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THE MAINE BULLETIN

Vol. XXXV APRIL, 1933 No. 8

University of Maine

Orono, Maine

Catalog Number with Records of the Sessions of 1932-1933

Announcements for the Sessions of 1933-34

THE UNIVERSITY PRESS
ORONO, MAINE
1933

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JANUARY						
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Calendar

1933

January 3, Tuesday, Christmas recess ends, 8 A.M.
January 25, Wednesday, Final Examinations begin in Arts and Sciences and Education.
January 27, Friday, Final Examinations begin in Agriculture and Technology.
February 3, Friday, Final Examinations end. End of Fall Semester, 5:05 P.M.

SPRING SEMESTER

February 4, Saturday, Registration 8 A.M. to 12 M.
February 6, Monday, Spring Semester begins 8 A.M.
February 22, Wednesday, Washington's Birthday, a holiday.
March 24, Friday, Spring Recess begins 11:30 A.M.
April 4, Tuesday, Spring Recess ends, 8 A.M.
May 22, Monday-May 24, Wednesday, Entrance Examinations.
May 29, Monday, Final Examinations begin in Arts and Sciences and Education.
May 30, Tuesday, Memorial Day, a holiday.
May 31, Wednesday, Final Examinations begin in Agriculture and Technology.
June 9, Friday, Class Day.
June 10, Saturday, Alumni Day.
June 11, Sunday, Baccalaureate address.
June 12, Monday, Commencement.

SUMMER SESSION

July 5, Wednesday, Registration 8 A.M. to 12 M. and 1:30 to 4:30 P.M.
July 6, Thursday, Classes begin 7:30 A.M.
August 12, Saturday, Summer Session ends, 12 M.

1933

FALL SEMESTER

September 11, Monday-September 13, Wednesday, Entrance Examinations.
September 13, Wednesday, University opens for freshmen.
September 19, Tuesday, University opens for upperclassmen. Registration 8 A.M.-12 M. and 1:30-3 P.M.
November 30, Thursday, Thanksgiving Day, a holiday.
December 15, Friday, Christmas Recess begins 11:30 A.M.

1934

January 2, Tuesday, Christmas Recess ends, 8 A.M.
January 24, Wednesday, Final Examinations begin in Arts and Sciences and Education.
January 26, Friday, Final Examinations begin in Agriculture and Technology.
February 2, Friday, Final Examinations end. End of Fall Semester, 5:05 P.M.

SPRING SEMESTER

February 3, Saturday, Registration 8 A.M. to 12 M.
February 5, Monday, Spring Semester begins 8 A.M.
February 22, Thursday, Washington's Birthday, a holiday.
March 23, Friday, Spring Recess begins 11:30 A.M.
April 3, Tuesday, Spring Recess ends, 8 A.M.
May 21, Monday-May 23, Wednesday, Entrance Examinations.
May 28, Monday, Final Examinations begin in Arts and Sciences and Education.
May 29, Tuesday, Final Examinations begin in Agriculture and Technology.
May 30, Wednesday, Memorial Day, a holiday.
June 8, Friday, Class Day.
June 9, Saturday, Alumni Day.
June 10, Sunday, Baccalaureate address.
June 11, Monday, Commencement.

Board of Trustees

Hon. Harmon Gustavus Allen, President	Springvale
Term expires June 17, 1938	
Thomas Edward Houghton, Clerk	Fort Fairfield
Term expires May 6, 1934	
Bertram Everett Packard, B.A., LL.B., Ed.D., *ex officio*	Augusta
Hosea Ballou Buck, C.E.	Bangor
Term expires July 14, 1933	
William McCrillis Sawyer	Bangor
Term expires October 21, 1933	
John Thomas Gyger, M.S.	Portland
Term expires October 21, 1933	
Walter Alonzo Danforth	Bangor
Term expires May 4, 1935	
Edward Everett Chase, B.A.	Portland
Term expires January 10, 1936	
Frank Porter Washburn	Augusta
Term expires January 25, 1939	

Executive Committee, Buck, Danforth, Sawyer

Officers of Administration

OF THE UNIVERSITY

Harold Sherburne Boardman, President. 4 Alumni Hall; Campus*
James Norris Hart, Dean. 6 Alumni Hall; 123 Main Street
George Davis Chase, Dean of Graduate Study. 140 Stevens Hall; 143 Main Street
Achsa Mabel Bean, Dean of Women. 12 Coburn Hall; 11 Main Street
Lamert Seymour Corbett, Dean of Men. 26 Rogers Hall; Campus*
Roy Merle Peterson, Director of the Summer Session and Editor of the University Catalog. 23 Fernald Hall; 29 Bennoch Street
Walter Joseph Creamer, Jr., Director of Freshman Week. 22 Lord Hall; 404 French Street, Bangor
Louis Tappe Ibbotson, Librarian. Library; University Place
Charles John Dunn, Treasurer Emeritus. 114 Main Street
Frederick Shaw Youngs, Treasurer. 7 Alumni Hall; 225 Center Street, Bangor
James Adrian Gannett, Registrar. 2 Alumni Hall; 166 Main Street
Edward Havener Kelley, Comptroller. 5 Alumni Hall; 3 Summer Street
Irving Pierce, Accountant. 9 Alumni Hall; 34 Sixth Street, Old Town
Addie Matilda Weed, Recorder. 2 Alumni Hall; Veazie
Evelyn Taylor, Assistant Registrar. 2 Alumni Hall; 33 Bennoch Street
William Carl Wells, Dormitory Clerk. 106 Hannibal Hamlin Hall
Maynard Alton Hincks, Assistant to the Dean of Men. 25 Rogers Hall; 48 Main Street

---

OF THE COLLEGES AND EXPERIMENT STATION

Leon Stephen Merrill, Dean of the College of Agriculture. 18 Winslow Hall; Campus
Paul Cloke, Dean of the College of Technology. 12 Wingate Hall; 49 Forest Avenue
Olin Silas Lutes, Dean of the School of Education. 26 Fernald Hall; College Road

---

*Offices and residences

Fred Griffee, Director of the Maine Agricultural Experiment Station. Holmes Hall; 35 Park Street

James Muilenburg, Dean of the College of Arts and Sciences. 100 Stevens Hall; 37 Pine Street

OF THE DEPARTMENTS

Agricultural Economics and Farm Management. Professor Merchant, 36 Winslow Hall; 39 Mill Street

Agricultural Education. Professor Hill, 35 Winslow Hall, 162 College Road

Agronomy. Professor Simmons, 26 Winslow Hall; 7 Gilbert Street

Animal Industry. Professor Corbett, 26 Rogers Hall, Campus

Bacteriology and Veterinary Science. Professor Hitchner, 13 Winslow Hall, 51 Bennoch Street

Biological and Agricultural Chemistry. *Professor Smith, 15 Winslow Hall; 382 College Road

Biology (Agricultural Experiment Station). Professor Dove, Holmes Hall; 142 Park Street

Botany and Entomology. Professor Steinmetz, 24 Coburn Hall; 38 North Main Street

Chemistry and Chemical Engineering. Professor Brautlecht, 333 Aubert Hall; 63 Bennoch 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 Stevens Hall, 88 North Main Street

Education. Professor Lutes, 26 Fernald Hall; College Road

Electrical Engineering. Professor Barrows, 20 Lord Hall; 40 Myrtle Street

Engineering Drafting. Professor Kent, 38 Wingate Hall; 16 Sixth Street, Bangor

English. Professor Ellis, 230 Stevens Hall; 29 Park Street

Entomology (Agricultural Experiment Station). Professor Patch, Holmes Hall; College Road

Forestry. Professor Briscoe, 24 Winslow Hall; 380 College Road

---

*Assistant Professor Freeman is acting head of the department for 1932-33.

French. *Professor Kueny, 320 Stevens Hall; University Inn
German. Professor Drummond, 325 Stevens Hall; 61 Bennoch Street
Greek Language and Literature. Professor Huddilston, 28 Library; 193 Main Street
History and Government. Professor Dow, 145 Stevens Hall; 2 Middle Street
Home Economics. Professor Greene, 23 Merrill Hall; 6 University Place
Horticulture. Professor Waring, 34 Winslow Hall; College Road and Kell Street
Latin. Professor Chase, 140 Stevens Hall; 143 Main Street
Mathematics and Astronomy. Professor Willard, 130 Stevens Hall; 100 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; 36 Myrtle Street
Music. Professor Sprague, 350 Stevens Hall; 217 Union Street, Bangor
Philosophy. Professor Levinson, 335 Stevens Hall; 78 North Main Street
Plant Pathology (Agricultural Experiment Station). Professor Folsom, Holmes Hall; 63 Forest Avenue
Physical Education. Professor Wallace, 8 Alumni Hall; 45 Park Street
Physics. Professor Fitch, 200 Aubert Hall; 32 College Road
Psychology. Professor Dickinson, 120 Stevens Hall; Bennoch Street
Public Speaking. Professor Bailey, 240 Stevens Hall; University Place
Spanish and Italian. Professor Peterson, 23 Fernald Hall; 29 Bennoch Street
Zoology. Professor Young, 16 Coburn Hall; 15 University Place

OF THE DORMITORIES

Delia Bird Sullivan, Superintendent of Colvin Hall
Gertrude Hayes, Superintendent of the University Inn
Florence Merrill, Superintendent of Mt. Vernon House
Madeleine Jones Walenta, Superintendent of Balentine Hall
Celestia Stiles, Superintendent of the Maples

---

*Associate Professor Fundenburg is acting head of the department for 1932-33.

MAJOR ADMINISTRATIVE ASSISTANTS

Florence Elizabeth Johnson, Secretary to the President. 4 Alumni Hall
Ethel Nichols, Secretary to the Dean of the University. 6 Alumni Hall
Yvonne Morin, Secretary to the Dean of the College of Agriculture. 16 Winslow Hall
Kathleen Kelley, Secretary to the Dean of the College of Arts and Sciences. 100A Stevens Hall
Mildred French Creamer, Secretary to the Dean of the College of Technology. 12 Wingate Hall
Thelma Demont, Secretary to the Dean of the School of Education. 26 Fernald Hall
Mary Norton Cameron, Secretary to the Director of the Experiment Station. Holmes Hall
Dorothea Lewis Miller, Secretary to the Treasurer. 7 Alumni Hall
Geneva Morton, Secretary to the Dean of Men. 27 Rogers Hall

*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; LL.D., Bates, 1929

LUCIUS HERBERT MERRILL, Professor Emeritus of Biological and Agricultural Chemistry.
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 Emeritus of Bacteriology and Veterinary Science.
B.S., Maine, 1885; V.S., New York College of Veterinary Surgeons, 1886

JAMES STACY STEVENS, Dean Emeritus of the College of Arts and Sciences.
B.S., Rochester, 1885; M.S., 1888; M.S., 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; M.A., 1892; B.A., 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 Emeritus of History and Government.
B.A., Indiana, 1893; Ph.D., Pennsylvania, 1901; LL.D., Maine, 1927

CHARLES PARTRIDGE 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.
M.D., Bowdoin, 1889; Sc.D., Maine, 1922

GEORGE EDWARD SIMMONS, Professor of Agronomy.
B.S., Ohio Northern, 1902; M.S., 1905; B.Sc., Ohio State, 1909; D.Sc., Ohio Northern, 1922

*Arranged in groups in order of seniority of appointment.

William Edward Barrows, Professor of Electrical Engineering.
B.S., Maine, 1902; E.E., 1908

Lamert Seymour Corbett, Dean of Men and Professor of Animal Industry.
B.Sc., Massachusetts State College, 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 and Director of the Summer Session.
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 and Astronomy.
B.A. Dartmouth, 1899; M.A., 1902; M.A., Yale, 1910; Ph.D., Yale, 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 and Chemical Engineering.
Ph.B., Yale, 1906; Ph.D., 1912

Milton Ellis, Professor of English.
B.A., Maine, 1907; M.A., 1908; M.A., Harvard, 1909; Ph.D., Harvard, 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

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. ès L., University of Paris, 1897; L. ès L., Besançon, 1901

Charles Henry Merchant, Professor of Agricultural Economics and Farm Management.
B.S., Cornell University, 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; Ph.D., Michigan State College, 1930

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*On leave of absence, 1932-33.

PAUL CLOKE, Dean of the College of Technology and Director of the Technology Experiment Station.
E.E., Lehigh, 1905; M.S., 1913

CHARLES ALEXIUS DICKINSON, Professor of Psychology.
M.A., Clark, 1922; Ph.D., 1925

OLIN SILAS LUTES, Dean of the School of Education and Professor of Education.
B.A., Ohio University, 1915; M.A., State University of 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; M.S.E., Michigan, 1932

RONALD BARTLETT LEVINSON, Professor of Philosophy.
B.A., Harvard, 1920; Ph.D., Chicago, 1924

FERDINAND HENRY STEINMETZ, Professor of Botany and Entomology.
B.S., Illinois, 1915; M.S., Minnesota, 1921; Ph.D., 1926

DONNELL BROOKS YOUNG, Professor of Zoology.
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. B.A., Wisconsin, 1908

LOREN PRESCOTT STEWART, Professor of Military Science and Tactics.
Captain, Infantry (D.O.L.), U. S. Army. B.S., Maine, 1915

BENJAMIN CALVIN KENT, Professor of Engineering Drafting.
B.S., Maine, 1912

CHESTER ALBERT JENKINS, Professor of Physical Education.
B.S., Dartmouth, 1911; M.S., Maine, 1931

MAURICE DANIEL JONES, Professor of Agricultural Economics and Farm Management.
B.S., Maine, 1912; M.S., 1926

HUGH ANDREW WEAR, Professor of Military Science and Tactics.
Captain, Infantry (D.O.L.), U. S. Army. B.S., Texas Agricultural, 1914

ELMER REEVE HITCHNER, Professor of Bacteriology.
B.S., Pennsylvania State, 1915; M.S., 1916; Ph.D., Wisconsin, 1931

LLEWELLYN MORSE DORSEY, Professor of Dairy Husbandry.
B.S., Maine, 1916; M.S., 1923

STANLEY MOORE WALLACE, Professor of Physical Education.
Diploma, New Haven Normal School of Gymnastics, 1917

*Harry Woodbury Smith, Professor of Biological and Agricultural Chemistry.
B.S., Maine, 1909; M.S., 1922

Marion Deyoe Sweetman, Professor of Home Economics.
B.S., Iowa State College, 1921; M.S., 1922; Ph.D., Minnesota, 1927

Adelbert Wells Sprague, Professor of Music.
B.S., Maine, 1905; M.A., Harvard, 1907

Theodore Small Curtis, Faculty Manager of Athletics.
B.S., Maine, 1923

Sidney Sohns Eberle, Professor of Military Science and Tactics.
Major, Infantry (D.O.L.), U. S. Army. B.A., University of Washington, 1914

James Muilenburg, Dean of the College of Arts and Sciences.
B.A., Hope, 1920; M.A., Nebraska, 1922; Ph.D., Yale, 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; M.A., Columbia, 1919; Ph.D., 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

Albert Morton Turner, Associate Professor of English.
B.A., Harvard, 1912; M.A., 1914; Ph.D., 1920

Walter Joseph Creamer, Jr., Associate Professor of Electrical Communication 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

---

*On leave of absence, 1932-33.

Maynard Fred Jordan, Associate Professor of Mathematics and Astronomy.
B.A., Maine, 1916; M.A., 1921

Charles Burton Crofutt, Associate Professor of Physics.
B.A., Cornell College, 1919; M.S., State University of Iowa, 1920; Ph.D., 1923

Kenneth Stillman Rice, Associate Professor of Zoology.
Ph.B., Brown, 1913; Sc.M., 1915; Ph.D., 1927

John Robert Smyth, Associate Professor of Poultry Husbandry.
B.S., Purdue, 1920; M.S., Kentucky, 1928

George William Small, Associate Professor of English.
B.A., Tennessee, 1915; M.A., Johns Hopkins, 1921; Ph.D., 1922; B.Litt., Oxford, 1927

Edward French Dow, Associate Professor of History and Government and Acting Head of the Department.
B.S., Bowdoin, 1925; M.A., Harvard, 1926; Ph.D., 1932

Weston Sumner Evans, Associate Professor of Civil Engineering.
B.S., Maine, 1918; M.S., 1923

Harry Dexter Watson, Associate Professor of Mechanical Engineering.
B.S., Maine, 1920; M.S., 1929

Stanley Royal Ashby, Associate Professor of English.
B.A., Texas, 1904; B.A., Oxford, 1907; M.A., 1923; M.A., Harvard, 1925; Ph.D., 1927

Ernest Jackman, Associate Professor of Education and Director of Teacher Training.
B.A., Colby, 1912; M.A., Columbia, 1924

Walter French, Associate Professor of German.
B.A., Ohio State, 1912; M.A., 1915; Ph.D., 1918

Walter Whitmore Chadbourne, Associate Professor of Economics and Sociology.
B.A., Maine, 1920; M.B.A., Harvard, 1922

Edward Newcomb Brush, Associate Professor of Psychology.
B.A., Vermont, 1925; M.A., Harvard, 1926; Ph.D., 1932

George Baer Fundenburg, Associate Professor of French.
B.A., Princeton, 1916; M.A., 1917; Ph.D., Columbia, 1919

Chauncey Wallace Lord Chapman, Assistant Professor of Forestry.
B.S., Maine, 1914; M.S., 1921

Leigh Philbrook Gardner, Assistant Professor of Poultry Husbandry.
B.S., Maine, 1920; M.S., 1923

Warren Stanhope Lucas, Assistant Professor of Mathematics.
B.A., Maine, 1914; M.A., 1922

Carl Everett Otto, Assistant Professor of Chemistry.
B.A., Cincinnati, 1916; M.A., 1920; Ph.D., 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., 1915

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

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 State College, 1924; M.S., Iowa State College, 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., Yale, 1918; M.E., 1923

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; M.A., 1930

Lyle Clayton Jenness, Assistant Professor of Chemistry.
B.S., New Hampshire, 1922; M.S., Maine, 1925

George Peter Steinbauer, Assistant Professor of Botany.
B.S., Minnesota, 1925; M.S., 1927; Ph.D., 1929

Marguerite Ruth Musgrave, Assistant Professor of Home Economics.
B.S., Columbia, 1925; M.A., 1926

Ruth Crosby, Assistant Professor of English.
B.A., Mount Holyoke, 1919; M.A., Radcliffe, 1920; Ph.D., 1929

John Raymond Crawford, Assistant Professor of Education and Director of Bureau of Educational Research and Service.
B.A., Culver-Stockton, 1924; M.A., State University of Iowa, 1929; Ph.D., 1931

Monroe Edward Freeman, Assistant Professor of Biological and Agricultural Chemistry.
B.A., Minnesota, 1928; M.S., 1929; Ph.D., 1931

Robert Irving Ashman, Assistant Professor of Forestry.
B.A., Cornell University, 1913; M.F., Yale, 1929

Howe Wiggin Hall, Assistant Professor of Animal Husbandry.
B.S., Maine, 1914; M.S., 1925

Earl Maynard Dunham, Assistant Professor of Engineering Drafting.
B.A., Maine, 1924; M.A., 1928

Fay Hyland, Assistant Professor of Botany.
B.S., Michigan State College, 1925; M.S., Maine, 1929

Cecil Gladstone Garland, Assistant Professor of Economics and Sociology.
B.A., Maine, 1924; M.A., Brown, 1927

William Lester Gilliland, Assistant Professor of Chemistry.
B.S., University of Washington, 1920; M.S., 1921; Ph.D., Massachusetts Institute of Technology, 1925

Alfred Carleton Andrews, Assistant Professor of Latin.
B.A., Bowdoin, 1926; M.A., Pennsylvania, 1930; Ph.D., 1931

Lillian Maynard Hatfield, Assistant Professor of Psychology.
B.A., Lake Forest, 1923; M.A., Illinois, 1924; Ph.D., Cornell University, 1928

Helene Heye, Assistant Professor of Home Economics.
B.S., Hastings College, 1925; M.S., Iowa State College, 1927

John Franklin Witter, Assistant Professor of Animal Pathology.
B.S., Maryland, 1928; D.V.M., Michigan State College, 1932

John Henry Magee, Acting Assistant Professor of Economics and Sociology.
B.A., Maine, 1917; M.A., 1931

Everett Willard Davee, Instructor in Mechanical Engineering.

Everett Joshua Felker, Instructor in Civil Engineering.
B.S., Maine, 1931

Harry Roy Perkins, Instructor in Mechanical Engineering.

Herman Samuel Silverman, Instructor in Mathematics.
B.A., Maine, 1925; M.A., 1927

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

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; M.A., Columbia, 1931

Theron Alonzo Sparrow, Instructor in Mechanical Engineering.
B.S., Maine, 1924

Ada Cohen Silverman, Instructor in German.
B.A., Maine, 1926; M.A., 1930

Marion Elizabeth Rogers, Instructor in Physical Education for Women.
Diploma, Sargent School for Physical Education, 1927; B.A., Maine, 1930

Herschel Leonard Bricker, Instructor in Public Speaking.
B.A., Coe, 1928

Gladys Marie Gould, Instructor in Home Economics.
B.S., Maine, 1922

Lawrence Lewis Osborn, Instructor in Chemistry.
B.A., Indiana, 1924; M.A., 1927

John Emmons Stewart, Instructor in Mathematics.
B.A., Maine, 1927; M.A., 1928

Walter Reginald Whitney, Instructor in English.
B.S., Bowdoin, 1923

Edgar Junior Bogan, Instructor in Chemistry.
B.A., Miami, 1926; M.A., Princeton, 1929

Roger Clapp, Instructor in Horticulture.
B.S., Cornell University, 1928; M.S., Maine, 1932.

Frederick John Guerin, Instructor in Chemistry.
B.S., Massachusetts Institute of Technology, 1922; M.S., 1923; Ph.D., New York University, 1928

Glenn Quenton Lefler, Instructor in Physics.
B.A., Indiana, 1929; M.A., 1932

Richard McVay Riley, Instructor in Horticulture.
B.S., Ohio University, 1926; M.S., Cornell University, 1929

Ralph Albert Sawyer, Instructor in Engineering Drafting.
B.S., Norwich, 1925

Leonidas Dacosta Stephenson, Jr., Instructor in Civil Engineering.
B.S., North Carolina State College, 1927.

Elizabeth Sophia Foster, Instructor in English
B.A., Texas, 1922; M.A., 1923

Arlin Miller Cook, Instructor in English.
B.A., Western Reserve, 1927; M.A., Columbia, 1928

Pauline Elma Darby, Instructor in Zoology.
B.S., Arizona, 1928; M.S., Washington University, 1930

MAX HENDRICKS GUYER, Instructor in History and Government.
B.A., Parsons, 1926; M.A., State University of Iowa, 1927

FRED LINCOLN LAMOREAU, Instructor in Mathematics and Astronomy.
B.A., Maine, 1930

JAMES MORELAND, Instructor in English.
B.A., Georgetown College, 1924

DELYTE WESLEY MORRIS, Instructor in Public Speaking.
B.A., Park, 1928

BERNARD FRANKLIN PARR, Instructor in Mechanical Engineering.
B.S., Illinois, 1929

WILBUR EVERETT TOMLIN, Instructor in Chemistry.
B.A., Kentucky Wesleyan, 1926; M.A., Columbia, 1931

*JOSEPH CONRAD TWINEM, Instructor in Civil Engineering.
B.S., Massachusetts Institute of Technology, 1930

WARREN HERBERT BLISS, Instructor in Electrical Engineering.
B.S., Michigan State, 1928; M.S., 1931

ROBERT BECHTOLD HEILMAN, Instructor in English.
B.A., Lafayette, 1927; M.A., Ohio State, 1930; M.A., Harvard, 1931

MABEL LANCASTER STEWART, Instructor in Home Economics.
B.S., Maine, 1931

MERTON STANLEY PARSONS, Instructor in Agricultural Economics and Farm Management.
B.S., Maine, 1929; M.S., 1931

HENRY GRUBER STETLER, Instructor in Sociology.
B.S., Franklin and Marshall, 1928; M.A., Columbia, 1930

RUTH REBECCA STONE, Instructor in English.
B.A., Ohio Wesleyan, 1930; M.A., Smith, 1931

FRANK DAVID DONCHECZ, Instructor in Military Science and Tactics.
Sergeant (D.E.M.L.), U. S. Army

ELIZABETH RING, Instructor in History and Government.
B.A., Maine, 1923; M.A., 1926

LINWOOD JULES BOWEN, Instructor in Biological and Agricultural Chemistry.
B.S., Maine, 1932

HUGH DONALD CHASE, Instructor in Civil Engineering.
B.S., Massachusetts Institute of Technology, 1931; M.S., 1932

CHARLES LESTER SMITH, Instructor and Critic Teacher, School of Education
B.A., Harvard, 1907

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*On leave of absence, 1932-33

Veysey Hiram Robinson, Instructor and Critic Teacher, School of Education.
B.Ped., Maine, 1917
Alice Lowe Brown, Critic Teacher, School of Education.
B.A., Colby, 1899
Grace Stetson Grant, Critic Teacher, School of Education.
B.A., Colby, 1907
Helen Louise Hathorne, Critic Teacher, School of Education.
B.A., Maine, 1922
Horace Alcander Croxford, Critic Teacher, School of Education.
B.A., Maine, 1930
Sarah Jane Thompson, Critic Teacher, School of Education.
B.A., Maine, 1929
Caroline Ella Collins, Critic Teacher, School of Education.
B.A., Maine, 1929

David Emmons Barker, Graduate Fellow in Economics and Sociology.
B.A., Maine, 1931
Frances Cole Downes, Graduate Fellow in Zoology.
B.A., Maine, 1931
Alfred Warren Perkins, Graduate Fellow in Mathematics.
B.A., Maine, 1931
Edwin Sherman Worster, Graduate Fellow in French.
B.A., Lafayette, 1931
Rachel Louise Rogers, Graduate Fellow in Physics.
B.A., Oberlin, 1931
Fred Eugene Blanchard, Graduate Fellow in Dairy Husbandry.
B.S., Vermont, 1931
Jean Louise Captain, Graduate Fellow in Zoology.
B.A., Mount Holyoke, 1931
Muriel Freeman, Graduate Fellow in German.
B.A., Maine, 1932
Keith H. Lewis, Graduate Fellow in Bacteriology.
B.A., Wisconsin, 1932
Howard Lewis Mendall, Graduate Fellow in Zoology.
B.A., Maine, 1931
Eugene Cecil Ogden, Graduate Fellow in Botany and Entomology.
B.S., Michigan State College, 1932
Abbie Louise Sargent, Graduate Fellow in Spanish.
B.A., Maine, 1932

Leola Bowie Chaplin, Graduate Scholar in English.
B.A., Maine, 1917
Isabelle Avesia Robinson, Graduate Scholar in English.
B.A., Maine, 1932

Herbert Burr Abbott, Mechanician in the Mechanical Engineering Department.
Leo Edward Day, Assistant in State Highway Laboratory.
Ralph Freeman Bowden, Electrician in the Electrical Engineering Department.
Clayton Leonard Sawyer, Assistant in the State Highway Laboratory.
Anne Louise Morrison, Resident Health Nurse.
R.N., Eastern Maine General Hospital, Bangor, 1928
Anna Elizabeth Fahey, Resident Health Nurse.
R.N., Eastern Maine General Hospital, Bangor, 1931
Dorothy Smith, Reference Librarian.
B.S., Simmons School of Library Science, 1921
Mary Florence Reed, Cataloger.
B.A., Maine, 1929; B.S., Simmons School of Library Science, 1930
Dorothy Mayo Morris, Circulation Assistant in the Library.
B.A., Maine, 1930
Louise Grindle Gray, Clerk in the Library.
Mary Rich Carter, Assistant in the Library.
B.A., Maine, 1931

VISITING MEMBERS OF SUMMER SESSION FACULTY

Session of 1932

At Orono

William Ellsworth Brunton, Supervisor, Industrial and Continuation School Education, State of Pennsylvania. Graduate, Williamson Trade School and Philadelphia Marine Engineering School *Education*

Dorothy Brown Dean, Formerly Supervisor of Music, Public Schools, Bangor, Maine.
B.A., Smith, 1924 *School Music*

Howard Watson Flack, Athletic Director and Coach, High School, Pottsville, Pennsylvania.
B.A., Syracuse, 1914 *Physical Education*

George Lease Glauner, Professor of History, West Virginia Wesleyan College.
B.A., Otterbein, 1919; M.A., Syracuse, 1923 *History*

Helen Crandall Goodspeed, Assistant to Director of Home Economics, City Schools, Philadelphia, Pennsylvania.
B.S., Teachers College, Columbia, 1917; M.A., Wisconsin, 1923 *Home Economics*

Mattie Louise Hatcher, Specialist in Reading and Supervisor of Elementary Education, State Normal School, Paterson, New Jersey.
Pb.B., Chicago, 1909; M.A., 1920 *Education*

Chester Winfield Holmes, Principal of Langley Junior High School, Washington, D. C.
B.S., Harvard, 1916; Ed.M., 1924 *Education*

Effie Barnum Mallett, School Psychologist, Bridgeport, Connecticut.
B.S., New York University, 1928; M.A., 1931 *Education*

Paul Sloat Miller, Principal of Eastern School, East Orange, New Jersey, and Instructor (Part Time) in School of Education, New York University.
B.A., Gettysburg, 1910; M.A., Yale, 1922; Ph.D., New York University, 1928 *Education*

Mary Isabelle O'Sullivan, Professor of English, Rosemont College.
B.A., Bryn Mawr, 1907; M.A., 1922; Ph.D., 1925 *English*

Edith Philips, Associate Professor and Acting Chairman of the Department of Romance Languages, Swarthmore College.
B.A., Goucher, 1913; Docteur de l'Université, Paris, 1923 *French*

Sue Procter, Supervisor of Primary Work, City Schools, and Principal of

Ruth Moyer Elementary School, Fort Thomas, Kentucky.
Graduate of Western Kentucky State Teachers' College, 1909
Education

Percie Hopkins Turner, Formerly Assistant Professor of English, University of Maine.
B.A., Smith, 1917; M.A., 1920; M.A., Radcliffe, 1923; Ph.D., 1924 *English*

Carl Jefferson Weber, Roberts Professor of English Literature, Colby College.
B.A., Johns Hopkins, 1914; B.A., Oxford, 1916; M.A., 1920 *English*

At the Lamoine Biological Station

Elizabeth Margaret Boyd, Assistant in Zoology, Mount Holyoke College.
Hons. B.Sc., Edinburgh, 1930 *Junior Instructor*

Earl Theron Engle, Associate Professor of Anatomy, College of Physicians and Surgeons, Columbia University.
B.A., Nebraska Wesleyan, 1920; M.A., University of Colorado, 1924; Ph.D., Stanford, 1925 *Zoology*

Margaret Forster, Teacher, The Lee School, Boston, Massachusetts.
Junior Instructor

Edith Elizabeth Mortensen, Assistant Professor of Biology, St. Paul-Luther College.
B.A., Carleton, 1925; M.A., Minnesota, 1927 *Zoology*

Margaret Boe Nivison.
B.A., Wellesley, 1932 *Junior Instructor*

Leslie Weldon Remley, Teacher, High School, Maywood, Illinois.
B.A., Wabash, 1925 *Junior Instructor*

Dorothy Richardson, Instructor in Zoology, Mount Holyoke College.
B.A., Mount Holyoke, 1924; Ph.D., Yale, 1931 *Zoology*

Harvey Leroy Sweetman, Assistant Professor of Entomology, Massachusetts State College.
B.S., Colorado Agricultural College, 1923; M.S., Iowa State College, 1925; Ph.D., Massachusetts State College, 1930 *Zoology*

Faculty of Investigation

(THE MAINE AGRICULTURAL EXPERIMENT STATION)

Fred Griffee, Director.
B.S., Kansas, 1918; M.S., Minnesota, 1920; Ph.D., 1924

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

Pearl Stuart Greene, Home Economist.
B.A., Northwestern, 1909; B.S., Lewis Institute, 1914; M.A., Columbia, 1923

Clarence Ritchie Phipps, Entomologist.
B.S., Massachusetts State College, 1919; M.S., Iowa, 1927; Ph.D., Cornell University, 1930

William Franklin Dove, Biologist, Animal Breeding and Nutrition.
B.S., Iowa State College, 1922; M.S., Wisconsin, 1923; Ph.D., 1927

Charles Harry White, Associate Chemist.
Ph.C., Maine, 1897

*Reiner Bonde, Associate Plant Pathologist.
B.S., Minnesota, 1922; M.S., Maine, 1926

†George Farrington Dow, Associate Agricultural Economist.
B.S., Maine, 1927; M.S., 1929

Marion Deyoe Sweetman, Associate Home Economist.
B.S., Iowa State College, 1921; M.S., 1922; Ph.D., Minnesota, 1927

Joseph Anthony Chucka, Associate Biologist, Plant Breeding and Nutrition.
B.S., Wisconsin, 1927; M.S., 1928; Ph.D., 1930

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*On leave of absence, February 1, 1933 to April 15, 1933.

†On leave of absence for eight months, beginning October 1, 1932.

Russell Manley Bailey, Associate Biologist, Plant Breeding and Nutrition.
B.S., Maine, 1928

Lolie Smith, Associate Home Economist.
B.S., Texas State College, 1916; M.S., Kansas State College, 1930

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

Florence Lydia Markin, Assistant Plant Pathologist.
B.S., University of Montana, 1924; M.S., Wisconsin, 1926

William Ernest Schrumpf, Assistant Agricultural Economist.
B.S., Maine, 1928; M.S., 1930

Merton Stanley Parsons, Assistant Agricultural Economist.
B.S., Maine, 1929; M.S., 1931

Frederick Barker Chandler, Assistant Biologist in Charge of Blueberry Investigations.
B.S., Maine, 1928

Geddes Wilson Simpson, Assistant Entomologist.
B.A., Bucknell, 1929; M.A., Cornell University, 1931

George Peter Steinbauer, Seed Analyst, Department of Inspections.
B.S., Minnesota, 1925; M.S., 1927; Ph.D., 1929

Mildred Rebecca Covell, Assistant in Biology.

Iva Merchant Burgess, Assistant in Biology.
B.S., Maine, 1923; M.S., 1925

Elizabeth Florence Murphy, Assistant in Animal Breeding and Nutrition.
B.A., Maine, 1930

Merna Mertha Monroe, Assistant in Home Economics Research.
B.S., Iowa State College, 1929; M.S., Kansas State College, 1932

Elaine Mary Pooler, Chief Assistant in Agricultural Economics.

Magretta Blackmore, Assistant in Agricultural Economics.

Dorrice Elaine Smith, Assistant in Agricultural Economics.

Alice Woods Averill, Laboratory Assistant in Entomology.

Emmeline Wilson Kenney, Laboratory Assistant in Biology.

Gladys Elizabeth Babbin, Seed Analyst and Laboratory Assistant in Plant Pathology.

Delmar Boynton Lovejoy, Laboratory and Field Assistant, Plant Breeding and Nutrition.
B.S., Maine, 1928

Irvin Carroll Mason, Laboratory and Field Assistant, Blueberry Investigations.
B.S., Maine, 1930; M.S., 1932

Faculty of Extension Service

(COLLEGE OF AGRICULTURE)

Arthur Lowell Deering, Director.
B.S., Maine, 1912

State Agents

Raymon Neale Atherton, Extension Economist, Marketing.
B.S., Maine, 1918
Edna Mansfield Cobb, Home Management Specialist.
B.S., Cornell University, 1928
Albert Kinsman Gardner, Crops Specialist.
B.S., Maine, 1910
George Edgar Lord, County Agent Leader.
B.S., Maine, 1924
Wendell Earl Mosher, Executive Secretary to Director of Extension.
B.S., Maine, 1929
Estelle Nason, State Home Demonstration Agent Leader.
B.S., Maine, 1922
Albert Deane Nutting, Forestry Specialist.
B.S., Maine, 1927
Donald Winslow Reed, Extension Economist, Farm Management.
B.S., Maine, 1922
Harrison Lambert Richardson, Poultry Specialist.
B.S., Maine, 1924
Glenn Kenton 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
Loana Mary Spearin, Assistant State Club Leader.
Richard Foster Talbot, Dairy Specialist.
B.S., Maine, 1907
Clesson Nathan Turner, Agricultural Engineer.
B.S., Cornell University, 1931
Therese Elizabeth Wood, Foods Specialist.
B.S., Western Reserve, 1923

County Agents

Verne Curtis Beverly, Aroostook County.
B.S., Maine, 1920

Ralph Ashton Corbett, Franklin County.
B.S., Maine, 1930

Clarence Albert Day, Kennebec County.
M.S., Maine, 1929

Richard Carlton Dolloff, Assistant County Agent, Aroostook County.
B.S., Maine, 1927

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

Raymond Harwood Lovejoy, York County.
B.S., Maine, 1921

Donald Harry Ridley, Oxford County.
B.S., Maine, 1927

Wilfred Sherman Rowe, Cumberland County.

Melzor Stetson Smith, Penobscot County.
B.S., Maine, 1931

Gardner Berry Tibbetts, Hancock County.
B.S., Maine, 1922

Ralph Carlton Wentworth, Knox and Lincoln Counties.
B.S., Maine, 1918

Oscar Lewis Wyman, Piscataquis County.
B.S., Maine, 1926

Home Demonstration Agents

Mary Swan Barney, Hancock County.
B.S., Simmons, 1926

Hortense Bradbury, Washington County.

Ada Brewster, Oxford County.
B.S., Simmons, 1919

Margaret Lillian Childs, Kennebec County.

Charlotte Elizabeth Cleaves, Penobscot County.
B.S., Maine, 1931

Leone Mae Dakin, Aroostook County.
B.S., Maine, 1926
Lucy Farrington, Piscataquis County.
B.S., Maine, 1927
Agnes Freyer Gibbs, Cumberland County.
B.S., Framingham Normal, 1926
Emily Keats Hull, Franklin County.
B.S., Elmira, 1932
Jessie Mildred Lawrence, Knox and Lincoln Counties.
B.S., Maine, 1928
Agnes May Massé, Waldo County.
B.S., Maine, 1928
Doris Elaine Urquhart, Somerset County.
B.S., Rhode Island State, 1927
Jean Warren, York County.
B.S., Cornell University, 1929
Hortense Agnes Welch, Androscoggin and Sagadahoc Counties.
B.S., Maine, 1927

County Club Agents

Earle Theodore Blodgett, York County.
B.S., Maine, 1927
Ruth Mabelle Clark, Knox and Lincoln Counties.
B.S., Maine, 1932
Effie Gower Jones, Kennebec County.
Kenneth Cousins Lovejoy, Waldo County.
B.S., Maine, 1928
Martha Corinne Merrill, Penobscot County.
B.S., Farmington Normal, 1928
Alva Merwin Ranger, Cumberland County.
Gilberta Phoebe Watters, Oxford County.
B.S., Maine, 1932

Faculty Committees

ADMINISTRATION—President, University and College Deans, Dean of Men, Registrar, Treasurer

ATHLETICS—Corbett, Gardner, A. K., Kent

EDUCATIONAL RESEARCH—Hart, Bryan, Chadbourne, W. W., Crawford, Creamer, Dickinson, Evans, Fitch, Greene, Jones, Leavitt, Lutes, Merchant, Sweetman, Young

ELIGIBILITY—Gannett, Bean, Curtis, Sprague, A. W.

FINANCIAL AFFAIRS—Youngs, Kent, Pierce

HEALTH—Young, Bean, Foster, Greene, Jenkins, Oliver, Wallace

HONORS—Ellis, Brann, Chadbourne, A. H., Creamer, Merchant

MILITARY—Oliver, Boardman, Cloke, Lutes, Merrill, L. S., Muilenburg

PUBLICATIONS—Gannett, Dorsey, Ibbotson, Leavitt, Peterson

PUBLICITY—Moreland, Bray, Crawford, Crossland, Gannett, Jones

SCHEDULE—Weston, Dorsey, Evans, Gannett, Peterson, and College Deans

SECONDARY SCHOOL RELATIONS—Hart, Cloke, Lutes, Merrill, L. S., Muilenburg

SOCIAL AFFAIRS—Corbett, Bean, Buzzell, Drummond, Sweetser, Youngs

WOMEN STUDENTS—Bean, Buzzell, Chadbourne, A. H., Foster, Greene, Lengyel, Sweetman

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. Women have been admitted as students since 1872, in compliance with special legal enactment. The original name was changed to the University of Maine in 1897. The School of Education was established in 1930.

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 Fertilzer Control and Agricultural Experiment Station, which had been established 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 was discontinued in 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 and educational administrators and for college students who desire to make up work or secure additional credits.

To provide permanently for the support of the University the Legislature in 1929 passed an act levying a tax of one mill on the general property valuation of the State.

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 3,400 population, with good schools and four churches. The extensive campus, situated about a mile from the business section, borders the Stillwater River, a branch of the Penobscot, and is of great beauty.

Orono is situated on the main line of the Maine Central Railroad, eight miles east of Bangor. It is half way between Kittery, the most southerly town in the State, and Fort Kent, the most northerly. It is not far from the center of population of the State. The campus, which is nine miles from Bangor and three from Old Town, is connected with both cities by a paved highway offering easy access by automobile. Cars of the Bangor Hydro-Electric Company also afford a half-hour trolley service in both directions.

Bangor, the third city of the State in size, has a population of about 29,000 and is an important business center. The location of the University gives students an opportunity to avail themselves of its social, religious, and other advantages. Old Town is a prosperous manufacturing city with about 7,200 inhabitants.

BUILDINGS AND THEIR EQUIPMENT

Balentine Hall.—This building, erected in 1914, is the largest dormitory for women on the campus. It consists of three stories and a basement and has accommodations for 121 students. The name was given in honor of Elizabeth Abbott Balentine, secretary and registrar of the University from 1895 to 1913.

Colvin Hall.—This building, the newest dormitory on the campus, was completed in 1930. It is a three-story brick structure of colonial style with accommodations for fortiy-eight girls. It was named for Professor Caroline Colvin, of the Department of History and Government, who served as the first dean of women at the University.

Hannibal Hamlin Hall.—A men's dormitory, completed in 1911, which 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.

The Maples.—A three-story wooden building remodeled in 1931, accommodating forty-nine students. It is used as a dormitory for freshman women.

Mount Vernon House.—A three-story wooden building, remodelled in 1898, which is used as a dormitory for women. It has accommodations for thirty-three students.

North Hall.—A two-story frame building used as the laboratory for the course in Household Administration by the Department of Home Economics.

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 ninety-six students.

University Inn.—A four-story wooden building, located in the village of Orono, which was purchased by the University to provide living quarters for members of the faculty. It has accommodations for twenty persons.

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, assembly room, and administrative offices. The assembly room is now provided with a pipe organ, the gift of the Eastern Maine Musical Association.

Aubert Hall.—A four-story building, including a high basement, which 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, chiefly used by the Departments of Botany and Entomology and of Zoology, contains also 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.

Crosby Laboratory.—This building, with a main section two stories high and two wings of one story, contains the laboratories of the Department of Mechanical Engineering. The main section houses the equipment for work in hydraulics, steam engineering, and compressed air; the wings are devoted to testing operations of various kinds. The building is named in honor of the Hon. Oliver Crosby, class of '76, who bequeathed $100,000 for its construction.

Fernald Hall.—This building, the oldest on the campus, was named in honor of ex-President Merritt C. Fernald. It contains offices and class-

rooms used by The School of Education, and the Department of Spanish and Italian, the University Store, and the offices of the alumni secretary and the director of physical education for women.

Holmes Hall.—A two-story building, in addition to a basement, which contains the offices and laboratories of the Maine Agricultural Experiment Station. 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, 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.

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.

Maine Christian Association Building.—Used chiefly by the Maine Christian Association, but also contains the offices of the Maine *Campus*. On the ground floor are reading and social rooms for men and the general offices of the M.C.A., and on the second floor recreation and lunch rooms for women, the office of the Secretary for Women, and a chapel for private devotions. The *Campus* offices are on the third floor.

Merrill Hall.—This three-story brick building was erected in 1930 for resident teaching, extension, and experiment station work in Home Economics. Besides offices and classrooms it contains laboratories for student work in child development, institutional management, household equipment, foods and nutrition, art, clothing and textiles; and research laboratories for nutrition, foods, and household management. The building is named in honor of Dean Leon S. Merrill of the College of Agriculture.

Poultry Building.—The two-story wooden building at the south end of the campus, originally the University Dairy, has been altered and renovated for the use of the Poultry Division of the Department of Animal Industry. It contains on the ground floor a battery brooder room and a fattening and killing room, while on the second floor are located offices, classrooms, and an animal pathology laboratory.

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 contains offices, class rooms, and a research laboratory. The building was named in honor of Dr. Lore A. Rogers, Chief, Re-

search Laboratories, Bureau of Dairy Industry, United States Department of Agriculture.

Stevens Hall.—The Arts and Sciences Building, recently rechristened Stevens Hall in honor of Dean Emeritus James S. Stevens, consists of forty-six class rooms and offices. To this are now added two wings which will house, besides the School of Education, the departments of Spanish and Italian, French, Music, Psychology, and Economics and Sociology. The rooms are spacious and modern in every way. A large part of one wing is devoted to laboratories and work rooms for the Department of Psychology.

Wingate Hall.—This building, containing three stories and a basement, is used by the Departments of Civil Engineering, Mechanics, and Engineering Drafting. It contains also the office and laboratory of the Technology Experiment Station as well as the office of the dean of the College of Technology.

Winslow Hall.—A four-story building, including the basement, which 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 hay storage barn, a piggery, a sheep barn, and a tool house. During 1931 a modern horse barn was built, and the old horse barn converted into a farm implement storage building, both located directly north of the dairy barns.

Horticultural Greenhouses.—Three 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. Two of these houses are devoted to the growing of flowers, ornamental plants, and vegetables. The third house was erected in 1932 by the Maine Agricultural Experiment Station for use in experimental studies of plant breeding, physiology, and pathology. The service building contains work rooms, laboratories, a classroom, sales and storage rooms, and a basement winter-storage room.

Milk House.—The milk house, located west of the dairy barns, is designed to serve as a demonstrational laboratory in milk handling and processing. It contains a milk room, bottle and can washing room, laundry,

boiler room, milk testing room, mechanically refrigerated holder for milk, and an office for herdsman and dairyman.

Research Building.—The old greenhouse of wood-frame type, east of Holmes Hall, is utilized by several departments for investigational work requiring greenhouse space. The two-story frame building attached provides office space on the second floor for several extension specialists, while the first floor is devoted to research laboratories equipped for studies in biological chemistry and in bacteriology.

College of Agriculture Poultry Plant.—Consists of a two and one-half story building to which is attached a permanent brooder 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 a service building, with two wings as laying pens. The service building is two stories and a half high with separate rooms for incubator, egg storage, root storage, grain mixing and grain storage space, and post-mortem and hospital for sick birds. On the second floor are located chick battery rooms, and laboratories for experiments in physiology and nutrition.

Stock Judging Pavilion.—This is an octagonal structure located in the rear of Winslow Hall. It has a seating capacity of 400.

Memorial Gymnasium Armory.—This Memorial is composed of two units, the Indoor Field-Armory and the Gymnasium. The Indoor Field, which was built in 1926, is believed to be the largest in the world, being 340 feet long, 168 feet wide, and 70 feet high. The Gymnasium unit is now under construction. It is to be 150 feet deep, 137 feet wide, and three stories high. It will include many new facilities not available in the present gymnasium. The structure. which when completed will cost in excess of $450,000, is a Memorial to those Maine men who died in the World War. The funds for its construction were contributed by alumni, faculty and friends.

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 4,600.

Athletic Field for Women.—A new field on the southern end of the campus consists of a regulation hockey field, archery range, seventy-five yards of cinder straightaway, and a twenty-four foot jumping pit. A field house 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.

Central Heating Plant.—The Central Heating Plant is located on low ground so that the buildings drain by gravity to the plant. It contains three 150 H.P. horizontal return tubular boilers equipped with Perfection Semi-Automatic Stokers, and two 290 H.P. H Type Stirling water tubular boilers equipped with Westinghouse Automatic Stokers with overhead coal bunkers and scales for weighing coal. The smoke stack is 150 feet in height.

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.

Fraternity Houses.—The local chapters of Beta Theta Pi, Delta Tau Delta, Kappa Sigma, Lambda Chi Alpha, 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: Alpha Tau Omega, Phi Gamma Delta, 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, and Sigma Chi on North Main Street. Tau Epsilon Phi rents a house on College Road, and Eta Nu Pi on Park Street. These houses accommodate from twenty to fifty students each.

Sorority Houses.—The local chapter of Delta Delta Delta owns a residence on College Road. The chapter of Pi Beta Phi has an attractive log cabin, which is used for social events.

THE UNIVERSITY FARMS

The University farms consist of approximately 495 acres divided into two farms, one of which adjoins the campus while the other is located in Stillwater. The land under cultivation amounts to 230 acres, divided as follows: 180 acres for farm crops, ten acres for orchards, two acres for the forest

nursery, eighteen acres for poultry lots, twenty acres for systematic forestry, and 265 acres for forest and pasture lands. These farm lands, together with the campus, make the University holdings at Orono and vicinity approximately 595 acres.

THE LIBRARY

The University Library contained at the end of the academic year 105,039 volumes and 28,992 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 at Bangor; Agricultural Experiment Station Library, 7,299 volumes, on deposit in the Library Building; Reference Collections shelved in the Department of Physics and the College of Agriculture. About 460 periodicals are subscribed for by the library; 200 received as gift or exchange; 100 received 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 seminar rooms are shelved German, French, Spanish, Italian, Greek, and Latin literature and language; history; and material relating to the State and the University of Maine. The two basement reading rooms contain the books and periodicals on the subjects of education and agriculture. 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.

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 in the 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: seven-day books, which include fiction, popular non-fiction, and bound education magazines; Experiment Station books which may only circulate with the written order of the Director, and to members of the Station staff; reference books, reserved books, and current numbers of magazines, which may be taken out of the building only overnight.

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.

Library Hours

8 a.m.—9:30 p.m. Monday—Thursday
8 a.m.—5 p.m. 6:30—9 p.m. Friday
8 a.m.—5 p.m. Saturday
2 p.m.—9:30 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 ocvering 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 reproductions 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 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 room 24 on the second floor. 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.—The greater part of these collections are stored in the general storeroom in Alumni Hall. Wall cases containing such specimens as are necessary for classroom illustrations have been placed in Winslow and Wingate Halls.

UNIVERSITY PUBLICATIONS

Maine Bulletin.—This is a publication issued monthly from August to May inclusive with two issues in the month of March, to give information

to the alumni and the general public. It includes the Biennial 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, News, and Radio Releases.—These are issued by the Extension Service. Single copies of bulletins and circulars will be mailed to any Maine resident who makes the request. News releases are sent to all daily and weekly newspapers. Radio releases are issued each week to four coöperating broadcasting stations in Maine.

Technology Experiment Station Publications.—Bulletins are published giving the results of investigations and research, and are sent free of charge on request.

The Maine Alumnus.—This is published nine times during the academic year by the General Alumni Association and is sent to former students of the University.

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

HEALTH SERVICE

This department, located in 8 Coburn Hall, offers to the students the services of two nurses and part time services of physicians. It is equipped to supervise the care of students on the campus who are ill; assists and coöperates 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

A registration bureau for teachers, located in the office of the Dean of the School of Education in Stevens Hall, undertakes to assist properly qualified graduates and former students in securing positions. All seniors who plan to teach are urged to register with the committee. Correspondence with officials who are looking for teachers is welcomed. A fee of $1.50 is charged for this service to students.

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. It is formally recognized by the faculty and the board of administration as the official and truly representative group in all matters that call for discussion and adjustment between the student body and its superiors. 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 coöperation in the work of self-government among the women of the University.

Religious Activities

Maine Christian Association.—The Maine Christian Association, open to all students, both men and women, 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 for women and one for men. The Association conducts the religious services of the Uni-

versity, arranges for outside speakers on religious and social subjects, carries on Bible classes and discussions of various practical problems, sends out religious deputations, brings comfort to the sick, and in general seeks to meet the spiritual needs of the students. The general secretary also acts as representative of several coöperating denominations. The work is centered in the Maine Christian Association Building, which also serves as a union building for student activities. On the second floor is a room for meditation and prayer, open all day for any who wish to come.

Church Services.—Students receive a cordial welcome at the services of the churches of Orono—the Methodist Episcopal Church, St. John's Universalist Church, St. Mary's Roman Catholic Church, and the undenominational Fellowship Church. Other denominations are represented at Old Town and Bangor.

National Honor and Professional Societies

Phi Kappa Phi.—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 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-seven 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.

Kappa Delta Pi.—The Maine chapter of Kappa Delta Pi, a national honor society in education, was established in 1932. Membership is open to students in the School of Education who attain a required rank in scholarship. The purpose of the society is to foster scholarship and high standards of preparation for those students who plan to enter teaching as a life career.

Phi Beta Kappa.—A chapter of Phi Beta Kappa, the oldest national honorary scholarship society, was granted to the College of Arts and Sciences of the University in 1922. Its object is to promote scholarship in the liberal arts. 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.—A professional fraternity made up of majors in the Department of Chemistry and Chemical Engineering. Two meetings are held monthly.

American Chemical Society.—Orono is headquarters for the Maine section. Students of chemistry and chemical engineering may become student members. Meetings, held monthly, are open to those interested.

Student Branch of the American Society of Civil Engineers.—Composed of juniors and seniors enrolled for the curriculum in Civil Engineering. The object of the society is to investigate by reading and discussion engineering topics of the day. Monthly lectures are given by teachers of engineering and practicing engineers.

Branch of the American Institute of Electrical Engineers.—Composed of members of the teaching staff, graduate students, seniors, juniors, and sophomores of the Department of Electrical Engineering. Its aim is to promote interest in electrical engineering and to foster acquaintance and good fellowship among faculty and students. Talks and lectures are given by members of the branch and practicing engineers.

American Society of Mechanical Engineers.—The members of the A.S.M.E. Branch at the University include accepted student grade members of A.S.M.E. Regular meetings of the local branch are held for presentation of papers by members and outside speakers, and one delegate is sent yearly to the regional conference of student branches.

University of Maine Branch of the American Home Economics Association.—Composed of members of the staff, and students from the three upper classes in home economics. The object of the society is to stimulate professional interest, and keep in touch with current problems. Election is on the basis of scholarship in home economics courses.

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 whose membership is restricted to men who intend to make teaching their profession and who have a high scholastic record.

Omicron Nu.—A national honor society for students in curricula leading to a degree in home economics. The chapter at the University was established in 1931. Membership is restricted to juniors, seniors, and graduate students who give promise of future achievement by having maintained high scholarship throughout their college careers.

Phi Sigma.—A national honor society for students in biology who have completed a certain number of courses with honor grade.

Scabbard and Blade.—An honorary military fraternity with active membership restricted to cadet officers of high moral and scholastic standing. Commissioned officers of the United States Army and non-military persons deemed worthy of the honor may be elected as honorary members. The local company was organized in 1916.

Xi Sigma Pi.—A national honorary forestry fraternity open to upper-class students in forestry who possess the proper qualifications. The local chapter was organized in 1917.

Departmental Clubs

Agricultural Club.—An organization composed of students of agriculture. At the bimonthly meetings important agricultural topics are discussed by club members and also by prominent outside speakers.

Cercle Français.—The object of the Cercle Français is to stimulate interest in the language and culture of France. Membership is open to all students of French. The meetings, which occur monthly, offer varied programs of talks in French, music, games, etc. Active participation in the work of the Cercle Français will be taken into consideration in the election of members to the French honorary society, Beta Pi Theta.

Circulo Español.—An organization established in 1921 to promote a knowledge of the culture of Spain and the Spanish-American nations and to encourage good fellowship among students of Spanish. Occasionally a Spanish Night program is presented for the general public.

College 4-H Club.—An organization 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 for its object the cultivation of the literary talents of its members and the general encouragement of literary interest in the University. It occasionally brings to the campus distinguished writers and speakers for literary lectures.

Delta Pi Kappa.—A musical fraternity which was founded at the University of Maine in 1929. The purpose of this fraternity is to promote the best interest of college musicians and to encourage a high type of musicianship.

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.

Forestry Club.—This organization, which is open to all majors in forestry, affords the opportunity for presenting informal discussions and technical papers on forestry subjects and aims to promote coöperation and good fellowship among students in the department. Meetings are held monthly.

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

The Language Conference.—An organization of faculty and graduate students interested in ancient or modern languages and literatures. At the meetings, papers on research problems or other topics of general interest are read and discussed.

Maine Masque.—A dramatic club which aims to make a practical study of the acted drama, and to present each year several plays before the public. The Masque considers for active and associate membership all students who have participated in one or more plays, or who have helped in the stage production of these plays.

Physics Club.—Open to members of the faculty and students who are taking courses in physics or allied subjects. Meetings are held every two weeks at which papers are presented and current topics are discussed.

Sigma Delta Zeta.—Open to all students majoring in mathematics and other students interested in the study of the subject who have attained a certain required proficiency in mathematics and in general college work. The purpose of this club is to stimulate interest in the study of mathematics and to give mathematics students the opportunity to present papers and take part in discussion.

Sigma Mu Sigma.—The local honorary psychological fraternity holds its meetings twice monthly. Its purpose is the furtherance of interest in the theories and practical application of psychology. Members are chosen principally from those majoring and minoring in psychology whose records indicate an interest in this science.

Sodalitas Latina.—Students who elect Latin a second year are eligible to membership. The club holds meetings once a month for lectures, informal entertainments, or social gatherings.

Musical Organizations

University Band.—This organization is attached to the Military Department. Rehearsals are credited as regular class work under the director of music. A particular aim is to develop leadership, and to this end, in coördination with the course in interpretation and conducting in the Music

Department, students properly qualifying are coached to conduct the concert presentations of the band. The band plays for various university functions and games and makes concert trips.

University Chorus.—This organization, open to both men and women students, has for its objective 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 sharing in programs at the Festival 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).

University Orchestra.—This organization, recruited from the outstanding student talent, devotes weekly rehearsals to the study of standard and symphonic music. Its repertoire is presented at the university dramatic performances and in concerts on and off the campus. It accompanies the University Chorus and soloists in the annual Music Night program.

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); Tau Epsilon Phi, (1929). 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 Tau (1927).

Student Publications

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

The Maine Review.—A quarterly magazine under student management, designed to express the various intellectual interests of the University.

Prism.—The Prism is an illustrated annual published by the junior class.

DEBATING

Men's Debating

The Debating Society is open to all students interested in forensic work. Questions of public interest are discussed. The members make a special study of the questions used for inter-collegiate debating. From this group representatives are chosen to speak before luncheon clubs, grange meetings, community gatherings, and to participate in the intercollegiate debates.

The University of New Hampshire, Bates College, Rhode Island State College, New York University, the University of Vermont, Boston University, Massachusetts State College, and Colby College are among the institutions usually scheduled for these debates, which are frequently of a dual nature. Members of this society are selected to represent the University on a debating tour of Eastern institutions.

Women's Debating

The Debating Society is open to undergraduate women of high scholastic rank, who are interested in studying the art of debate. The two outstanding members of the group are selected each year to make a tour of Eastern colleges. Last year the trip included debates with Rhode Island State College, Emerson College, Columbia University, Bates College, Pembroke College at Brown University, and Colby College.

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.

These blanks should be returned promptly together with the application fee of $10 and room deposit of $15 if a dormitory room is desired).

In order that all candidates may receive equal consideration, it is desired that applications be filed as early as May first of the year the candidate wishes to enter. Candidates 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.

The University admits men and women, both residents of Maine and non-residents; it reserves the right to terminate admissions whenever the capacity of the University to care properly for the students has been reached.

It is requested that all entering students submit a certificate 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.

Admission to Advanced Standing.—A student desiring to transfer to the University of Maine from another college of recognized standing must present the following credentials:

A statement of his entrance record.

A statement showing a complete record of his work while in attendance including faculty action, if any.

A letter of honorable dismissal.

These credentials must be sent directly from the Registrar's office and should be addressed to the Registrar of the University of Maine.

Applicants should notify the Registrar whether they desire admission to the College of Agriculture, the College of Arts and Sciences, the School of Education, or the College of Technology. A college catalog should be mailed unless the Registrar knows that the University of Maine is on the permanent mailing list.

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 high-school work.

Admission of Graduates from Class A Schools in Maine

Graduates from Maine high schools and academies, placed by the State Department of Education in Class A, may be admitted upon their school 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 admitted 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. So far as possible, a personal interview will be held with each candidate. The information gained from the interview 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. In doubtful cases candidates may be required to pass, before the opening of the fall semester, certain examinations, the choice depending upon the course of study that the candidate wishes to undertake. Each such candidate will be definitely informed regarding the tests required.

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 he 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. 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 before the fall registration of freshmen. A schedule of the examinations will be furnished on request. Candidates for admission who wish to be examined in the spring can take the examinations at their own school, provided the principal is willing to arrange for giving the tests. These exaxminations are given during the fourth week in May. On request of any principal the University will send the necessary examination papers. Such requests should be received before May 15. 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 19-24, 1933. 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	3	units
Foreign languages (four years in one or two in each of two)	4	"
History	1	"
Mathematics (Algebra and Plane Geometry)	2	"
Total	10	units

College of Agriculture

English	3	units
*Algebra	1	"
*Plane Geometry	1	"
Science (including laboratory notebook)	1	"
History	1	"
Total	7	units

College of Technology

English	3	units
Foreign language (two years in one)	2	"
Algebra	2	"
Plane Geometry	1	"
History	1	"
Science	1	"
Total	10	units

*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.

Subjects	Units Accepted		Units required and units accepted in the several colleges					
			Arts and Sciences		Agriculture		Technology	
	Min.	Max.	Req.	Acc.	Req.	Acc.	Req.	Acc.
English	3	3	3	3	3	3	3	3
French	*2	4	Four units in one language or two in each of two	2, 3, or 4		1, 2, 3, or 4	Two units in one language††	1, 2, 3, or 4
German	2	4		2, 3, or 4		1, 2, 3, or 4		1, 2, 3, or 4
Greek	2	3		2 or 3		1, 2, or 3,		1, 2, or 3,
Latin	2	4		2, 3, or 4		1, 2, 3, or 4		1, 2, 3, or 4
Spanish	2	3		2 or 3		1, 2, or 3,		1, 2, or 3,
Algebra (Elem.)	1	**2	1	2	§1	2	2	2
Plane geometry	1	1	1	1	§1	1	1	1
Solid geometry	½	½		½		½		½
Trigonometry	½	½		½		½		½
Algebra (Adv.)	½	½		½		½		½
History	1	4	1	1, 2, 3, or 4,	1	1, 2, 3, or 4	1	1, 2, 3, or 4
Civics	½	1		½ or 1		½ or 1		½ or 1
Economics	½	1		½ or 1		½ or 1		½ or 1
Biology	†1	1		1	One unit in Science	1	One unit in Science	1
Botany	†1	1		1		1		1
Chemistry	†1	2		1 or 2		1 or 2		1 or 2
Physics	†1	2		1 or 2		1 or 2		1 or 2
Physiography	½	1		½ or 1		½ or 1		½ or 1
Physiology	½	1		½ or 1		½ or 1		½ or 1
Zoology	†1	1		1		1		1
General Science	½	1		½ or 1		½ or 1		½ or 1
Agriculture	1	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
Domestic Science and Art	1	4						
Drawing	†½	2						
Manual Training	†½	2						
Commercial Subjects	½	4						
Music	½	1		½ or 1		½ or 1		½ or 1
Bible Study	½	1		½ or 1		½ or 1		½ or 1
Debating	½	1		½ or 1		½ 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 52.

††Latin or French preferred.

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 preceding table. Subjects not listed may be accepted among the electives, provided they represent a satisfactory equivalent for any of those listed.

REQUIREMENTS IN DETAIL

English

The entrance examination in English presupposes a study of English literature and of composition and rhetoric pursued throughout 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.

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 thorough 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 Vergil 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 sen-

tences, 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.

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 Bédollière, *la Mère 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;* Legouvé et Labiche, *la Cigale chez les fourmis;* Malot, *Sans famille;* Mairet, *la Tâche du petit Pierre;* Mérimée, *Colomba;* extracts from Michelet; Sarcey, *le Siège 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 thorough 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 and Sandeau, *le Gendre de M. Poirier;* Béranger, poems; Corneille, *le Cid* and *Horace;* Coppée, poems; Daudet, *la Belle Nivernaise;* La Brète, *Mon oncle et mon curé;* Madame de Sévigné, letters; Victor Hugo, *Hernani* and *la Chute;* Labiche, plays; Loti, *Pêcheur d'Islande;* Mignet, historical writings; Racine, *Andromaque* and *Esther;* George Sand, novels; Sandeau, *Mademoiselle de la Seiglière;* Scribe,

plays; Thierry, *Récits;* 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 Séville;* Corneille, dramas; Dumas père, prose writings; Dumas fils, *la Question d'argent;* Victor Hugo, *Ruy Blas,* lyrics, and novels; La Fontaine, *Fables;* Lamartine, *Graziella;* Marivaux, plays; Molière, plays; Musset, plays and poems; Pellissier, *le Mouvement littéraire au XIX siècle;* 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.

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

One unit is required by all colleges of the university for entrance. Four may be offered.

The admission requirements in history are based on the recommendations of the Committee of Seven. The student will be expected to show 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 and Roman History.—One unit.

Greek History.—To the death of Alexander with due consideration of Greek life, literature, and art. One-half unit.

Roman History.—To 800 A.D. with emphasis on government and institutions. One-half unit.

II 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. One unit.

III American History.—Including civics and with especial attention to social and economic life. One unit.

IV Medieval and Modern History.—One unit.

Medieval History.—To 1500. One-half unit.

Modern European History.—From 1500 to the present. One-half unit.

V General History.—Beginning with ancient civilization and coming down to the present time. One unit.

Mathematics

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 obtained 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 contained in good textbooks, 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 contained in 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 and the difference of two sines and of two cosines; 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 their application to the solution of linear

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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.

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.

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 notebook 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, Henderson and Fowler's *Chemistry for Today;* Newall; and Black and Conant. Records of laboratory work should be kept in permanent notebook form.

The work in chemistry should include at least ninety hours of classroom 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 notebooks of students seeking entrance credit in chemistry must be certified by the instructor and presented as evidence, when called for, by the Department of Chemistry and Chemical Engineering. Candidates who make good records in the placement test in chemistry and present satisfactory notebooks will be assigned to the advanced groups in General Chemistry, or to groups of students of similar previous training and mental qualifications for recitations.

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

Physics.—The necessary preparation is covered in one year in a good fitting school. This covers the fundamental facts in mechanics, heat, light, sound, electricity and magnetism. A two hour laboratory period per week

should be a part of the course. Approximately forty exercises should be covered in the laboratory. It is expected that the principal submitting a credit in physics vouches for a satisfactory notebook.

Biblical Literature

To obtain credit of a unit in this subject a student must follow a course of study which shall be equivalent to five hours a week throughout a year, and pass an examination which is set by the State Committee on Credits for Religious Education or give satisfactory evidence of the completion of an equivalent course and examination.

REGISTRATION

FRESHMEN.—All members of the incoming freshman class are REQUIRED to be in residence on the campus during the period known as Freshman Week. The dates are announced in the calendar in the front of the catalog. Following the general plan employed for the past nine 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 ILLNESS CERTIFIED TO BY A PHYSICIAN IN GOOD STANDING WILL BE ACCEPTED.

UPPERCLASSMEN: In the fall semester of 1933, upperclassmen will be required to register on September 19, or to present written evidence that they have been excused from so registering by the University authorities. In other words, upperclassmen must before September 19 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. In the event of an unusual circumstance wholly beyond the control of the student, and occurring just prior to the opening of the fall semester, the student may present his case in person to the dean upon his arrival at the University. Late registration is a handicap both to students and to University authorities, and will be rigidly discouraged whenever and wherever possible.

STUDENT EXPENSES

A partial list of necessary expenses is indicated below. It includes only items which are fairly uniform for all students. The estimates are prepared upon the basis of students living in University halls.

	Students from within the State			Students from without the State		
Tuition	$150.00			$250.00		
Textbooks	25.00	to	50.00	25.00	to	50.00
Board 34 weeks @ $5.50	187.00			187.00		
Room in Dormitory	85.00			85.00		
Special Assessment for Athletics & Debating	10.50			10.50		
Health Service Fee	2.00			2.00		
	$459.50	to	$484.50	$559.50	to	$584.50

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.

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 1, $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.

Rooms

The rooms in Mt. Vernon House, accommodating two students each, and the rooms in the Maples, accommodating one, two, or three students are freshman dormitories for women.

The rooms in Balentine Hall, accommodating two students each and those in Colvin Hall, accommodating four students each are available to all women students.

The rooms in Oak Hall and the middle section of Hannibal Hamlin Hall accommodate two students each; the north and south sections of Hannibal Hamlin Hall accommodate four students each. Oak Hall and Hannibal Hamlin Hall are freshmen dormitories for men.

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	$ 75.00	$125.00
Board and Room	136.00	136.00
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)	9.50	9.50
	$261.75	$311.75

For students who do not room and board in University halls the above amounts are reduced by $166.50.

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 over $2400, 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 first earnings after graduation. Individual loans are limited to $50.

Boston Alumnae Fund.—This is a fund now amounting to about $500, 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.—This fund, the gift of the Maine *Campus,* amounting to $320 is loaned to juniors and seniors whose conduct and scholarship are satisfactory, preference being given to those interested in the literary activities of the University. Amount loaned is limited to $50 per person with interest at four per cent while in college and six per cent thereafter. Loans must have the endorsement of a satisfactory second party. Fund is in control of the Treasurer of the University, and the custodian, editor-in-chief and business manager of the *Campus.* Payment is to be made from first earnings after graduation or withdrawal from college.

Class of 1926 Loan Fund for Seniors.—This fund, the gift of the class of 1926, amounting to over $1100 is loaned to seniors of good scholastic standing during the last semester of their senior year. Amount loaned is $50 per person, exceptional cases to be allowed $100. Payment of such loan is to be made before March 1 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 thoroughly satisfactory in regard to character, scholarship, and general ability, and to be in genuine need. The fund amounts at present to $1300; and loans to one student shall not exceed $200 a 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 over $3500 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 coöperation 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 who have attained 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.

Carleton Orchard Fund.—This fund originated in the gift to the State of Maine by James A. Gregory of one interesting-bearing first mortgage bond for $1000, the interest on which was to be used for the promotion of scientific orcharding in Maine. At first administered by the Maine Department of Agriculture, the income from this bond was transferred in 1925 to the College of Agriculture of the University "for the assistance of needy students who shall be residents of the State of Maine, majoring in horticulture at the said college of agriculture." Loans are made at the discretion of a committee consisting of the head of the Department of Horticulture, the Dean of the College of Agriculture, and the Treasurer of the University. They bear interest at the current rate from the date of issue until repaid.

The Bangor Business and Professional Women's Loan Fund.—This fund now amounting to $200.00 was established by the Business and Professional Women's Club of Bangor, Maine, for needy and deserving women students, preferably from Bangor and vicinity, who have been in attendance at least two years and who have maintained an average grade of "C" or better. Loans shall not exceed $250.00 per student and the recipient shall sign a promissory note to begin payments on the loan within four months after leaving the university at the rate of not less than $10.00 per month, with interest at the current rate from the date of the loan. The recommendation to the President for loans shall be made upon the recommendation of the Registrar, the Dean of Women, and the Chairman of the Education Committee of the Bangor Business and Professional Women's Club.

SCHOLARSHIPS AND PRIZES

Applications for scholarships, unless otherwise indicated, should be sent to the Chairman of the Committee on Honors before April 15. Application blanks may be obtained from the Chairman of the Committee on Honors or from the Registrar's office.

Trustee Scholarships.—Five undergraduate scholarships of the value of a year's tuition are awarded annually by authorization of the Board of Trustees, primarily on a basis of scholarship standing. One scholarship at large is offered to a student of distinguished record in any college or school of the University, without restriction as to residence. Of the other four, for residents of Maine only, one is offered in each of the three colleges and one in the School of Education.

Secondary School Contest Scholarships.—Eight tuition scholarships have been established by the Board of Trustees, to be awarded each year to freshmen entering the University from Maine secondary schools. These scholarships are awarded, one in each of eight districts of the State, to the secondary school senior making the highest rank in his district in the Senior Scholarship Contest sponsored by the School of Education. This contest is held in May, and the scholarships are available the following September. The highest ranking senior of the eight selected is awarded a tuition scholarship for four years, the second highest for three years, the third highest for two years, and the remaining five for one year each. Each scholarship is issued for one semester and will be renewed upon evidence of satisfactory work in the University.

Hovey Memorial Scholarship.—The Stone and Webster Corporation in 1931 permanently allocated to the University of Maine the Hovey Memorial Fund of $6000, established in 1932 in honor of the late Francis S. Hovey. The income from this fund makes available annually two or three scholarships of approximately $150 for students in the College of Technology, on the basis of scholastic attainment, character, and general promise. A scholastic standing of at least 3.00 must be attained to be eligible, and must be maintained during tenure. Award is made by the Dean and the heads of departments in the College, subject to the approval of the President. Preference is given to students residing in the State of Maine, if there are suitable candidates in this group.

Charles H. Hood Fund Scholarships.—Seven scholarships of $200.00 each are available annually to men and women students of the College of Agriculture whose intention is to promote farming as a life opportunity. They are awarded by a committee comprising the Dean of the College of Agriculture as chairman, the head of the Department of Animal Industry, and

the Treasurer of the University, and are distributed as follows: two sophomore and two junior scholarships are granted to students whose scholastic standing for the previous year places them in the upper half of their class; and three senior scholarships are granted to students whose scholastic standing for the previous year places them in the upper third of the class. The junior and senior scholarships are further restricted to students specializing in some phase of dairy industry promotion.

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.

Women's Student Government Association Scholarships.—Two scholarships of fifty dollars each are awarded annually by the Women's Student Government Association to deserving women students who are in need of financial assistance and whose conduct and scholarship record are satisfactory. Applications must be submitted to the president of the Student Council by April 1. Award is made by the Committee on Honors on recommendation of the Dean of Women and the Student Council.

New York Alumni Association Scholarships.—Two scholarships of fifty dollars each are annually offered by the New York Alumni Association for the encouragement of proficiency in written and oral expression.

Scholarship No. 1 is offered for excellence in debating by the Faculty Committee on Honors, on recommendation of the Department of Public Speaking. In case the effort in debating does not justify the award in any year or years, the amount shall be accumulative.

Scholarship No. 2 is offered annually to a junior in the College of Technology, to encourage advancement and proficiency in English, particularly in correct, clear, direct, and efficient writing as equipment for later professional, commercial, and civil life. The candidates shall assemble on an announced date, and each shall write 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, based upon the quality of the essay and the advancement which is indicated by the student's grade in courses in English, shall be made by three judges, of whom one shall represent the College of Technology and the other two shall be selected by the Department of English.

The Kidder Scholarship.—A scholarship of thirty dollars was endowed

by Frank E. Kidder, Ph.D., of Denver, Colorado, a graduate of the University in the class of 1879. This scholarship is awarded by the Committee on Honors, with the approval of the President, to a student whose rank excels in his junior year.

THE PHI MU SCHOLARSHIP.—A scholarship of thirty dollars is offered each year by the Phi Mu Sorority to a woman student whose scholarship and conduct are deserving and who is in need of financial assistance. The award is made by the Committee on Honors on recommendation of the President of the University and the president of the sorority.

THE PITTSBURGH ALUMNI ASSOCIATION SCHOLARSHIP.—A scholarship of thirty dollars is awarded annually by the Pittsburgh Alumni Association to a member of the junior class in the College of Technology whose ability and needs justify the award. The selection is made by the President and the Dean and professors of the College of Technology.

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, is offered annually as a scholarship in honor of their parents. The following order of preference is considered in awarding this scholarship; (a) To any direct descendant of Joseph Rider and Ellen Holyoke Farrington, or anyone whom three of such descendants may select; (b) To any student bearing the surname of 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 the year of award and who shall make application for the scholarship.

THE STANLEY PLUMMER SCHOLARSHIP.—The income of $1000, the bequest of Colonel Stanley Plummer of Dexter, Maine, is awarded annually to a needy and deserving student selected by the Committee on Honors. Students born in Dexter, Maine, shall have the preference; but if there are none such, any needy and deserving student may be selected.

THE ELIZABETH ABBOTT BALENTINE SCHOLARSHIP.—A scholarship of the value of one semester's tuition was endowed by the Gamma Chapter of Alpha Omicron Pi, to be awarded to a woman member of the sophomore class to be selected by the Committee on Honors on recommendation of the chapter with the approval of the President. Both scholarship and individual need are to be considered in the award.

THE CLASS OF 1905 SCHOLARSHIP.—The income of a one thousand dollar donation by members of the class of 1905 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 Phi Sigma Scholarship.—A scholarship of thirty dollars is offered annually by the Phi Sigma Fraternity to a sophomore student on the basis of proficiency, interest, and general promise in biology and of general need. The award shall go toward payment of tuition and shall be made by the Phi Sigma Executive Committee in conference with the faculty of the Departments of Botany and Zoology.

The Central District Alumni Association Scholarship.—A scholarship of thirty dollars, the gift of the Central District Alumni Association, is awarded annually to a sophomore pursuing a regular curriculum whose deportment is satisfactory and who has attained the highest rank in the class during the freshman year.

Scholarships available for graduate students are described in the section of the catalog devoted to graduate study.

The Chi Omega Sociology Prize.—In accordance with its national policy, the Chi Omega Sorority offers annually a twenty-five dollar prize to the woman student in the sophomore or junior class 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.

Prize of the Class of 1873.—The income of $1000 ($42.50), the gift of Russell W. Eaton of Brunswick, a member of the class of 1873, is 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 Alpha Omicron Pi Alumnae Prize.—A prize of ten dollars, given by the Bangor Alumnae Chapter of Alpha Omicron Pi, is awarded annually to the 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, shall furnish the basis of award.

Sigma Mu Sigma Award.—An award of twenty-five dollars is made annually by the honorary society Sigma Mu Sigma to a member of the current sophomore class who shall have completed a semester and a half of the introductory course in General Psychology, on a basis of proficiency, interest, and general promise in the subject. Nominations for the award shall be made to the president of the society by the instructors in the course when the spring midsemester grades are reported to the Registrar.

The Track Club Award.—An award of fifty dollars is given each year by the Track Club to some member of the freshman class who needs help. He must have shown promise in track athletics in his freshman year and have maintained a satisfactory scholarship standing. The award shall 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 in his sophomore year. Applications must be made in writing and sent to either the coach of track athletics or the president of the Track Club before May 1.

The Deutscher Verein Prize.—A prize of ten dollars is awarded for the best work in a competitive examination of students in Elementary German, conducted by the Department of German.

The Henry L. Griffin Prize in English Composition.—A prize 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. The chief basis of the award is a competition in writing held during the month of April.

Franklin Danforth Prize.—A prize of fifteen 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 the College of Agriculture who attains the highest standing throughout his curriculum.

Greek Culture Prize.—A prize of fifteen dollars, the gift of the Hon. Edward F. Danforth of Skowhegan, is 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 award is made on recommendation of the Department of Greek Language and Literature.

The Spanish Club Prize.—A prize of ten dollars is awarded annually by the Círculo Español for excellence in Elementary Spanish to a student of the freshman class, on the basis of a competitive examination.

The Kappa Psi Music Prize.—A prize of ten dollars is awarded each year by the Kappa Psi Sorority to a student in music. The award is determined by a committee consisting of the head of the Department of Music, a member of the Committee on Honors, and a member of the Kappa Psi Sorority.

The Class of 1908 Commencement Cup.—A cup, donated by the class of 1908 alumni, is awarded to that graduate class, the largest percentage of whose members register during Commencement week.

The Fraternity Scholarship Cup.—The 1910 Senior Skulls Society presented to the University a cup to be awarded in turn at each Commencement to that fraternity having the highest standard in scholarship for the preceding calendar year. The cup was to become the permanent property of the fraternity to which it should be awarded the greatest number of times through an eleven-year period. The award was renewed in 1921 for an eleven-year period by the 1921 Skulls, and in 1932 by the 1932 Skulls. The first cup was awarded in 1921 to Phi Eta Kappa and the second in 1932 to Lambda Chi Alpha.

The Pan-Hellenic Sorority Cup.—A scholarship cup is annually awarded by the Pan-Hellenic Council to the sorority having the highest scholarship standing, on terms similar to those of the Fraternity Scholarship Cup.

Freshman Scholarship Cup.—A cup is awarded by the University each spring to that secondary school in Maine having three or more of its graduates in full standing in the freshman class, whose freshman representatives as a group shall have attained the highest scholastic standing for the fall semester preceding. The first award was made in 1931, to Fort Kent High School.

The Washington Alumni Association Watch.—The Alumni Association of Washington, D. C. presents annually a watch to the male member of the graduating class who, in the opinion of the students and the University administration, has done the most for the University during his curriculum. This award is made as the result of a secret ballot by the students, passed upon by the President and the Administrative Committee.

The Victoria Weeks Hacker Watch.—The Portland Club of University of Maine Women presents annually a watch to the woman member of the graduating class who, in the opinion of the students and the University administration, has done the most for the University during her curriculum. This award is made as the result of a secret ballot by the students, passed upon by the President and the Administrative Committee.

Agricultural Club Membership Cup.—A cup furnished by the Agricultural Club is engraved each year with the numerals of that undergraduate class which can show the best record of membership in the club.

The Charles Rice Cup.—The Kappa Sigma Fraternity presented in 1921 a cup in honor of the late Charles Anthony Rice, who was killed in service, to be held for one year by the team winning the intramural track championship.

The Intramural Cup.—The Intramural Athletic Association has donated to the University a cup to be held for one year by the fraternity whose non-letter men score the largest number of points in the intramural track championship.

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 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 the School of Education, 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 fourteen hours and nineteen 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 work of four years in the Colleges of Agriculture or Technology according to the requirements prescribed by those Colleges and the University.

The degree of Bachelor of Arts in Education (B.A. in Ed.), or Bachelor of Science in Education (B.S. in Ed.) is conferred upon students who complete the prescribed work in the School of Education.

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. No student will be recommended for a degree who, having been reported to the Committee on Students' Use of English of his college, shall have failed to satisfy the requirements of the committee.

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.

DEGREES WITH DISTINCTION

Degrees with distinction are conferred at Commencement for the following attainments in rank:

Seniors in the Colleges of Agriculture and Technology having an average grade of 3.50 or above are graduated with highest distinction, 3.25 to 3.49 with high distinction, and 3.00 to 3.24 with distinction.

Seniors in the College of Arts and Sciences and the School of Education having an average grade of 3.75 or above are graduated with highest distinction, 3.50 to 3.74 with high distinction, and 3.25 to 3.49 with distinction.

The average grade is based on the work of the first three and one-half years. Candidates in the Colleges of Agriculture, Arts and Sciences, and Technology must have completed seven-eighths and in the School of Education, three-quarters of the required hours at the end of the fall semester of the senior year.

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 x 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."

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, The School of Education, 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 and the Faculty of the Summer Session.

College of Agriculture

Curricula in Agricultural Economics and Farm Management, Agricultural Education, Agronomy and Agricultural Engineering, Animal Husbandry, Bacteriology, Biological and Agricultural Chemistry, Botany, Dairy Husbandry, Dairy Technology, Entomology, Forestry, Home Economics, Horticulture, and Poultry Husbandry.

Two-year Course in Agriculture.

Farm and Home Week.

Extension Lecture Courses.

College of Arts and Sciences

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

School of Education

Professional training is offered for superintendents, supervisors and principals, and teachers of academic subjects in the secondary schools. The degrees of Master of Arts in Education and Master of Science in Education are offered.

College of Technology

Curricula in Chemical Engineering, Chemistry, Civil Engineering, Electrical Engineering, General 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.

Summer Session

A summer session of six weeks is maintained by the University. Work is offered at present in seventeen departments. A station for work in Zoology is maintained at Lamoine.

College of Agriculture

FACULTY OF INSTRUCTION

Leon Stephen Merrill, M.D., Sc.D., *Dean*
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, Ph.D., *Professor of Horticulture*
Pearl Stuart Greene, M.A., *Professor of Home Economics*
Ferdinand Henry Steinmetz, Ph.D., *Professor of Botany and Entomology*
Maurice Daniel Jones, M.S., *Professor of Agricultural Economics and Farm Management*
Elmer Reeve Hitchner, Ph.D., *Professor of Bacteriology*
Llewellyn Morse Dorsey, M.S., *Professor of Dairy Husbandry*
†Harry Woodbury Smith, M.S., *Professor of Biological and Agricultural Chemistry*
Marion Deyoe Sweetman, Ph.D., *Professor of Home Economics*
John Robert Smyth, M.S., *Associate Professor of Poultry Husbandry*
Chauncey Wallace Lord Chapman, M.S., *Assistant Professor of Forestry*
Leigh Philbrook Gardner, M.S., *Assistant Professor of Poultry Husbandry*
Harold Clayton Swift, M.S., *Assistant Professor of Agronomy*
Charles Orville Dirks, M.S., *Assistant Professor of Entomology*
Werner Thadeus Snyder, M.S., *Assistant Professor of Agronomy*
George Peter Steinbauer, Ph.D., *Assistant Professor of Botany*
Marguerite Ruth Musgrave, M.A., *Assistant Professor of Home Economics*
Monroe Edward Freeman, Ph.D., *Assistant Professor of Biological and Agricultural Chemistry*
Robert Irving Ashman, M.F., *Assistant Professor of Forestry*
Howe Wiggin Hall, M.S., *Assistant Professor of Animal Industry*
Fay Hyland, M.S., *Assistant Professor of Botany*

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†On leave of absence, 1932-33.

HELENE HEYE, M.S., *Assistant Professor of Home Economics*
JOHN FRANKLIN WITTER, D.V.M., *Assistant Professor of Animal Pathology*
BEULAH ELIZABETH OSGOOD, M.A., *Instructor in Home Economics*
GLADYS MARIE GOULD, B.S., *Part-Time Instructor in Home Economics in Charge of Student Teaching*
ROGER CLAPP, M.S., *Instructor in Horticulture*
RICHARD MCVAY RILEY, M.S., *Instructor in Horticulture*
MABEL LANCASTER STEWART, B.S., *Instructor in Home Economics*
MERTON STANLEY PARSONS, M.S., *Instructor in Agricultural Economics and Farm Management*
LINWOOD JULES BOWEN, B.S., *Instructor in Biological and Agricultural Chemistry*
FRED EUGENE BLANCHARD, B.S., *Graduate Fellow in Dairy Husbandry*
KEITH H. LEWIS, B.S., *Graduate Fellow in Bacteriology*
EUGENE CECIL OGDEN, B.S., *Graduate Fellow in Botany and Entomology*

GENERAL INFORMATION

The College of Agriculture comprises the departments of Agricultural Economics and Farm Management, Agricultural Education, Agronomy, Animal Industry, Bacteriology, Biological and Agricultural Chemistry, Botany and Entomology, Forestry, Home Economics, Horticulture, and Extension Service. This college offers to young men and women an opportunity to secure a broad education and thorough training in the sciences and technics relating to the major course of study they may elect to pursue. It aims to prepare them for lives 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 requires the completion of 147 credit hours with the exception of that of Home Economics which comprises 128. In addition each student must accumulate a total of grade points equal to the number of hours required for graduation in the curriculum chosen. These grade points are computed by multiplying each hour of the letter grade by a factor as follows: A by 3, B by 2, C by 1, and D by 0. Upon the completion of the required curriculum, with the necessary number of grade points, the student will be recommended for the degree of Bachelor of Science (B.S.).

On entering either a four-year curriculum in agriculture or the two-year 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 majoring in Botany, Bacteriology, Biological and Agricultural Chemistry, Entomology, 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 botanical or entomological aspects of Forestry may offer freshman and sophomore years in Forestry as equivalent to the first two years' work in Agriculture and register in the curriculum in Botany or Entomology during the junior or 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 a credit of one hour; a dagger (†) indicates that two hours of actual work are required to obtain a credit of one hour.

REGULAR CURRICULA AND COURSES OF INSTRUCTION

The courses of instruction are organized as follows:

1. Four-year major Agriculture curricula:
   Agricultural Economics and Farm Management, Agricultural Education, Agronomy and Agricultural Engineering, Animal Husbandry, Bacteriology, Biological and Agricultural Chemistry, Botany, Dairy Husbandry, Dairy Technology, Entomology, Horticulture, and Poultry Husbandry.
2. Four-year Forestry curriculum
3. Four-year Home Economics curriculum:
   Vocational Sequences
   1. Home Economics Education
   2. Extension-Home Demonstration or 4-H Club work
   3. Foods and Nutrition
   4. Textiles and Clothing

5. Child Development and Training
6. Special Sequences: Home Economics Journalism, Household Equipment, Social Service, and others formulated to fit individual cases

4. The Two-Year Course in Agriculture
5. Farm and Home Week
6. Extension Lecture Courses

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 agricultural economics and farm management, agronomy and agricultural engineering, animal husbandry, bacteriology, biological and agricultural chemistry, botany, dairy husbandry, dairy technology, entomology, horticulture, and poultry husbandry; 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 year, during which the student is necessarily given no choice of subjects. Beginning with the sophomore year each student should start specialization in one of the following major curricula: Agricultural Economics and Farm Management, Agricultural Education, Agronomy and Agricultural Engineering, Animal Husbandry, Bacteriology, Biological and Agricultural Chemistry, Botany, Dairy Husbandry, Dairy Technology, Entomology, Horticulture, or Poultry Husbandry; and at the beginning of the junior year he must establish a definite major course of study to be followed until the requirements for graduation shall have been satisfied.

It should be noted that each major curriculum allows a student a number of elective hours. The 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. In the case of those students majoring

in Agricultural Economics opportunity is offered in the way of elective hours to obtain training in such of the agricultural production subjects as may be desired to furnish a basic production background.

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.

Curriculum for the Freshman Year for All Students Taking Four-Year Curricula in Agriculture

Fall Semester

No.	Subject	Cr. Hours
Ag 11	Field Crops, 2 †2	3
Ch 5	Inorganic Chemistry, 2 †4	4
Eh 1	Exposition	3
Mt 1	Military, †3	1½
Ph 1	Types, Breeds, Mgt. of Poultry, 2 †2	3
Zo 1	General Zoology, 2 †4	4
Pt 1	Physical Education, 2	0
		18½

Spring Semester

No.	Subject	Cr. Hours
An 2	Types, Breeds, Farm Animals, 2 †2	3
Bt 2	General Botany, 2 †4	4
Ch 6	Inorganic Chemistry, 2 †4	4
Eh 2a	Exposition	3
Ht 2	Tree Fruit Production, 2 †2	3
Mt 2	Military, †3	1½
Pt 2	Physical Education, 2	0
		18½

Curriculum for Students Specializing in Agricultural Economics and Farm Management

The curriculum in Agricultural Economics and Farm Management is planned to give the student a broad, comprehensive training in the economic principles of the production and marketing of agricultural products. The training in crops and livestock production, provided in this curriculum, is essential for a clear and proper understanding of the application of the principles of agricultural economics. The student may choose from the elective hours a sufficient amount of work in another department to prepare himself for a position in Agricultural Economics and Farm Management dealing with a particular group of agricultural products. The student upon completing this curriculum of study may engage in some phase of one of the main divisions in the field, such as: agricultural economics, farm management, agricultural marketing including coöperative marketing, agricultural statistics, or agricultural finance. Any one of these divisions offers many opportunities to the graduate.

SOPHOMORE YEAR

Fall Semester

No.	Subject	Cr. Hours
Ag 1	Soils, 2 *3	3
An 3	Care, Feed, Mgt. of Live Stock, 3 †2	4
Bt 45	General Genetics	3
Dh 1	General Dairying, 2 †4	4
Es 1a	Principles of Economics	3
Mt 3	Military, †3	2
Pt 3	Physical Education, 2	0
		19

Spring Semester

No.	Subject	Cr. Hours
Ag 14	Field Crops (Corn), 1 †2	2
	or	
Ag 16	Field Crops (Forage Crops), 1 †2	
Bc 8	Agricultural Chemistry	2
Fm 48	Agricultural Economics	3
Mt 4	Military, †3	2
Pt 4	Physical Education, 2	0
	Elective	9
		18

JUNIOR YEAR

Fall Semester			*Spring Semester*		
No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
*Ag 15	Field Crops (Tubers), 1 †2	2	Fm 52	Farm Accounting, 1 *6	3
Bv 3	Bacteriology	2	Fm 76	Agr. Marketing	3
Eh 5	Technical Composition	2		Elective	12
Fm 73	Adv. Agr. Economics	3			
Fm 75	Agricultural Statistics, 1 *3	2			
	Elective	8 or 10			
		19			18

SENIOR YEAR

No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Fm 77	Agricultural Finance	2	Fm 74	Farm Management, 3 *3	4
Fm 79	Coöperative Marketing	2	Fm 82	Current Economic Problems	1
Fm 81	Current Economic Problems	1	Fm 84	Thesis	3
Fm 83	Thesis	3	*Fm 86	Agr. Marketing	2
Fm 85	Agr. Marketing or 86 in Spring	2		Elective	8 or 10
Fm 87	Agricultural Prices	2			
	Elective	6			
		18			18

*Not required if Fm 85 was taken in Fall.

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 importance of teaching agriculture in secondary schools, has through the Smith-Hughes Act made it possible for school boards to obtain Federal aid in this

*Not required if Ag 14 or Ag 16 was taken in Sophomore Year.

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 or Education 78; Agricultural Education 1 or 2; Agricultural Education 3; Agricultural Education 6; Farm Management 74; Dairy Husbandry 1; 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 birthdays. One of these years must include 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.

SOPHOMORE YEAR

Fall Semester

No.	Subject	Cr. Hours
Ag 1	Soils, 2 *3	3
An 3	Care, Feed, Mgt. of Live Stock, 3 †2	4
Bc 1	Organic Chemistry, 2 †2	3
En 21	Gen'l Entomology, 2 †4	4
Mt 3	Military, †3	2
Pt 3	Physical Education, 2	0
	Elective	3 or 4
	Option	
Dh 1	General Dairying, 2 †4	4
	or	
Ht 1	Commercial Fruit Handling, 2 †2	3
		19 or 20

Spring Semester

No.	Subject	Cr. Hours
Bc 2	Biochemistry, 3 †4	5
Fm 48	Agricultural Economics	3
Mt 4	Military, †3	2
Pt 4	Physical Education, 2	0
	Elective	9
		19

JUNIOR YEAR

Fall Semester				*Spring Semester*			
No.		Subject	Cr. Hours	No.		Subject	Cr. Hours
Ag	33	Farm Structures, 2 *3	3	Ag	72	Farm Machinery, 2 *3	3
An	7	Animal Hygiene	2	An	6	Physiology of Domestic Animals	3
Bv	1	Bacteriology, †6	3	Bc	8	Agricultural Chemistry	2
Bv	3	Bacteriology	2	Ed	78	Principles and Methods of Teaching in Secondary Schools	3
Ed	59	Prin. Secondary Education	3	Ht	20	Vegetable Gardening, 2†2	3
Eh	5	Technical Composition	2			Elective	4
		Option					
*Dh	1	General Dairying, 2 †4	4				
		or					
*Ht	1	Commercial Fruit Handling, 2 †2	3				
			18 or 19				18

SENIOR YEAR

No.		Subject	Cr. Hours	No.		Subject	Cr. Hours
Ae	3	Special Methods in Teaching Agriculture, 2 †2	3	Ae	4	Practice Teaching	4
Ag	3	Soil Fertility	2	Ae	6	Special Methods in Teaching Agriculture	2
Ag	71	Farm Engineering, 2 *3	3	Ag	34	Farm Shop, †4	2
Fm	73	Advanced Agr. Economics	3	Fm	52	Farm Accounting, 1 *6	3
		Elective	9	Fm	74	Farm Management, 3 *3	4
			20				15

Curriculum for Students Specializing in Agronomy and Agricultural Engineering

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, and presents opportunity also for

*Elect the one not taken in Sophomore Year.

elective studies in stock raising, fruit and vegetable growing, economics, botany, zoology, bacteriology, and kindred subjects.

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.

With the consent of the head of the department substitutions may be made in case major students in Agronomy desire to specialize in Soil or Agricultural Engineering subjects instead of Crops, provided plans are made early enough in the course for the student to take the subjects needed in their proper sequence.

SOPHOMORE YEAR

Fall Semester				*Spring Semester*			
No.		Subject	Cr. Hours	No.		Subject	Cr. Hours
Ag	1	Soils, 2 *3	3	Ag	16	Field Crops (Forage), 1 †2	2
An	3	Care, Feed, Mgt. of Live Stock, 3 †2	4	Bc	2	Biochemistry, 3 †4	5
Bc	1	Organic Chemistry, 2 †2	3	Bc	8	Agricultural Chemistry	2
Dh	1	General Dairying, 2 †4	4	Fm	48	Agricultural Economics	3
En	21	Gen'l Entomology, 2 †4	4	Mt	4	Military, †3	2
Mt	3	Military, †3	2	Pt	4	Physical Education, 2	0
Pt	3	Physical Education, 2	0			Elective	4
			20				18

JUNIOR YEAR

No.		Subject	Cr. Hours	No.		Subject	Cr. Hours
Ag	15	Field Crops (Tubers), 1 †2	2	Ag	14	Field Crops (Corn), 1 †2	2
Bt	45	General Genetics	3	Ag	60	Field Crops (Crop Improvement)	2
Bt	53	Plant Physiology, 2 †4	4	Bt	56	Plant Pathology, 2 †4	4
Bv	1	Bacteriology, †6	3	Fm	76	Agr. Marketing	3
Bv	3	Bacteriology	2			Elective	7
Eh	5	Technical Composition	2				
		Elective	2				
			18				18

SENIOR YEAR

Fall Semester			*Spring Semester*		
No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Ag 3	Soil Fertility	2	Ag 20	Field Crops (Potato Diseases), 1 †2	2
Ag 13	Field Crops (Seed and Grain Identification), †4	2	Ag 72	Farm Machinery, 2 *3	3
Ag 71	Farm Engineering, 2 *3	3	Fm 52	Farm Accounting, 1 *6	3
	Elective	11	Fm 74	Farm Management, 3 *3	4
				Elective	6
		18			18

Curricula for Students Specializing in Animal Husbandry, Dairy Husbandry, Dairy Technology, or Poultry Husbandry

SOPHOMORE YEAR

No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Ag 1	Soils, 2 *3	3	Ag 16	Field Crops (Forage), 1 †2	2
An 3	Care, Feed, and Mgt. of Live Stock, 3 †2	4	Bc 2	Biochemistry, 3 †4	5
Bc 1	Organic Chemistry, 2 †2	3	Fm 48	Agricultural Economics	3
Dh 1	General Dairying, 2 †4	4	Mt 4	Military, †3	2
En 21	Gen'l Entomology, 2 †4	4	Pt 4	Physical Education, 2	0
Mt 3	Military, †3	2		Elective	6
Pt 3	Physical Education, 2	0			
		20			18

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, such as the meat packing business or the commercial feed business. The training he has received has furnished him with the necessary fundamental equipment to enable him to succeed.

JUNIOR YEAR

Fall Semester			*Spring Semester*		
No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
An 5	Anatomy of Domestic Animals, 2 †3	3	An 6	Physiology of Domestic Animals	3
Bc 9	Animal Biochemistry	2	An 52	Adv. Live Stock Judging and Mgt., †2	1
Bt 45	General Genetics	3	An 54	Adv. Live Stock Feeding	2
Bv 1	Bacteriology, †6	3	Bv 52	Bacteriology, 1 †4	3
Bv 3	Bacteriology	2		Elective	9
Eh 5	Technical Composition	2			
	Elective	3			
		18			18

SENIOR YEAR

No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Ag 3	Soil Fertility	2	Ag 72	Farm Machinery, 2 *3	3
Ag 71	Farm Engineering, 2 *3	3	An 60	Adv. Animal Breeding, 1 †2	2
An 7	Animal Hygiene	2	An 64	Seminar	1
An 55	Adv. Livestock Feeding	2	Fm 52	Farm Accounting, 1 *6	3
An 63	Seminar	1		Elective	9
	Elective	8			
		18			18

DAIRY HUSBANDRY AND DAIRY TECHNOLOGY

These curricula are more specialized than that for Animal Husbandry in that dairy production and dairy manufactures are dealt with more specifi-

cally. The student pursuing one or the other of these curricula prepares himself to follow the business of dairy farming from the standpoint of efficient dairy-cattle breeding and efficient milk production, or some other phase of the dairy industry such as the market-milk business, butter manufacturing, cheese manufacturing, condensed and powdered milk industry, and ice-cream manufacturing, each of which is contantly adding to its personnel young men who have received training similar to that offered in the Dairy Husbandry and Dairy Technology curricula. 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.

DAIRY HUSBANDRY

JUNIOR YEAR

Fall Semester				*Spring Semester*			
No.		Subject	Cr. Hours	No.		Subject	Cr. Hours
An	5	Anatomy of Domestic Animals, 2 †3	3	An	6	Physiology of Domestic Animals	3
Bc	9	Animal Biochemistry	2	An	52	Adv. Live Stock Judging and Mgt., †2	1
Bt	45	General Genetics	3	An	54	Adv. Live Stock Feeding	2
Bv	1	Bacteriology, †6	3	Bv	52	Bacteriology, 1 †4	3
Bv	3	Bacteriology	2	Dh	2	Butter Making, 1 †4	3
Dh	5	Market Milk, 2 †4	4			Elective	2
Eh	5	Technical Composition	2				
			19				17

SENIOR YEAR

No.		Subject	Cr. Hours	No.		Subject	Cr. Hours
Ag	3	Soil Fertility	2	Ag	72	Farm Machinery, 2 *3	3
Ag	71	Farm Engineering, 2 *3	3	An	60	Adv. Animal Breeding, 1 †2	2
An	7	Animal Hygiene	2	An	64	Seminar	1
An	63	Seminar	1	Bv	54	Bacteriology (Dairy), 1 †4	3
Dh	3	Cheese Making, 2 *6	4	Fm	52	Farm Accounting, 1 *6	3
		Elective	6			Elective	6
			18				18

DAIRY TECHNOLOGY

JUNIOR YEAR

Fall Semester

No.	Subject	Cr. Hours
Bv 1	Bacteriology, †6	3
Bv 3	Bacteriology	2
Dh 5	Market Milk, 2 †4	4
Eh 5	Technical Composition	2
	Elective	7
		18

Spring Semester

No.	Subject	Cr. Hours
Bv 54	Bacteriology (Dairy), 1 †4	3
Dh 2	Butter Making, 1 †4	3
Dh 4	Condensed Milk, 2 †4	4
Dh 6	Dairy Products Judging, †2	1
Fm 76	Agricultural Marketing	3
	Elective	4
		18

SENIOR YEAR

No.	Subject	Cr. Hours
Dh 3	Cheese Making, 2 *6	4
Dh 51	Dairy Technology	3
Dh 63	Adv. Dairy Products Testing, †2	1
Es 9	Accounting, 2 †2	3
Fm 85	Agr. Marketing (Dairy & Poultry Products)	2
	Elective	5
		18

No.	Subject	Cr. Hours
Dh 58	Ice Cream Making, 2 †4	4
Dh 64	Adv. Dairy Products Testing, †2	1
Dh 66	Dairy Machinery, †2	1
Es 10	Accounting, 2 †2	3
	Elective	9
		18

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

No.	Subject	Cr. Hours
An 5	Anatomy of Domestic Animals, 2 †2	3
Bc 9	Animal Biochemistry	2
Bt 45	General Genetics	3
Bv 1	Bacteriology, †6	3
Bv 3	Bacteriology	2
Eh 5	Technical Composition	2
Ph 3	Exhibition and Production Judging, 1 †2	2
	Elective	1
		18

Spring Semester

No.	Subject	Cr. Hours
An 6	Physiology of Domestic Animals	3
Bv 52	Bacteriology, 1 †4	3
Fm 76	Agricultural Marketing	3
Ph 2	Poultry Breeding	2
	Elective	7
		18

SENIOR YEAR

No.	Subject	Cr. Hours
Ag 3	Soil Fertility	2
Ag 71	Farm Engineering, 2 *3	3
Fm 85	Agricultural Marketing	2
Ph 5	Poultry Feeding	2
Ph 7	Poultry Literature	2
	Elective	7
		18

No.	Subject	Cr. Hours
Fm 52	Farm Accounting, 1 *6	3
Ph 4	Incubation and Brooding, 2 †2	3
Ph 6	Poultry Farm Management, 1 †2	2
Ph 8	Poultry Diseases	2
	Elective	8
		18

Curriculum for Students Specializing in Bacteriology

This curriculum is designed primarily for those students who desire to fit themselves for laboratory technicians or for research in the field of general or applied Bacteriology. Stress is placed not only upon the agricultural phases of Bacteriology, but also upon the sanitary and technical aspects. Stu-

dents interested in Bacteriology as applied to agriculture will take the regular freshman curriculum in agriculture; others will be guided by the freshman curriculum as outlined below. Two years of French or German, or its equivalent are required.

FRESHMAN YEAR

Fall Semester

No.	Subject	Cr. Hours
Ch 1	Inorganic Chemistry, 2 †4	4
Eh 1	Exposition	3
Gm 1	1st Year German	5
	or	
Fr 3	Intermediate French	
Mt 1	Military, †3	1½
Zo 1	General Zoology, 2 †4	4
Pt 1	Physical Education, 2	0
	Elective	1
		18½

Spring Semester

No.	Subject	Cr. Hours
Ch 2	Inorganic Chemistry, 2† 4	4
Bt 2	General Botany, 2 †4	4
Eh 2a	Exposition	3
Gm 2	1st Year German	5
	or	
Fr 4	Intermediate French	
Mt 2	Military, †3	1½
Pt 2	Physical Education, 2	0
	Elective	1
		18½

SOPHOMORE YEAR

No.	Subject	Cr. Hours
Ag 1	Soils, 2 *3	3
Bc 1	Organic Chemistry, 2 †2	3
Ch 31	Qualitative Analysis, 2 *8	5
Gm 3	2nd Year German	3
	or	
Fr 5	Advanced French	
Mt 3	Military, †3	2
Pt 3	Physical Education, 2	0
	Elective	4
		20

No.	Subject	Cr. Hours
Bc 2	Biochemistry, 3 †4	5
Ch 40	Quantitative Analysis, 2 *8	5
Gm 4	2nd Year German	3
	or	
Fr 6	Advanced French	
Mt 4	Military, †3	2
Pt 4	Physical Education, 2	0
	Elective	5
		20

JUNIOR YEAR

Fall Semester			*Spring Semester*		
No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Bc 51	Biochemistry	3	Bc 64	Biochemical Laboratory Methods, †6	3
Bt 53	Plant Physiology, 2 †4	4	Bv 52	Bacteriology, 1 †4	3
Bv 1	Bacteriology, †6	3	Bv 54	Bacteriology (Dairy), 1 †4	3
Bv 3	Bacteriology	2		Elective	8
Dh 1	General Dairying, 2†4 or Elective 4	4			
	Elective	3			
		19			17

SENIOR YEAR

No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Bc 57	Biological Colloids	3	Bv 62	Bacteriology Seminar	1
Bv 55	Bacteriology (Soil), †4	2	Bv 102	Problems in Bacteriology, †4 to †8	2 to 4
Bv 57	Bacteriology (Soil)	2	Ch 72b	Physical Chemistry	3
Bv 61	Bacteriology Seminar	1		Elective	9 to 11
Bv 101	Problems in Bacteriology, †4 to †8	2 to 4			
Ch 71b	Physical Chemistry	3			
	Elective	2 to 4			
		17			17

Curriculum for Students Specializing in Biological and Agricultural Chemistry

The curriculum in Biological and Agricultural Chemistry is designed to give the student an opportunity to specialize in chemistry of plant and animal life. With proper choice of electives under the direction of the major instructor students may also pursue special work in agricultural chemistry, particularly in chemistry of the soil and fertilizers.

SOPHOMORE YEAR

Fall Semester

No.	Subject	Cr. Hours
Ag 1	Soils, 2 *3	3
Bc 1	Organic Chemistry, 2 †2	3
Ch 31	Qualitative Analysis, 2 *8	5
Gm 1	1st Year German	5
	or	
Fr 3	Intermediate French	
Mt 3	Military, †3	2
Pt 3	Physical Education, 2	0
		18

Spring Semester

No.	Subject	Cr. Hours
Bc 2	Biochemistry, 3 †4	5
Ch 40	Quantitative Analysis, 2 *8	5
Gm 2	1st Year German	5
	or	
Fr 4	Intermediate French	
Mt 4	Military, †3	2
Pt 4	Physical Education, 2	0
	Elective	2
		19

JUNIOR YEAR

No.	Subject	Cr. Hours
Bc 9	Animal Biochemistry	2
Bv 1	Bacteriology, †6	3
Bv 3	Bacteriology	2
Ch 71b	Physical Chemistry	3
Gm 3	2nd Year German	3
	or	
Fr 5	Advanced French	
	Elective	6
		19

No.	Subject	Cr. Hours
Bc 64	Biochemical Laboratory Methods, †6	3
Bc 56	Agricultural Analysis, †4	2
Bv 52	Bacteriology, 1 †4	3
Ch 72b	Physical Chemistry	3
Gm 16	Scientific German 2	3
	or	
Fr 6	Advanced French 3	
	Elective 1	
	Elective	4
		18

SENIOR YEAR

No.	Subject	Cr. Hours
Bc 57	Biological Colloids	3
Bc 101	Research, †8	4
	Elective	11
		18

No.	Subject	Cr. Hours
Bc 102	Research, †8	4
	Elective	14
		18

Curricula for Students Specializing in Botany and Entomology

These curricula are designed for those preparing themselves to engage in teaching or to enter the field of research in either the pure or applied science of Botany or Entomology. Students interested in Botany or Entomology as applied to agriculture will take the regular freshman curriculum in agriculture. Others will be guided by the freshman curriculum outlined below. Two years of French or German, or its equivalent, are required.

Botany or Entomology

FRESHMAN YEAR

Fall Semester				*Spring Semester*			
No.		Subject	Cr. Hours	No.		Subject	Cr. Hours
Ch	5	Inorganic Chemistry, 2 †4	4	Bt	2	General Botany, 2 †4	4
Eh	1	Exposition	3	Ch	6	Inorganic Chemistry, 2 †4	4
Mt	1	Military, †3	1½	Eh	2a	Exposition	3
Zo	1	General Zoology, 2 †4	4	Mt	2	Military, †3	1½
Pt	1	Physical Education, 2	0	Pt	2	Physical Education, 2	0
		Elective	6			Elective	6
			18½				18½

Botany

SOPHOMORE YEAR

No.		Subject	Cr. Hours	No.		Subject	Cr. Hours
Bc	3	Organic Chemistry, 3 †2	4	Bc	2	Biochemistry, 3 †4	5
Eh	5	Technical Composition	2	Eh	10	Modern Literature	2
En	21	Gen'l Entomology, 2 †4	4	Gm	2	1st Year German	5
Gm	1	1st Year German	5	Mt	4	Military, †3	2
Mt	3	Military, †3	2	Pt	4	Physical Education, 2	0
Pt	3	Physical Education, 2	0			Elective	4
		Elective	2				
			19				18

JUNIOR YEAR

Fall Semester			Spring Semester		
No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Bt 29	Cryptogamic Botany, 1 †4	3	Bt 56	Plant Pathology, 2 †4	4
Bt 53	Plant Physiology, 2 †4	4	Bv 2	Bacteriology, †6	3
Bt 57	Taxonomy, 2 †4 or	4	Gm 16	Scientific German	2
Bt 59	Mycology, 2 †4			Elective	9
Bv 3	Bacteriology	2			
Gm 3	Second Year German	3			
Gy 5	Geology	3			
		19			18

SENIOR YEAR

No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Bt 33	Forest Botany, 2 †4	4	Bt 30	Plant Ecology, 1 †2	2
Bt 35	Plant Anatomy, 2 †4	4	Fm 48	Agricultural Economics	3
Bt 45	Genetics	3		Elective	13
Bt 57	Taxonomy, 2 †4 or	4			18
Bt 59	Mycology, 2 †4				
Es 1a	Principles of Economics	3			
		18			

Entomology

SOPHOMORE YEAR

No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Bc 1	Organic Chemistry, 2 †2	3	Bc 2	Biochemistry, 3 †4	5
En 21	Gen'l Entomology, 2 †4	4	En 22	Forest Entomology, 2 †4	4
Gm 1	1st Year German	5	Gm 2	1st Year German	5
Mt 3	Military, †3	2	Mt 4	Military, †3	2
Pt 3	Physical Education, 2	0	Pt 4	Physical Education, 2	0
	Elective	5		Elective	3
		19			19

JUNIOR YEAR

Fall Semester			*Spring Semester*		
No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Bt 29	General Cryptogamic Botany, 1 †4 3	3	Bt 56	Plant Pathology, 2 †4...	4
	or	or	En 40	Apiculture, 1 †2	
Bt 57	Taxonomy of Vascular Plants, 2 †4.....4	4		or	
Bv 3	Bacteriology	2	En 48	Advanced Forest Entomology, 1 †2	2
En 49	Economic Entomology, 2 †4.....	4	En 50	Morphology of Insects, 2 †4.....	4
	Modern Language.....	3		Economics	3
	Elective.....6 or	5		Modern Language.....	2
				Elective	3
		18			18

SENIOR YEAR

No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Bt 29	General Cryptogamic Botany, 1 †4 3	3	En 40	Apiculture, 1 †2	
	or	or		or	
Bt 57	Taxonomy of Vascular Plants, 2 †4.....4	4	En 48	Advanced Forest Entomology, 1 †2	2
Bt 33	Dendrology, 2 †4.....	4	En 52	Taxonomy of Insects II, 1 †4	3
En 51	Taxonomy of Insects I, 1 †4.....	3		Elective 13	
	Elective.....8 or	7			
		18			18

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, public grounds and parks, and the construction and care of 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 mentioned 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, agricultural extension work, and civil service positions. Those who demonstrate superior capabilities will be encouraged to fit themselves through graduate study to be college teachers and research workers in Horticulture and related fields.

For graduation a minimum of twenty-five 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 vegetables: (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 students in the selection of elective courses that such abilities and strong interests as are early shown may be developed to the greatest extent possible, but not at the sacrifice of well-rounded development.

It will avoid conflicts in scheduling if such Horticulture courses as may be required or are desired as electives are scheduled in the following sequence: freshman year, Course 2; sophomore year, Courses 1 and 4; junior year Courses 5, 7, 20, and 54; senior year, Courses 3, 10, 21, 51, 52, 55, and 56. The problem courses may preferably be taken in junior and senior years.

SOPHOMORE YEAR

Fall Semester			*Spring Semester*		
No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Ag 1	Soils, 2 *3	3	Bc 2	Biochemistry, 3 †4	5
Bc 1	Organic Chemistry, 2 †2	3	Bc 8	Agr. Chemistry	2
En 21	Gen'l Entomology, 2 †4	4	Fm 48	Agricultural Economics	3
Fm 75	Agr. Statistics, 1 *3 ... 2		Mt 4	Military, †3	2
Ms 1	Trigonometry ... 2	4*	Pt 4	Physical Education, 2	0
Ms 3	College Algebra ... 2			Elective	7
Mt 3	Military, †3	2			
Pt 3	Physical Education, 2	0			
	Elective	3			
		19			19

*Elect two of the three courses.

JUNIOR YEAR

Fall Semester				*Spring Semester*			
No.	Subject	Cr. Hours		No.	Subject	Cr. Hours	
Ag 71	Farm Engineering, 2 *3..	3		Bt 56	Plant Pathology, 2 †4...	4	
Bt 53	Plant Physiology, 2 †4....	4		Bv 2	Bacteriology, †6.....	3	
Bv 3	Bacteriology	2			Horticulture	6	
Eh 5	Technical Composition ...	2			Elective	6	
	Horticulture	3					
	Elective	5					
		19				19	

SENIOR YEAR

No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Bt 45	General Genetics.....	3	*Fm 74	Farm Management....	4
	Horticulture	7		Horticulture	6
	Elective	7		Elective	7
		17			17

*In special cases some other course may be approved by the major instructor.

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 requirements 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 postgraduate 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 at special camps operated by the Forestry Department, University of Maine, located in Indian Township, near Princeton, Maine.

FRESHMAN YEAR

Fall Semester

No.		Subject	Cr. Hours
Ch	1	General Chemistry, 2 †4	4
Eh	1	Exposition	3
Fy	1	Economics of Forestry	2
Md	1	Fundamentals of Drafting, †4	2
Ms	9	Trigonometry	2
Mt	1	Military, †3	1½
Zo	1	General Zoology, 2 †4	4
Pt	1	Physical Education, 2	0
			18½

Spring Semester

No.		Subject	Cr. Hours
Bt	2	General Botany, 2 †4	4
Ch	2	General Chemistry, 2 †4	4
Eh	2a	Exposition	3
Md	2	Elementary Machine Drafting, †4	2
Ms	2a	Solid Geometry	2
Ms	10	Applications of Trigonometry	2
Mt	2	Military, †3	1½
Pt	2	Physical Education, 2	0
			18½

SOPHOMORE YEAR

No.		Subject	Cr. Hours
Ag	1	Soils, 2 *3	3
Bt	33	Forestry Botany (Dendrology), 2 †4	4
Ce	1	Plane Surveying	3
Ce	3	Field Work and Plotting, *9	3
Eh	5	Technical Composition	2
Es	1b	Prin. of Economics	2
Mt	3	Military, †3	2
Pt	3	Physical Education, 2	0
			19

No.		Subject	Cr. Hours
Bt	34	Forest Botany (Physiography), 2 †4	4
Eh	10	Modern Literature	2
En	22	Forest Entomology, 2 †4	4
Es	2b	Prin. Economics	2
Ce	4	Field Work in Surveying, *9 (Last 6 wks)	1
Fy	4	Wood Preservation	1
Fy	10	Forest Protection	1
Mt	4	Military, †3	2
Pt	4	Physical Education, 2	0
		Elective	2
			19

JUNIOR YEAR

Fall Semester

No.	Subject	Cr. Hours
Bt 35	Plant Anatomy, 2 †4	4
Ce 21	Railroad Field Work, *3	1
Ce 23	Railroad Office Work, *3	1
Ce 27	Simple Curves and Earthwork	1
Fy 11	Forest Mensuration	2
Fy 13	Forest Mensuration Field Work, *6	2
Gy 5	Geology	3
Ht 5	Landscape Gardening, 2 †2	3
		17

Spring Semester

No.	Subject	Cr. Hours
Bt 32	Plant Physiology, 2 †4	4
Ce 22	Advanced Surveying	1
Ce 24	Junior Field Work	1
Fy 6	Forest Mensuration	2
Fy 8	Forest Mensuration Field Work, *6	2
Ps 10	Meteorology	3
	Elective	6
		19

SENIOR YEAR

No.	Subject	Cr. Hours
	First Half Semester:	
Fy 3	Lumber Industry	2
Fy 5	History of Forestry	1
Fy 9	Forest Products	1
Fy 15	Silviculture	1
Fy 17	Silviculture Field Work, *6	1
Fy 19	Lumbering	1
Fy 21	Lumbering Field Work, *6	1
	Second Half Semester (In Camp)	
Fy 31	Logging Engineering, *16	3
Fy 33	Forest Management, *16	3
Fy 35	Cruising and Mapping, *16	3
		17

No.	Subject	Cr. Hours
Bt 42	Forest Pathology, 2 †4	4
Fy 12	Practice of Forestry	2
Fy 14	Nursery Practice, *6	2
Fy 16	Silviculture	2
*Fy 18	Advanced Nursery Practice, †8	2
Fy 20	Forest Finance	2
Fy 22	Policy and Laws	2
Fy 30	Wood Identification and Uses, 2 (†2, 9 wks.)	2
	Elective	1
		19

*Last 9 weeks.

Curricula in Home Economics

The Department of Home Economics offers curricula based on a consideration of the problems of the contemporary home and responsibilities of the modern home maker. The basic curriculum requires foundation work in the physical and special sciences essential to the understanding of such problems, and Home Economics courses applying these sciences to develop judgment and skill in solving them.

In addition each student is required to add to this basic course a vocational sequence which will prepare her for some one of the vocations for which the understanding of the modern home is essential or desirable. These sequences are listed below. As it is impossible in the limited time of classroom and laboratory to develop to a point of skill all the techniques necessary to success in any one of these vocations, the student is expected to make provision during her vacations, or during the school year, for developing the kinds and degrees of skill essential to beginning the vocation she has selected.

Each curriculum, also, includes in its total of 128 hours, 24 to 31 hours of electives.

Basic Curriculum in Home Economics

FRESHMAN YEAR

Fall Semester

No.	Subject	Cr. Hours
Ch 5	Inorganic Chemistry, 2 †4	4
Eh 1	Exposition	3
He 1	Textiles and Clothing, 2 †4	4
He 3	Design, 1 †4	3
Pe 1	Physical Education, 2	0
	Elective or Vocational sequence	2
		16

Spring Semester

No.	Subject	Cr. Hours
Ch 6	Inorganic Chemistry, 2 †4	4
Eh 2a	Exposition	3
He 2	Textiles and Clothing, 2 †4	4
Zo 2	Zoology, 2 †2	3
Pe 2	Physical Education, 2	0
	Elective or Vocational sequence	2
		16

SOPHOMORE YEAR

Fall Semester				*Spring Semester*			
No.		Subject	Cr. Hours	No.		Subject	Cr. Hours
Bc	3	Organic Chemistry, 3 †2..	4	Bc	4	Biochemistry, 2 †4.....	4
Es	1b	Principles of Economics..	2	He	6	Foods, 2 †4.....	4
He	5	Foods, 2 †4.....	4	He	8	Professional Lecture....	1
He	17	The House, 2 †2.....	3	Py	2	General Psychology....	3
Py	1	General Psychology.....	3	Zo	12	Human Physiology, 2 †4	4
Pe	3	Physical Education, 2....	0	Pe	4	Physical Education, 2...	0
			16				16

JUNIOR YEAR

No.		Subject	Cr. Hours	No.		Subject	Cr. Hours
Bv	3	Bacteriology	2	He	10	Sanitation and Public Health	3
Bv	5	Bacteriology, †2	1	He	14	The Pre-school Child...	3
Es	41	General Sociology.....	3	Es	42	General Sociology	3
		Vocational sequence and Elective	10			Vocational sequence and Elective	7
			16				16

SENIOR YEAR

He	11	Household Management ..	4	*He	22	Household Administration	3
He	21	Household Administration	3			Vocational sequence and Elective.....13 or	16
		Vocational sequence and Elective	13				
			16				16

*If He 21 was not taken in fall.

Vocational Sequences

Home Economics Education

To teach Home Economics in public schools in Maine, which receive State aid for their Home Economics program, it is necessary to hold the Special Home Economics Certificate.

The following courses (22 hrs.) listed below, in addition to the basic curriculum, fulfill the requirements for that certificate, also for the Secondary Professional Certificate. This curriculum, in addition, makes a teacher eligible, after two years' experience, for the Vocational Home Economics Certificate necessary to teach in the Federal-aided vocational home economics courses authorized by the Smith-Hughes and George-Reed Acts.

He 51, 52	Advanced Clothing	6 hrs.
He 63 and 65 or 66	Nutrition and Dietetics	4 hrs.
Ed 77 or 78	Principles and Methods	3 hrs.
Ed	Education	3 hrs.
He 56	Home Economics Ed.	3 hrs.
He 71 or 72	Supervised Teaching	3 hrs.
		22 hrs.

Other Vocational Sequences

For other vocational sequences, the student will select fifteen hours of work related to her vocational interest, from a sequence list of courses contributory to that vocation. These sequence lists will be furnished by the department.

The sequences offered are as follows:

Extension—for students interested in Home Demonstration or 4-H Club work

Foods and Nutrition—for students preparing for positions as hospital dietitians, Red Cross nutritionists, research workers in foods and nutrition, or home economists in commercial foods work

Textiles and Clothing—for students interested in the clothing, textile, or decoration field, either as research workers or as stylists, designers, buyers, or advertising copy writers

Child Development and Training—for students preparing to work in the new and rapidly expanding fields of nursery school, and parental education. Arrangements may be made for properly recommended students to do one semester's work in this field at the Merrill-Palmer School, Detroit, Michigan

Where vocational interests are not met by these groups, special sequences will be formulated to fit individual cases, such as home economics journalism, household equipment, and social service.

Special Students in 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 (at least twenty-one years of age) 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 of training for young men 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. Open to women.

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 high-school work are eligible for registration.

On completion of the course a certificate is awarded those who have satisfactorily met the requirements.

Curriculum for Two-Year Course in Agriculture

FIRST YEAR

Fall Semester		*Spring Semester*	
Subject	Hours	Subject	Hours
Animal Husbandry, 2 †2	3	Carpentry, †4	2
Business Arithmetic	2	Dairy Husbandry, 3 *3	4
English	2	English	2
Farm Botany, 1 †2	2	Fruit Growing, 2 *3	3
Farm Crops, 3 *3	4	Poultry Husbandry, 2 †2	3
Forge Work, *3	1	Soils and Fertilizers, 3 *3	4
Fruit Handling, 2 *3	3		
Poultry Husbandry, 2 †2	3		
	20		18

SECOND YEAR

Subject	Hours
Animal Husbandry, 2 †2	3
English	2
Farm Engineering and Mechanics, 2 *3	3
Farm Insects, 1 †2	2
Farm Management, 2 *3	3
Poultry Husbandry	2
Vegetable Growing, 2 *3	3
Animal Husbandry (Common Diseases of Farm Animals)	3
	21

Subject	Hours
Animal Husbandry, 3 †2	4
English	2
Farm Chemistry	3
Farm Crops	2
Farm Machinery, 2 *3	3
Forestry	2
Poultry Husbandry	2
Small Fruit Culture and Plant Propagation, 2 *3	3
	21

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 79.

First Year—Fall Semester

Animal Husbandry—Dairy Production.—A general survey of the field of dairy production and economic reasons for growth of the dairy industry. Breeds of dairy cattle, and their care, feed, and management. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* Mr. Hall

Business Arithmetic.—A course in arithmetic based on the problems confronting the farmer in his business. *Two hours a week. Credit, two hours.* 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. *Two hours a week. Credit, two hours.* English Department

Farm Botany.—Plant structure and tissues in their relation to plant growth and development and to agricultural practices. Classroom, *one hour a week;* laboratory, †*two hours a week. Credit, two hours.* Mr. Steinmetz

FARM CROPS.—Practices in growing crops under field conditions. Classroom, *three hours a week;* laboratory, **three hours a week. Credit, four hours.* MR. SNYDER

FORGE WORK.—Forging; welding; tool steel work. Laboratory, **three hours a week. Credit, one hour.* MR. DAVEE

FRUIT HANDLING.—Picking, packing, grading, storing, shipping, and marketing of fruit, particularly 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. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* MR. RILEY

POULTRY HUSBANDRY.—Origin and development of types, breeds, and varieties of poultry; care, feed, and management; housing and house construction; breeding, incubation, and brooding; and marketing poultry products. Laboratory practice in judging poultry for exhibition and egg production. Judging, candling, grading, and packing eggs. Killing, picking, and packing poultry. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* 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. Laboratory, †*four hours a week. Credit, two hours.* MR. SIMMONS, MR. SWIFT

DAIRY HUSBANDRY—GENERAL DAIRYING.—Milk secretion and composition; testing of milk and milk products; sanitary production and handling of milk from farm to consumer; cream separation; and buttermaking. Classroom, *three hours a week;* laboratory, **three hours a week. Credit, four hours.* MR. BLANCHARD

ENGLISH.—A continuation of the work of the fall. *Two hours a week. Credit, two hours.* ENGLISH DEPARTMENT

FRUIT GROWING.—Principles and practices which should be followed in choosing an orchard site, and in the subsequent planting; and culture, pest control, and other care leading to the production of profitable crops. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* MR. RILEY

POULTRY HUSBANDRY.—A continuation of the course given in the fall semester. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* MR. GARDNER

Soils and Fertilizers.—Properties, management, and fertilization of soils in relation to fitting them for production of crops. Classroom, *three hours a week;* laboratory, **three hours a week. Credit, four hours.*

Mr. Swift

Second Year—Fall Semester

Animal Husbandry—General Animal Husbandry.—Breeds, and care, feed, and management of horses, beef cattle, sheep, and swine. Laboratory work in judging horses, sheep, and swine. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* Mr. Hall

Animal Hu.bandry—Common Diseases of Farm Animals.—A general course including anatomy, physiology, hygiene, and sanitation. Methods for the prevention and control of the common diseases of domestic animals are given special attention. *Three hours a week. Credit, three hours.*

Mr. Witter

English.—Instruction in practical uses of English, including business correspondence, with as much review of grammar as seems necessary. *Two hours a week. Credit, two hours.* English Department

Farm Engineering and Mechanics.—Running farm lines, laying out drainage systems, and planning farm buildings and conveniences. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Simmons, Mr. Swift

Farm Insects.—A practical study of insects in their economic relationships to farm plants and farm animals. Classroom, *one hour a week;* laboratory, †*two hours a week. Credit, two hours.* Mr. Dirks

Farm Management.—Factors that affect the profitable operation of the farm as a business unit including size of business; labor efficiency; crop rotation; farm layout; and production costs. Individual farming systems are studied. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Parsons

Poultry Husbandry—Poultry Management.—A general consideration of poultry management with especial reference to sanitation and disease. *Two hours a week. Credit, two hours.* Mr. Gardner

Vegetable Growing.—Production of vegetables for home use. Important commercial vegetables of New England. Handling of forcers, growing of seedlings, marketing, and other topics are included in as much detail as time will permit. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Riley

Second Year—Spring Semester

ANIMAL HUSBANDRY—FEEDING LIVESTOCK.—General principles underlying feeding of livestock; composition and characteristics of feed stuffs; calculating rations; and the best practices in feeding farm animals. Classroom, *three hours a week;* laboratory, †*two hours a week. Credit, four hours.* MR. HALL

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

FARM CROPS.—Grass and forage plants, their culture and uses. *Two hours a week. Credit, two hours.* MR. SNYDER

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

FARM CHEMISTRY.—A review of general chemistry; chemistry of plant and animal life as particularly related to agriculture; and brief consideration of soil chemistry. *Three hours a week. Credit, three hours.* MR. BOWEN

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. Credit, two hours.* MR. CHAPMAN

POULTRY HUSBANDRY—MARKETING POULTRY.—Common practices in handling, shipping, and marketing of poultry and poultry products. *Two hours a week. Credit, two hours.* MR. GARDNER

SMALL FRUIT CULTURE AND PLANT PROPAGATION.—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 general propagation of plants. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* MR. RILEY

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 prob-

lems of rural betterment. Considerable emphasis is placed on agricultural marketing problems peculiar to Maine. The homemaking program includes the various phases of home management and is of interest to both rural and urban homemakers. Dates and programs may be secured each year by addressing the College of Agriculture.

The Extension Service

The Extension Service is organized as a department of the College of Agriculture. It operates under the provisions of the Smith-Lever and Capper-Ketcham Acts, receiving its funds from State and Federal sources.

Its personnel is made up of two groups of agents. One group, the County Extension Agents, consists of agricultural agents, home demonstration agents, and club agents, having their headquarters within the counties in which they serve. The other group, the State Agent force, consists of a limited number of specialists and leaders having their headquarters at the University but working with and assisting the County Extension Agents.

The Extension Service through these men and women gives direct assistance to people living on the farms and in the rural and urban homes of this state. The Farm Bureau, an organization having a membership of more than 14,000 men and women, coöperates with the Extension Service in the determination and development of its county and community programs of work.

Extension 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.

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 throughout 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.

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 MANAGEMENT

PROFESSOR MERCHANT; PROFESSOR JONES; MR. PARSONS

47. AGRICULTURAL GEOGRAPHY.—A lecture course covering the agricultural regions of the world and more especially of the United States. The reasons why, both physical and economic, production of our agricultural commodities has become concentrated in certain areas and the possible expansion or contraction of production within these areas. *One hour a week. Credit, one hour.* MR. JONES

48. AGRICULTURAL ECONOMICS.—A general introductory course in the principles of economics as applied to agriculture. The following subjects are considered: development of commercial agriculture, price making forces, production, land tenure, land policies, farm capital, credit, farm labor, marketing, foreign trade, tariff, taxation, and farm income. This course is intended to give a broad fundamental training in the subject, and for those majoring in the department a foundation for further study. *Three hours a week. Credit, three hours.* MR. JONES

52. FARM ACCOUNTING.—All forms of farm records; farm inventories, cash accounts, single-enterprise cost accounts, complete farm cost accounting system, and miscellaneous records. Special emphasis is given to the interpretation of results and their practical application in the management of

farms. Classroom, *one hour a week;* laboratory, **six hours a week. Credit, three hours.* Mr. Jones, Mr. Parsons

73. Advanced Agricultural Economics.—An advanced course in the more important economic problems in agriculture, such as, farm labor; farm equipment; farm 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; and State and Federal aid. Prerequisite, Course 48. *Three hours a week. Credit, three hours.* Mr. Jones

74. Farm Management.—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; and study of farm organization and management of specific farms in the vicinity. Classroom, *three hours a week;* laboratory, **three hours a week. Credit, four hours.* Mr. Jones, Mr. Parsons

75. Agricultural Statistics.—An elementary course in principles involved in collection, analysis, and interpretation of agricultural statistics. The laboratory work consists of practical problems in frequency distribution; averages; measurements of dispersion; measurements of trends; seasonal variations, and cyclical fluctuations; simple index numbers; simple linear and non-linear correlations; and standard and probable errors. Classroom, *one hour a week;* laboratory, **three hours a week. Credit, two hours.* Mr. Merchant, Mr. Parsons

76. Agricultural Marketing.—Marketing of the more important agricultural products. The first part of the course deals with the economic principles of present marketing structure and its operation. The latter part involves the study of distribution and marketing of potatoes, apples, wheat, wool, hay, peaches, tobacco, truck crops, dairy products, poultry and poultry products, beef cattle, sheep, and hogs. The marketing of the more important agricultural products produced in Maine is emphasized. One week is devoted to a study of the principles of coöperative marketing. *Three hours a week. Credit, three hours.* Mr. Merchant

77. Agricultural Finance.—The farmers' credit problems including short time, intermediate, and long time credit. Special attention is given to study of the Federal Reserve System, Intermediate Credit System, and Federal Farm Loan Act. The material offered in the course is treated from the individual farmer's standpoint and from a national basis. *Two hours a week. Credit, two hours.* Mr. Merchant

79. Cooperative Marketing.—Principles involved in coöperative organizations including the more important factors affecting the efficiency and success of coöperative organizations, such as: volume of business, capital and finance, management and price policies. The history, organization, and management of coöperative associations marketing the more important agricultural products. *Two hours a week. Credit, two hours.* Mr. Parsons

81, 82. Current Economic Problems.—Individual study of some of the more important current economic problems in agriculture. In the fall semester problems in marketing, agricultural credit, and agricultural statistics are considered. Problems in the field of agricultural economics and farm management are given attention in the spring semester. Open to senior students who have had considerable work in the department. *One hour a week. Credit, one hour.* Mr. Merchant, Mr. Jones

83, 84. Thesis.—All senior major students of the department are required to prepare a comprehensive thesis on a problem in agricultural economics, farm management ,marketing, finance, and statistics or prices. **Six hours a week. Credit, three hours.* Mr. Jones

85. Agricultural Marketing (Dairy and Poultry Products).—A specialized course in the economic factors involved in marketing dairy and poultry products in New England. Production; regional competition; grades; containers; storage; transportation; finance; sales methods; foreign trade; tariff; surplus; demand, price, and methods of price determination; and the costs of marketing are considered. *Two hours a week. Credit, two hours.* Mr. Merchant

86. Agricultural Marketing (Fruits and Vegetables).—A specialized course in the economic factors involved in marketing apples, potatoes, and other important fruits and vegetables grown in New England. The topics considered: production; regional competition; grades; containers; storage; transportation; finance; sales methods and the costs of marketing. *Two hours a week. Credit, two hours.* Mr. Merchant

87. Agricultural Prices.—Prices of agricultural commodities produced in Maine and competing areas. The underlying factors causing price changes, including long-time trends, seasonal variations, and cyclical fluctuations. Prerequisite, Course 75. *Two hours a week. Credit, two hours.* Mr. Jones

101. Production Costs.—Cost of producing important farm commodities in Maine and in competing areas; relation of cost of production to price; and efficiency of production under varying economic conditions. Prerequisite, Course 52. Time and credit hours arranged. Mr. Jones

102. Advanced Agricultural Statistics.—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 credit hours arranged. Given in alternate years; not given in 1933-34.

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 is given an opportunity for study along some line in which he has a special interest. Prerequisite, Course 74. Time and credit hours arranged.

Mr. Jones

104. Advanced Agricultural Marketing.—Advanced work in the marketing of a specific agricultural commodity. Special emphasis is given to marketing potatoes, apples, poultry, eggs, milk, butter, and cheese. Problem method is followed. Prerequisite, permission to register. Time and credit hours arranged. Given in alternate years; not given in 1934-35.

Mr. Merchant

AGRICULTURAL EDUCATION

Professor Hill

1, 2. Practice Teaching.—Seniors who are taking a minor in agricultural education are expected to do some directed teaching in an approved school. This work may be done in either the fall or spring semester and either one or two hours credit may be earned. Time and credit hours arranged.

3. Special Methods in Teaching Agriculture.—The following topics are given consideration: Aims of vocational agricultural education; the Smith-Hughes and George-Reed Acts; the agricultural curriculum; program making; building the course of study; making teaching plans for the year; selecting teaching methods and devices; making lesson plans; teaching the lesson; room and equipment; texts and references; budgeting department needs; publicity, exhibits, community work; part-time and evening work; Future Farmers of America. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.*

4. Practice Teaching.—During the first six weeks of the spring semester the seniors are 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 are given an allowance to pay for their traveling expenses and board. *Credit, four hours.*

6. Special Methods in Teaching Agriculture.—Selection of projects; project plans; project records; project problems; project supervision; farm shop work; records and reports; work of the vocational agriculture teacher; current events in agricultural education; history of agricultural education. Classroom, *two hours a week. Credit, two hours.*

AGRONOMY

Professor Simmons; Assistant Professor Swift; Assistant Professor Snyder

Soils and Fertilizers

1. Soils.—Origin, types, physical properties, moisture content, and distribution of soils, and their relation to crop production. Fundamental principles underlying soil management for soil conservation and improvement. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Simmons, Mr. Swift

3. Soil Fertility.—Stable manures; green manures; commercial fertilizers; and soil amendments. A study also of soil organisms affecting the plant food in soil. *Two hours a week. Credit, two hours.* Mr. Swift

51. Soil Surveying, Mapping, and Classification.—Soil types, principles of correlation, and methods of soil surveying, mapping, and classification. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Swift

54. Soil Fertility.—Soil improvement investigation. A review of experimental work in this country and abroad. Application of these results to soil improvement and crop production problems. Prerequisites, Courses 1 and 3. *Two hours a week. Credit, two hours.* Mr. Swift

Agricultural Engineering

32. Farm Mechanics.—Simpler laws of mechanics as applied to farm implements, farm machinery, heating, lighting, and water supply. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Simmons, Mr. Swift

33. Farm Structures.—Location, planning, designing, and construction of farm buildings; water system; sewage disposal; and concrete construction on the farm. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Simmons, Mr. Swift

34. Farm Shop.—Training in use of tools and equipment for ordinary construction and repair work found necessary on the farm. Laboratory, †*four hours a week. Credit, two hours.* Mr. Simmons, Mr. Swift

71. Farm Engineering.—Farm surveying and leveling; plotting of farms and measurements of land; study of drainage; estimating the investment and returns for a system of drainage; roads; and road materials. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Simmons, Mr. Swift

72. Farm Machinery.—Machines for the farm, their operation, efficiency, and adjustment. Demonstrations and tests are made with various machines and implements. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Simmons, Mr. Swift

74. Farm Power.—Application of power to farm operations; operation and care of various forms of motors used for agricultural purposes. Animal power and other motor powers, The gas engine is studied in the laboratory. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Simmons, Mr. Swift

81, 82. Problems in Agricultural Engineering.—Credit arranged. Mr. Simmons

Crops

11. Field Crops.—Important cereal, grass, forage, and root crops, and their adaptation to systems of rotation, culture, and uses, with special reference to New England conditions. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* Mr. Snyder

13. Field Crops. Seed and Grain Identification.—Improvement by grading; testing; selecting; and preparing seed for planting. A collection of weeds and their seeds are required. †*Four hours a week. Credit, two hours.* Mr. Snyder

14. Field Crops. Corn.—Production of corn and care and marketing of the crop. Types and varieties of both field and sweet corn are considered. Prerequisite, Course 11. Classroom, *one hour a week;* laboratory, †*two hours a week. Credit, two hours.* Mr. Snyder

15. Field Crops. Tubers.—Production, storage, and marketing of potatoes. Prerequisite, Course 11. Classroom, *one hour a week;* laboratory, *†two hours a week. Credit, two hours.* Mr. Snyder

16. Field Crops. Forage Crops.—Forage plants, roots, grasses, soiling crops; and hay crop production and grading for market. Special consideration is given to their adaptation to local conditions. Prerequisite, Course 11. Classroom, *one hour a week;* laboratory, *†two hours a week. Credit, two hours.* Mr. Snyder

20. Field Crops. Potato Diseases.—Identification of all the important potato diseases, their effect upon yield and prevention methods. For students who have completed Course 15. Prerequisites, Agronomy 15, Botany 53 and 56. Classroom, *one hour a week;* laboratory, *†two hours a week. Credit, two hours.* Mr. Snyder

60. Field Crops. Crop Improvement.—Principles and methods involved in field crop improvement. Work of experiment stations in this country and abroad is reviewed. Prerequisites, Agronomy 14 and 16, Botany 45, 53, and 56. *Two hours a week. Credit, two hours.* Mr. Snyder

62, 63. Advanced Field Crops.—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. Credit, two or more hours.* Mr. Snyder

65, 66. Seminar.—Study of recent literature, problems, and experiments pertaining to soils, crops, and agricultural engineering. For majors in Agronomy. Each student is trained to prepare outlines and full drafts of various subjects, and to speak from outline. *One hour a week. Credit, one hour.* Mr. Simmons, Mr. Swift, Mr. Snyder

67, 68. Thesis.—*Three hours a week. Credit, three hours.*

ANIMAL INDUSTRY

Professor Corbett; Professor Dorsey; Associate Professor Smyth; Assistant Professor Gardner; Assistant Professor Hall; Assistant Professor Witter; Mr. Blanchard

Animal Husbandry

2. Types and Breeds of Farm Animals.—Types and breeds of farm animals. History, development, and characteristics of farm animals. The

laboratory acquaints the student with the use of score cards, comparative judging, and the selection of breeding stock. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* Mr. Corbett, Mr. Hall

3. Care, Feed, and Management of Live Stock.—Selection, breeding, growing, and maintenance of horses, cattle, sheep, and swine. Consideration is given to general principles of nutrition as applied to live stock, composition of feed stuffs, comparison and use of feeding standards, and calculating rations. Prerequisite, Course 2. Classroom, *three hours a week;* laboratory, †*two hours a week. Credit, four hours.* Mr. Corbett, Mr. Hall

5. Anatomy of Domestic Animals.—A general course in comparative anatomy of the domestic animals and birds. Emphasis is placed on the important histological features, and those parts of the body involved in the common diseases. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* Mr. Witter

6. Physiology of Domestic Animals.—Principles of physiology as applied to domestic animals including birds. Special emphasis is placed on comparative features, especially of the circulatory, respiratory, digestive, and uro-genital systems. *Three hours a week. Credit, three hours.* Mr. Witter

7. Animal Hygiene.—Principles of hygiene and sanitation applied to prevention and control of common diseases of domestic animals. Special attention given to the fundamentals of disease processes. Prerequisite, Course 6. *Two hours a week. Credit, two hours.* Mr. Witter

8. Animal Pathology.—A study of infectious and parasitic diseases of domestic animals including the principles of immunology as applied to biological treatment and prevention. Prerequisite, Course 7. *Two hours a week. Credit, two hours.* Mr. Witter

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 show ring and market. In so far as it is practicable, visits will be made to live-stock farms. †*Two hours a week. Credit, one hour.* Mr. Corbett, Mr. Hall

54. Advanced Live Stock Feeding and Management.—Nutrition and feeding experiments, as well as the methods and practices of the most successful feeders in production of milk, meat, and rearing of horses. Prerequisite, Course 3. *Two hours a week. Credit, two hours.* Mr. Corbett

55. Advanced Live Stock Feeding.—A continuation of Course 54. *Two hours a week. Credit, two hours.* Mr. Corbett

57, 58. Problems in Animal Husbandry.—Credit arranged.

Mr. Corbett

60. Advanced Animal Breeding.—Principles and theories of breeding as applied to the live stock industry; study of pedigrees and records using the breed herd books; and economic study of the generative systems of domestic animals. Prerequisite, Course 3. Classroom, *one hour a week;* laboratory, †*two hours a week. Credit two hours.* Mr. Corbett, Mr. Hall

63, 64. Seminar,—Preparation and presentation of papers dealing with topics in the field of Animal Husbandry. *One hour a week. Credit, one hour.* Mr. Corbett, Mr. Hall

65. Advanced Animal Industry.—Market classes and types; pasture and feed lot management; and farm and packing house methods of preparing animal products for the market. Prerequisite, Course 3. *Two hours a week. Credit, two hours.* Mr. Corbett

Dairy Husbandry

1. General Dairying.—Milk, its secretion, composition, properties, pasteurization, and separation. Dairy practices in producing and handling milk and cream. Dairy equipment; use of common dairy machinery. Testing dairy products for fat (Babcock method), acidity, total solids, and common adulterations. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* Mr. Dorsey, Mr. Blanchard

2. Butter Making.—Creamery butter industry. Starter making, cream ripening, churning, and preparing butter for market. Prerequisite, Course 1. Classroom, *one hour a week;* laboratory, †*four hours a week. Credit, three hours.* Mr. Dorsey

3. Cheese Making.—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 1. Classroom, *two hours a week;* laboratory, **six hours a week. Credit, four hours.* Mr. Dorsey

4. Condensed Milk.—Manufacture of unsweetened and sweetened condensed milk, and milk powder. Sanitary control of milk supply, factory methods, defects in products, and economic phases of the industry. Prerequisite, Course 1. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* Mr. Dorsey

5. Market Milk.—The market milk industry from standpoints of production, supply, sanitary control, transportation, processing, delivery, organization, and economic aspects. Prerequisite, Course 1. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* Mr. Dorsey

6. Judging Milk and Milk Products.—Study and practice of methods employed in scoring and judging milk and milk products. Prerequisite, Course 1. Laboratory, †*two hours a week. Credit, one hour.*

Mr. Blanchard

51. Dairy Technology.—Milk products and by-products, methods of manufacture and processing, and scrutiny of recent literature relating to advances in dairy technology. Lectures, and assigned readings. Prerequisite, Course 1. *Three hours a week. Credit, three hours.* Mr. Dorsey

53, 54. Problems in Dairy Husbandry.—Credit arranged.

Mr. Dorsey

58. Ice Cream Making.—Manufacture of ice cream and ices. Prerequisite, Course 51. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* Mr. Dorsey

63, 64. Advanced Dairy Products Testing.—Various methods of testing dairy products and the practical application of such new tests as may be developed from time to time. Special attention is given to the Mojonnier test. Prerequisite, Course 51. Open to senior major students in the Department of Animal Industry and to graduate students. Laboratory, †*two or four hours a week. Credit, one or two hours.* Mr. Dorsey

66. Dairy Machinery.—Milk and milk products machinery, accessory machinery, and plant layout. Prerequisite, Course 51. Laboratory, †*two hours a week. Credit, one hour.* Mr. Dorsey

Poultry Husbandry

1. Types, Breeds, and Management of Poultry.—Origin and development of types, breeds, and varieties of fowl; general care, feed, and management of farm poultry; and marketing of poultry products. Laboratory exercises include practice in poultry management, poultry judging, and preparation of poultry products for market. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* Mr. Smyth

2. Poultry Breeding.—Principles of breeding as applied to poultry; inheritance of egg productivity; systems of breeding; and study of pedigrees and breeding results. Some time is given to a study of methods used by successful poultry breeders. Prerequisite, Course 1. Classroom, *two hours a week. Credit, two hours.* Mr. Smyth

3. Exhibition and Production Poultry Judging.—Selection and mating of fancy and utility poultry. Laboratory practice in judging fancy

and utility poultry, and a study of the standard requirements of the breeds. Prerequisite, Course 1. Classroom, *one hour a week;* laboratory, †*two hours a week. Credit, two hours.* MR. GARDNER

4. INCUBATION AND BROODING.—Principles of incubation and brooding. Laboratory practice in incubator and brooder management. Prerequisite, Course 1. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* MR. SMYTH

5. POULTRY FEEDING.—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. Prerequisite, Course 1. *Two hours a week. Credit, two hours.* MR. GARDNER

6. POULTRY FARM MANAGEMENT.—The business of poultry farming; systems and operations in use on large poultry farms; planning of specialized poultry farms. In so far as is practicable, visits will be made to poultry farms. Prerequisites, Courses 1, 2, 3, and 5. Classroom, *one hour a week;* laboratory, †*two hours a week.* MR. GARDNER

7. POULTRY LITERATURE.—A study of literature giving the results of experimental work with poultry. Prerequisites, Courses 1, 2, and 3. *Two hours a week.* MR. SMYTH

8. POULTRY DISEASES.—Principles of hygiene and sanitation applied to the prevention and control of the diseases of poultry, including a detailed consideration of the pathological processes involved in the common diseases. *Two hours a week. Credit, two hours.* MR. WITTER

51, 52. PROBLEMS IN POULTRY HUSBANDRY.—Credit arranged. MR. SMYTH

BACTERIOLOGY

PROFESSOR HITCHNER; MR. LEWIS

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

2. BACTERIOLOGY.—Similar to Course 1. Offered for students in the College of Technology and others who may elect it. Special emphasis is placed upon bacteriology of water and sewage. Prerequisite, Course 3. †*Six hours a week. Credit, three hours.* MR. HITCHNER, MR. LEWIS

3. Bacteriology.—A lecture course open to all students. It must be elected by students taking Course 1. Subjects considered include the history of bacteriology; classification and biological characteristics of bacteria; bacteria in air, water, soil, and dairy products; relation of bacteria to health and disease; and immunity. *Two hours a week. Credit, two hours.*

Mr. Hitchner

5. Bacteriology.—An abbreviated laboratory course in general bacteriology. Demonstrations by the instructor and experiments conducted by the students in which many of the changes produced by bacteria in every day life are considered. Practical demonstrations of the relation of bacteria to disease, sanitation, food handling, and other economic phases are given. The aim is to develop appreciation of bacteriological technic. Course 3 must be taken in conjunction. †*Two hours a week. Credit, one hour.*

Mr. Hitchner

52. Bacteriology.—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. Classroom, *one hour a week;* laboratory, †*four hours a week. Credit, three hours.* Mr. Hitchner

54. Bacteriology (Dairy).—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; and study of effect of separators, clarifiers, coolers, etc., on the bacterial content of milk and cream. Prerequisites, Courses 1 or 2, and 3. Classroom, *one hour a week;* laboratory, †*four hours a week. Credit ,three hours.* Mr. Hitchner

55. Bacteriology.—An experimental consideration of ammonification, nitrification, and dentrification in the soil; relation of bacteria to soil fertility; and symbiosis. Laboratory, †*four or six hours a week. Credit, two or three hours.* Mr. Hitchner

57. Bacteriology.—Lectures and reference work upon various problems relating to bacteria and soil fertility; discussion of ammonification, nitrification, and dentrification in the soil; and consideration of symbiosis. Open only to students taking Course 55. *Two hours a week. Credit, two hours.*

Mr. Hitchner

61, 62. Bacteriology Seminar.—Preparation and presentation of papers dealing with current researches and developments in the field of bacteriology. *One hour a week. Credit, one hour.* Mr. Hitchner

101, 102. Bacteriology.—A laboratory course for students desiring 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 are arranged to suit individual students. *Credit, arranged.*

MR. HITCHNER

BIOLOGICAL AND AGRICULTURAL CHEMISTRY

*PROFESSOR SMITH; ASSISTANT PROFESSOR FREEMAN; MR. BOWEN

Biochemistry

1. ORGANIC CHEMISTRY.—For agricultural students. A study of the aliphatic compounds; hydrocarbons, alcohols, acids, amines, amides, etc., and brief resumé of the more important aromatic compounds. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.*

MR. FREEMAN

2. BIOCHEMISTRY.—Plant biochemistry, including a study of the physico-chemical reactions of plants. A detailed study of carbohydrates, fats, and proteins; glucosides; and enzymes. Prerequisite, Course 1. Classroom, *three hours a week;* laboratory, †*four hours a week. Credit, five hours.*

MR. FREEMAN

3. ORGANIC CHEMISTRY.—The aliphatic hydrocarbons, alcohols, acids, amines, amides, etc.; important aromatic compounds; and carbohydrates, fats and proteins. Classroom, *three hours a week;* laboratory, †*two hours a week. Credit, four hours.* MR. FREEMAN

4. BIOCHEMISTRY.—Physico-chemical reactions of plants and animals; chemistry of digestion; respiration; and blood and lymph. Prerequisite, Course 3. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, three hours.* MR. SMITH

8. AGRICULTURAL CHEMISTRY.—Chemistry of the soil elements; colloidal condition and its effect upon the soil; chemical relationship of fertilizing constituents; and synthetic methods of producing fertilizing ingredients. Prerequisite, Course 1. *Two hours a week. Credit, two hours.* MR. SMITH

9. BIOCHEMISTRY.—Animal biochemistry. Composition of the animal body; chemistry of digestion; assimilation and metabolism of foods; chemistry of blood and lymph; and elimination of waste product. Prerequisite, Course 2. *Two hours a week. Credit, two hours.* MR. SMITH

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*On leave of absence, 1932-33.

51. Biochemistry.—Detailed study of carbohydrates, fats and proteins; nature of enzymes and their effect upon food materials; chemical changes involved in digestion, assimilation and absorption of foods; respiration; chemistry of the blood, including clinical methods of analysis; and elimination of waste material from the animal body. Prerequisite, Courses 1 or 3. *Three hours a week. Credit, three hours.* Mr. Smith

53. Food Analysis.—Quantitative analysis of some common food products. The complete analysis of milk, butter, bread, cereal breakfast foods, and dried fish; carbon dioxide in baking powder; vinegar; and sugars in molasses and karo. Prerequisite, Course 3. Given in 1932-33 and alternate years. Laboratory, †*four hours a week. Credit, two hours.* Mr. Smith

55. Textile Chemistry.—Composition and properties of textile fibers; methods of scouring, bleaching, dyeing, and finishing fibers; qualitative analysis of finishing material; and methods of testing composition of fabrics. Prerequisite, Course 3. Given in 1933-34 and alternate years. Laboratory, †*four hours a week. Credit, two hours.* Mr. Smith

56. Agricultural Analysis.—Designed to give the student a working knowledge of methods employed in quantitative analysis of fertilizers and the more common agricultural products. Open only to juniors and seniors in agriculture. Prerequisite, Course 8. Laboratory, †*four hours a week. Credit, two hours.* Mr. Smith

57. Biological Colloids.—An introduction to colloidal chemistry with application and significance in biological systems. Open to junior, senior, and graduate students. Prerequisites, Courses 1 and 2, or 3 and 4. *Three hours a week. Credit, three hours.* Mr. Freeman

61. Advanced Biochemistry.—A complete consideration of the chemistry of carbohydrates, fats, and proteins with special reference to recent advances in these fields; methods used in biochemical research; special problems in plant and animal biochemistry. Prerequisite, Course 2 or 4. Classroom, *three hours a week;* laboratory, †*four hours a week. Credit, five hours.* Mr. Smith

62. Advanced Biochemistry.—A continuation of Course 61, with special reference to literature devoted to the subject matter. Prerequisite, Course 61. *Three hours a week. Credit, three hours.* Mr. Freeman

64. Biochemical Laboratory Methods.—Methods used in the biochemical laboratory for testing carbohydrates, fats, amino acids, proteins, enzymes; studies of the colloidal properties of biochemical material; H-Ion concentration measurement methods; and individual problems dealing with various phases of biochemical investigations. Prerequisite, Course 2 or 4. Laboratory, †*six hours a week. Credit, three hours.* Mr. Freeman

101, 102. Biochemical Research.—Problems dealing with various phases of biological or agricultural chemistry. Special problems may be selected by the student under direction and advice of the department. A comprehensive written summary is required. Open only to senior and graduate students. Time and credit arranged. Mr. Smith, Mr. Freeman

Geology

5. Geology.—The earth's geologic history and development, with especial attention to dynamical, structural, and physiographical geology. *Three hours a week. Credit, three hours.* Mr. Freeman

BOTANY AND ENTOMOLOGY

Professor Steinmetz; Assistant Professor Dirks; Assistant Professor Steinbauer; Assistant Professor Hyland; Mr. Ogden

Botany

2. General Botany.—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. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* Mr. Steinmetz and Assistants

29. General Cryptogamic Botany.—Orders of spore bearing plants, their structure, development, and economic importance. Given in alternate years. Prerequisites, Course 2 and the consent of the instructor. Classroom, *one hour a week;* laboratory and field, †*four hours a week. Credit, three hours.* Mr. Steinbauer

30. Plant Ecology.—A study of the environmental factors determining adaptations and distribution of plant life. Prerequisite, Course 2. Classroom, *one hour a week;* laboratory, †*two hours a week. Credit, two hours.* Mr. Steinbauer

32. Plant Physiology.—For students in Forestry. Prerequisites, Course 2 and one year of chemistry. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* Mr. Steinbauer

33. Forest Botany (Dendrology).—Lectures, laboratory, and field work on characteristics, habits, classification, and relationships of trees and

native shrubs of North America. Prerequisite, Course 2. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.*

MR. HYLAND

34. FOREST BOTANY (PHYSIOGRAPHY).—A systematic study of the trees of North America; a comprehensive study of range, distribution, soil requirements, and commercial importance of timber trees of the United States; and survey of forest areas of the world. Prerequisite, Course 33. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.*

MR. HYLAND

35. PLANT ANATOMY.—Tissues of leaves, roots, and stems of herbaceous and woody plants. Prerequisite, Course 2. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.*

MR. STEINMETZ, MR. HYLAND

42. FOREST PATHOLOGY.—Principles of plant diseases, as applied to seedlings, nursery stock, and forest trees; destruction of timber by fungi; and methods of combating plant diseases and preserving wood products. Required of seniors in Forestry. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* MR. STEINMETZ

43. WOOD IDENTIFICATION.—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. Credit, one hour.* MR. HYLAND

45. GENERAL GENETICS.—Principles of genetics. Prerequisites, Zoology 1 and Course 2. Open to juniors and seniors. *Three hours a week. Credit, three hours.* MR. STEINMETZ

46. GENETICS LABORATORY.—Experiments and problems on kinds, causes, measurements, and inheritance of variations in plants and animals. Prerequisite, Course 45. Laboratory, †*four hours a week. Credit, two hours.*

MR. STEINMETZ

53. PLANT PHYSIOLOGY.—Classroom and laboratory work on the physiology of plants. Prerequisites, Course 2 and one year of chemistry. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit four hours.*

MR. STEINBAUER

56. PLANT PATHOLOGY.—Principles of plant diseases; their nature and causes; basis for control. Prerequisite, Course 2. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* MR. STEINMETZ

57. TAXONOMY OF VASCULAR PLANTS.—Characteristics, identification, classification, and systematic position of representative species of flowering plants. Given in alternate years. Prerequisites, Course 2 and the consent

of the instructor. Classroom, *two hours a week;* laboratory and field, †*four hours a week.* Mr. Steinmetz

Entomology

21. General Entomology.—Fundamental facts and principles of insect life, particularly in relation to agriculture; principles of insect control; characteristics of the orders and families of insects, with a study of their habits, life histories, and relations to plants and animals. An insect collection is required. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* Mr. Dirks

22. Forest Entomology.—Principles of insect life with special reference to shade and forest trees. Structure, metamorphosis, life histories, injuries, classification, and methods of control are considered. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* Mr. Dirks

40. Apiculture.—A practical course in the care of bees in relation to horticulture and general farming. The honeybee, its activities and habits; races of bees, diseases and enemies, and the production and marketing of honey. Laboratory exercises include manipulations of bees and the making of hive equipment. Classroom, *one hour a week;* laboratory, †*two hours a week. Credit, two hours.* Given in 1934-35. Mr. Dirks

48. Advanced Forest Entomology.—An intensive study of the important shade trees, forest and forest products; insects, their life histories and habits, injuries and methods of control. Prerequisite, Course 21 or 22. Classroom, *one hour a week;* laboratory, †*two hours a week. Credit, two hours.* Given in 1933-34. Mr. Dirks

49. Economic Entomology.—An intensive study of the important insects of the orchard, garden, and farm; their life histories and habits, injuries, and methods of control. Prerequisite, Course 21 or 22. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* Mr. Dirks

50. Morphology of Insects.—An introduction to the principles of insect morphology. The factors determining form and adaptations of typical insects. Prerequisite, Course 21 or 22. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.* Mr. Dirks

51. Taxonomy of Insects, I.—Methods of collecting, preparing, and mounting insects; principles of insect classification; practice in use of keys for the identification of common insects. Prerequisite, Course 21 or 22. Classroom, *one hour a week;* laboratory, †*four hours a week. Credit, three hours.* Mr. Dirks

52. Taxonomy of Insects, II.—Principles of wing venation; classification of the lepidoptera, diptera, and hymenoptera. Prerequisite, Course 51. Classroom, *one hour a week;* laboratory, †*four hours a week. Credit, three hours.*

Problem Courses

47, 48. Problems in Botany or Entomology.—Open to juniors and seniors who have special interest and qualification in botany or entomology. The approval of the head of the department and the written consent of the instructor concerned must be obtained before registering for this work. Credit to be arranged in each case. The Departmental Staff

103, 104. Problems in Genetics. Mr. Steinmetz

105, 106. Problems in Entomology. Mr. Dirks

107, 108. Problems in Botany. Mr. Steinmetz

FORESTRY

Professor Briscoe; Assistant Professor Chapman; Assistant Professor Ashman

1. Economics of Forestry.—Importance and scope of the subject; influence of forests on conservation and distribution of water; influence on soils, topography, and public health; relation to agriculture, stock raising, mining, railroads, manufactures, and industries in general; and character, extent, and distribution of forest resources, national, state, and private. Required of freshmen majoring in Forestry, and open to all other students. *Two hours a week. Credit, two hours.* Mr. Briscoe

2. Woodlot Forestry.—General principles of forestry, with special reference and application to farm woodlands, particularly in this region. Lectures and textbook work in elementary systems of cutting, estimating, protection, and reforestation. Especially for agricultural students. Open to all students. *Two hours a week. Credit, two hours.* Mr. Chapman

3. Lumber Industry.—For seniors in Forestry. Milling and marketing problems of the lumber industry in America. First half of semester. *Four hours a week. Credit, two hours.* Mr. Ashman

4. Wood Preservation.—Durability and seasoning of native woods; preservatives in commercial use; and methods of operation and equipment

of preserving plants. Special attention given to posts, ties, poles, paving-blocks, and structural timbers. Prerequisites, Botany 33 and 34. First half of semester. *Two hours a week. Credit, one hour.* MR. CHAPMAN

5. HISTORY OF FORESTRY.—Development of forestry in European countries and in the United States. First half of semester. *Two hours a week. Credit, one hour.* MR. BRISCOE

6. FOREST MENSURATION.—A continuation of Course 11. Age, growth, taper, form-factors, and yield and volume tables. *Two hours a week. Credit, two hours.* MR. CHAPMAN

8. FOREST MENSURATION FIELD WORK.—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; and construction of volume table. **Six hours a week. Credit, two hours.* MR. CHAPMAN

9. FOREST PRODUCTS.—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. Credit, one hour.* 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. Credit, one hour.* MR. CHAPMAN

11. FOREST MENSURATION.—Lectures and recitations. 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. Credit, two hours.* MR. CHAPMAN

12. PRACTICE OF FORESTRY.—Applied systems of silviculture and management considered in relation to commercially important species and types of forest in the United States; the application of thinnings; methods of natural reproduction; silvicultural methods. *Two hours a week. Credit, two hours.* MR. BRISCOE

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

14. NURSERY PRACTICE.—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. Credit, two hours.* 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, Botany 33 and 34. First half of semester. *Two hours a week. Credit, one hour.* Mr. Briscoe

16. Silviculture.—A continuation of Course 15, with special attention to seeding and planting in the practice of forestry; methods of artificial reproduction of forests; planting and forest nursery methods. *Two hours a week. Credit, two hours.* Mr. Briscoe

17. Silviculture Field Work.—Assigned problems in connection with Course 15. Studies of tolerance. Special studies and practical work in the forest; preparation of a type map and detailed silvicultural report. First half of semester. **Six hours a week. Credit, two hours.* Mr. Briscoe

18. Advanced Nursery Practice.—Additional field work in nursery and actual forest planting operations. For those who are taking Forestry 14, and show special adaptability for the work. Second half semester. †*Eight hours a week. Credit, two hours.* Mr. Briscoe

19. Lumbering.—The lumber industry in the United States considered from the economic standpoint; an account of logging methods in different regions. Textbooks and lectures. Forestry seniors only. First half of semester. *Two hours a week. Credit, one hour.* Mr. Ashman

20. Forest Finance.—Business principles applied to forest management. Forest valuation; theory of the normal forest; calculations for sustained yield and continuous revenue from forest resources; forms or accounts and cost keeping; and preparation of reports for Federal income tax on timber lands. Forestry seniors only. *Two hours a week. Credit, two hours.* Mr. Briscoe

21. Lumbering Field Work.—Taken in connection with Course 19. Inspection of operation and layout of pulp mills, saw mills, box factories, novelty mills and others, with detailed study, charts, and reports on methods of handling, storage, and transportation of logs, pulpwood, and raw materials. First half of semester. **Six hours a week. Credit, one hour.* Mr. Chapman

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; and laws of the Federal

government and the several states concerning forests and forestry. Forestry seniors only. *Two hours a week. Credit, two hours.* MR. BRISCOE

23, 24. CURRENT FORESTRY LITERATURE.—Review of periodicals, books, and current forestry literature; and preparation of a card index under subject and author headings. Forestry seniors only. *One hour a week. Credit, one hour.* 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.

30. WOOD IDENTIFICATION AND USES.—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; and their commercial production. Prerequisites, Botany 33 and 34. Classroom, *two hours a week* during the whole semester; laboratory, *two hours a week* during the first half of semester. *Credit, two hours.* MR. ASHMAN

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

34. PREPARATION AND DRAFTING OF MAPS.—Primarily for sophomore students in Forestry. Instruction in the correct drafting, preparation, and coloring of maps. The use of accepted conventional signs and symbols in mapping, and preparation of maps for reports and summaries of field surveys. Prerequisites, Drafting 1 and 2. **Three hours a week. Credit, one hour.* MR. CHAPMAN

36. FOREST RECREATION.—Recreation from the viewpoint of the forester. Recreation planning in state and national forests and parks and on private estates. Brief consideration of game management in forestry. Summer camp administration. Forestry juniors and seniors only. *One hour a week. Credit, one hour.* MR. ASHMAN

Courses in Camp

31. LOGGING ENGINEERING.—Practical logging as applied to a typical spruce pulp-wood operation in Maine. **Sixteen hours a week,* second half semester. *Credit, three hours.* MR. ASHMAN

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

35. Cruising and Mapping.—Making topographic maps and detailed estimates of standing timber. Methods of locating trails, highways, 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. *Credit, three hours.*

Mr. Ashman

HOME ECONOMICS

Professor Greene; Professor Sweetman; Assistant Professor Musgrave; Assistant Professor Heye; Miss Osgood; Mrs. Stewart; Miss Gould

1. Textiles and Clothing.—Fibers, fabrics, and the hygienic, economic, and social problems involved in selection of ready-made clothing. The laboratory work consists of the making of garments, involving drafting and design, the selection of materials, and construction techniques. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.*

Miss Musgrave, Miss Osgood, Miss Lancaster

2. Textiles and Clothing.—A continuation of Course 1, with field trips in clothing selection. Classroom, *one hour a week;* laboratory, †*six hours a week. Credit, four hours.*

Miss Musgrave, Miss Osgood, Miss Lancaster

3. Design.—A first course in art expression. 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. Classroom, *one hour a week;* laboratory, †*four hours a week. Credit, three hours.*

Miss Musgrave

4. Applied Design.—Application of design principles to problems in textiles including batik, tie dyeing, applique, embroidery, and hand weaving. Prerequisite, Course 3. Laboratory, †*four hours a week. Credit, two hours.*

Miss Musgrave

5. Foods.—Nutritive value, principles of preparation, and buying of foods. Laboratory work in preparation of various types of foods. Parallel, Biochemistry 3. Classroom, *two hours a week;* laboratory, †*four hours a week. Credit, four hours.*

Mrs. Sweetman, Miss Osgood

6. Foods.—A continuation of Course 5, including marketing studies, with field trips, and the planning and serving of meals. Classroom, *one hour*

a week; laboratory, †*six hours a week. Credit, four hours.*

MRS. SWEETMAN, MISS OSGOOD

8. PROFESSIONAL LECTURE.—History and scope of the Home Economics movement in relation to general and vocational education. A study of the vocations open to Home Economics trained women, and of preparation and personal qualities essential to success in each. The major aim of the course is to aid the student in the selection of a vocation and in shaping her education to answer her vocational needs as well as to contribute to her individual development. *One hour a week. Credit, one hour.*

MEMBERS OF THE DEPARTMENTAL STAFF AND SPECIAL LECTURERS

10. SANITATION AND PUBLIC HEALTH.—Health of the individual in relation to family and community responsibility. Includes housing problems such as ventilation, plumbing, water supply, and sewage disposal; school-health problems; industrial hygiene; and a study of communicable diseases with emphasis on methods of control. *Three hours a week. Credit, three hours.*

MISS GREENE

11. HOUSEHOLD MANAGEMENT.—Homemaking as a profession. Standards and objectives for household management in the provision of health, financial solvency, contentment, and development of family members. Techniques of management of time, energy, and money to contribute to securing the values of family life. Selection of equipment. *Four hours a week. Credit, four hours.*

MISS GREENE, MISS HEYE

14. THE PRE-SCHOOL CHILD.—A study of conditions most favorable to optimum growth and development of children. Influence of physical environment and home relationships upon the physical, social, and mental development of children. Existing tendencies and problems. Effects of new social adjustments reflected in the home upon the welfare of children. Opportunity for observing and guiding activities of pre-school children is provided in a play school conducted the second half of the semester. Classroom and laboratory as arranged. *Credit, three hours.*

MISS HEYE

15. MILLINERY.—Principles of design and color are applied to millinery. A consideration of materials suitable for various purposes and the making of frames, coverings, and hats in the prevailing fashion. Open only to juniors and seniors. Laboratory, †*two hours a week. Credit, one hour.*

MISS MUSGRAVE

17. THE HOUSE.—The importance of the house as a contributing factor in satisfying home life for the group and the individual. Standards for physical well-being, aesthetic satisfaction, social enjoyment, convenience, privacy and comfort, in relation to income. Selection of designs, materials, and fin-

ishes for houses and their furnishings. Field trips required. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.*

MISS HEYE

21, 22. HOUSEHOLD ADMINISTRATION.—A senior laboratory course aiming to develop managerial ability by coördinating technical and laboratory training in conditions approximating home life. Students organize and execute activities of the Home Management House in which they live. Activities include marketing, the planning, preparing, and serving of meals, care of a young child, budgeting and accounting of finances, care of the house, and social management. *Credit, two or three hours.* MISS HEYE

25. ECONOMICS OF THE HOUSEHOLD.—The family as a unit for consumption including principles of food selection; clothing; shelter; and the use of the budget. Open to Arts and Sciences students, above freshman rank, only. *Three hours a week. Credit, three hours.* MISS GREENE, MISS HEYE

26. THE CONTEMPORARY HOME.—Functions of the home as an environment for human development; factors involved in successful homemaking; and the child in the home, his development and welfare. Open to Arts and Sciences students, above freshman rank, only. *Three hours a week. Credit, three hours.* MISS HEYE

51. ADVANCED CLOTHING.—Economics, design, and color in relation to dress. In the laboratory designing by modeling on the dress form, alteration and adaptation of commercial patterns, and selection of materials suitable for the individual, are studied with the technique of making and fitting silk and wool dresses. Prerequisites, Courses 1, 2, and 3. Classroom, *one hour a week;* laboratory, †*four hours a week. Credit, three hours.*

MISS MUSGRAVE, MISS OSGOOD

52. ADVANCED CLOTHING AND COSTUME DESIGN.—A continuation of Course 51. Problems in tailoring of coats, and construction of children's clothing. Two hours a week are used in study of the special application of design principles of line, color, dark and light, and texture, to costumes of the individual. Laboratory, †*six hours a week. Credit, three hours.*

MISS MUSGRAVE, MISS OSGOOD

53. ADVANCED FOODS.—Application of biochemical methods in development of principles of food preparation. Prerequisites, Courses 5 and 6, and Biochemistry 4. *Credit as arranged, two or three hours.* MRS. SWEETMAN

56. HOME ECONOMICS EDUCATION.—Principles of teaching as applied to junior and senior high-school home economics. Aims, selection of subject matter, and choice of method as exemplified in current literature, courses of study, and textbooks. Organization problems; equipment; budget; and class-

room management are included. *Three hours a week. Credit, three hours.*
MISS GREENE

57, 58. THESIS.—Undergraduate thesis in any one of the fields of home economics. *Credit arranged.* MEMBERS OF THE DEPARTMENTAL STAFF

59, 60, a-j. SPECIAL PROBLEMS.—Individual problems in the various fields of home economics, arranged to enable students to extend their command of subject matter, or develop techniques according to individual interests and needs. A student may register more than once for the course, but for no more than three hours in any one subdivision. *Credit, one to three hours,* in each subdivision.

59, 60a. NUTRITION.
59, 60b. FOODS.
59, 60c. CLOTHING AND TEXTILES.
59, 60d. DESIGN.
59, 60e. HISTORY OF COSTUME.
59, 60f. HOUSE PLANNING AND DECORATION.
59, 60g. CHILD DEVELOPMENT.
59, 60h. HOUSEHOLD MANAGEMENT.
59, 60i. HOME ECONOMICS EDUCATION.
59, 60j. INSTITUTIONAL MANAGEMENT.

MEMBERS OF THE DEPARTMENTAL STAFF

61. HISTORY OF COSTUME.—A survey of the development of costume of men and women from the peoples of antiquity, through the various periods of European history to the present time. Lectures, readings, written reports, and collection and classifying of illustrations. *One hour a week. Credit, one hour.*
MISS MUSGRAVE

63. NUTRITION. Principles involved in normal human nutrition at all ages. Prerequisite, Biochemistry 3 or Chemistry 51. *Two hours a week. Credit, two hours.*
MRS. SWEETMAN

65, 66. DIETETICS.—Calculation and preparation of dietaries. Parallel or prerequisite, Course 63. Laboratory, †*four hours a week. Credit, two hours.*
MISS OSGOOD

71, 72. SUPERVISED TEACHING.—Directed teaching in home economics. Students teach classes in the upper grades and high school at Brewer. *Credit, three hours.*
MISS GOULD

81, 82. INSTITUTIONAL MANAGEMENT (FOODS).—A study of the problems involved in the feeding of groups on a commercial basis, such as menu planning, time budgeting, the application of food preparation principles to large quantity cookery, use of power equipment, quality standards. A faculty

lunchroom in Merrill Hall is operated as a laboratory for the course. Prerequisites, Courses 5, 6, and Economics 1b. Classroom, *one hour a week;* laboratory, **six hours. Credit, three hours.* MISS LANCASTER

83, 84. ADVANCED INSTITUTIONAL MANAGEMENT (FOODS).—A continuation of Course 81, 82, with emphasis on management and administrative problems such as selection of equipment, cost studies, and personnel. Laboratory may be taken without lecture. Prerequisite, Course 81, 82. Classroom, *two hours a week;* laboratory, **six hours. Credit, four hours.*
MISS LANCASTER

102. ADVANCED NUTRITION.—Methods of research in human nutrition and recent advances in the field. Prerequisite, Course 54. *Credit as arranged, two or three hours.* MRS. SWEETMAN

HORTICULTURE

PROFESSOR WARING; MR. CLAPP; MR. RILEY

Pomology

1. COMMERCIAL FRUIT HANDLING.—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. Classroom, *two hours a week;* laboratory, *†two hours a week. Credit, three hours.*
MR. WARING

2. TREE FRUIT PRODUCTION.—Underlying principles and practical methods involved in planting and subsequent care of hardy orchard fruits, leading to the production of profitable crops. Classroom, *two hours a week;* laboratory, *†two hours a week. Credit, three hours.* MR. WARING

3. SYSTEMATIC POMOLOGY.—Important groups of tree and small fruits, together with practice in identification and judging of varieties. A trip to important orchard districts or to the state fruit show may be arranged. Classroom, *two hours a week;* laboratory, *†two hours a week. Credit, three hours.* MR. WARING

10. SMALL FRUIT PRODUCTION.—Selection of varieties, and methods recommended for commercial production and handling of such fruits as strawberries, grapes, raspberries, blackberries, and blueberries. *Three hours a week. Credit, three hours.* MR. RILEY

56. Principles of Pomology.—A course supplementary to Course 2, with emphasis on modern methods of orchard management, including disease and insect control. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Waring

Vegetable Gardening

20. Vegetable Gardening.—The best commercial practices; and the results of recent experimentation as applied to vegetable gardening. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* Mr. Riley

21. Vegetable Crops.—Includes harvesting, marketing, and systematic study of types and varieties of vegetables; also storage and care of vegetables for seed production. Prerequisite, Course 20. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* Mr. Riley

55. Vegetable Forcing.—Culture of vegetables under glass, types of greenhouses, soil sterilization, fumigation, special fertility problems, and marketing. Prerequisite, Course 20. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Riley

Floriculture and Ornamental Horticulture

5. Landscape Gardening.—Principles of landscape design and materials used in executing landscape plans. Special attention is given to the improvement of home grounds. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* Mr. Clapp

7. Commercial Floriculture.—Principles underlying the production of flowers under glass; special consideration of methods for important cut-flower crops. One or more half-day trips in the Bangor area may be arranged. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* Mr. Clapp

8. General Floriculture.—The culture and care of garden flowers and house plants, and the use of flowers in the home. Open to any student. Classroom, *two hours a week;* laboratory, †*two hours a week. Credit, three hours.* Mr. Clapp

54. Landscape Gardening.—A continuation of Course 5 treating the development of irregular-surfaced areas, the farmstead, and large tracts; the design of recreational areas; and the professional phases of landscape archi-

tecture. Classroom, *two hours a week;* laboratory, **three hours a week. Credit, three hours.* Mr. Clapp

General Courses

4. Plant Propagation.—Methods of propagating plants. Current literature on propagation is reviewed. A report on methods applicable to a particular branch of horticulture is required. Laboratory, †*four hours a week. Credit, two hours.* Mr. Clapp

11, 12. Problems in Horticulture.—Open to students who manifest special interest and the capacity for individual effort. The consent of the instructor under whom problem work is desired must be obtained in each case before registration. Credit arranged. These courses may be repeated for credit. The Departmental Staff

51, 52. Seminar.—Preparation of papers, followed by classroom presentation and discussion, dealing with a wide range of topics related to horticulture. *One hour a week. Credit, one hour.*

Mr. Waring, Mr. Riley, Mr. Clapp

Graduate Courses

101, 102. Horticultural Investigations.—Credit and hours arranged. The Departmental Staff

103, 104. Research Methods.—Application of scientific method and equipment to the attack and solution of horticultural problems, and preparation of manuscript for publication. Credit and hours arranged. Mr. Waring

ALL DEPARTMENTS

Summer Projects.—A student in the College of Agriculture desiring to carry out a field project during the summer recess under faculty direction may obtain credit for such work providing arrangement is properly made with the major department concerned and the project is successfully carried through to completion. Project work may be conducted during the summer recesses between the sophomore and junior years, and junior and senior years. Sophomore-Junior Project is designated Pj 2 and limited to one hour credit. Junior-Senior Project is designated Pj 4 and may be one, two, or three hours credit. Complete details concerning project work may be obtained from heads of departments in which major curricula are offered.

College of Arts and Sciences

FACULTY OF INSTRUCTION

James Muilenburg, Ph.D., *Dean*
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*
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 and Astronomy*
John H Ashworth, Ph.D., *Professor of Economics and Sociology*
*Charles Andrew Brautlecht, Ph.D., *Professor of Chemistry and Chemical Engineering*
Milton Ellis, Ph.D., *Professor of English*
Albert Lewis Fitch, Ph.D., *Professor of Physics*
†François Joseph Kueny, L. ès L., *Professor of French*
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*
Donnell Brooks Young, Ph.D., *Professor of Zoology*
Adelbert Wells Sprague, M.A., *Professor of Music*
*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*
Maynard Fred Jordan, M.A., *Associate Professor of Mathematics and Astronomy*
Charles Burton Crofutt, Ph.D., *Associate Professor of Physics*

*Member of the faculty of the College of Technology.
†On leave of absence, 1932-33.
‡Member of the faculty of the School of Education.

Kenneth Stillman Rice, Ph.D., *Associate Professor of Zoology*
George William Small, Ph.D., *Associate Professor of English*
Edward French Dow, Ph.D., *Associate Professor of History and Government*
Stanley Royal Ashby, Ph.D., *Associate Professor of English*
Walter French, Ph.D., *Associate Professor of German*
Walter Whitmore Chadbourne, M.B.A., *Associate Professor of Economics and Sociology*
Edward Newcomb Brush, Ph.D., *Associate Professor of Psychology*
George Baer Fundenburg, Ph.D., *Associate Professor of French*
Warren Stanhope Lucas, M.A., *Assistant Professor of Mathematics*
Frances Elizabeth Arnold, M.A., *Assistant Professor of Spanish and Italian*
Marion Stephanie Buzzell, M.A., *Assistant Professor of French*
Achsa Mabel Bean, M.A., *Assistant Professor of Zoology*
Donald Stover Piston, B.S., *Assistant Professor of Physics*
Richard George Wood, M.A., *Assistant Professor of History and Government*
William Francis Scamman, M.A., *Assistant Professor of English*
Ruth Crosby, Ph.D., *Assistant Professor of English*
Cecil Gladstone Garland, M.A., *Assistant Professor of Economics and Sociology*
Alfred Carlton Andrews, Ph.D., *Assistant Professor of Latin*
Lillian Maynard Hatfield, Ph.D., *Assistant Professor of Psychology*
John Henry Magee, M.A., *Assistant Professor of Economics and Sociology*
Herman Samuel Silverman, M.A., *Instructor in Mathematics*
Ada Cohen Silverman, M.A., *Instructor in German*
Herschel Leonard Bricker, B.A., *Instructor in Public Speaking*
John Emmons Stewart, M.A., *Instructor in Mathematics*
Walter Reginald Whitney, B.S., *Instructor in English*
Glenn Quenton Lefler, M.A., *Instructor in Physics*
Elizabeth Sophia Foster, M.A., *Instructor in English*
Arlin Miller Cook, M.A., *Instructor in English*
Pauline Elma Darby, M.S., *Instructor in Zoology*
Max Hendricks Guyer, M.A., *Instructor in History and Government*
Fred Lincoln Lamoreau, B.A., *Instructor in Mathematics and Astronomy*
James Moreland, B.A., *Instructor in English*
Delyte Wesley Morris, B.A., *Instructor in Public Speaking*
Robert Bechtold Heilman, M.A., *Instructor in English*
Henry Gruber Stetler, M.A., *Instructor in Economics and Sociology*
Ruth Rebecca Stone, M.A., *Instructor in English*
Elizabeth Ring, M.A., *Instructor in History and Government*

*Frederick Christian Ahrens, M.A., *Instructor in German*
David Emmons Barker, B.A., *Graduate Fellow in Economics and Sociology*
Frances Cole Downes, B.A., *Graduate Fellow in Zoology*
Alfred Warren Perkins, B.A., *Graduate Fellow in Mathematics*
Edwin Sherman Worster, B.A., *Graduate Fellow in French*
Rachel Louise Rogers, B.A., *Graduate Fellow in Physics*
Jean Louise Captain, B.A., *Graduate Fellow in Zoology*
Muriel Freeman, B.A., *Graduate Fellow in German*
Howard Lewis Mendall, B.A., *Graduate Fellow in Zoology*
Abigail Louise Sargent, B.A., *Graduate Fellow in Spanish*
Leola Bowie Chaplin, B.A., *Graduate Scholar in English*
Isabelle Avesia Robinson, B.A., *Graduate Scholar in English*

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*Appointment for spring semester, 1932-33, only.

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.

All men are required to register for English, and, unless they are physically disqualified, they must register for Military Training and Physical Training. Women students register for English, Physical Education, and Hygiene. In addition, one subject must be selected from each of the divisions included under (1) foreign languages, (2) social sciences, and (3) sciences and mathematics. Other courses open to freshmen as electives include Public Speaking, Band, Chorus, and other courses in Music. In addition, during the spring semester Freshman Literature, Descriptive Astronomy, and Meteorology are available.

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 and three-fourths of the work in the major subject 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. Students who transfer to this college from other colleges of the University are required to complete 95 hours of C grade or better for graduation.

1. English Group.—This comprises the courses offered in the Departments of English and Public Speaking, and the course in Biblical Literature.

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.

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 Botany, Chemistry, Mathematics, Physics, and Zoology. These requirements may be satisfied by electing Zoology 1 and Botany 2, or Zoology 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 Govern-

ment, 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 Zoology 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.

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.

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: Chemistry, Economics and Sociology, English, French, German, History and Government, Latin, Mathematics and Astronomy, Music, Philosophy, Physics, Public Speaking, Psychology, Spanish and Italian, and Zoology (including Physiology).

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

The major subject must include courses counting not less than thirty hours (of which at least twenty must be in courses not regularly open to freshmen) and not more than forty hours. In double departments the maximum limit is 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 instructors may require their students also to select a minor subject. The minimum number of hours in the minor subject is fixed by the different departments, but, including freshman courses, is not less than fifteen nor more than twenty-two. The 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 Zoology.

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

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 School 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.

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 CURRICULA

The University is in a position to meet the needs of premedical and predental students. As the specific program of study is somewhat dependent on the school to which the student wishes to go, as well as his previous training, all premedical and predental students are required to consult the premedical adviser (the head of the Zoology Department) in making out their program.

Premedical and predental students can meet the University requirements by electing a major in Zoology, Chemistry, or what is termed a Premedical major. The latter has a requirement of fifty hours to be taken in Chemistry, Physics, and Zoology combined, the choice being a matter of personal preference of the student.

Curriculum in Journalism

The following program is suggested for those students who are interested in journalism or creative writing as a profession. The completion of this program will graduate the student with a major in English and a minor in economics. Certain courses may be shifted as to the year, but the order arranged is thought to be best. English 67 is suggested as a senior elective and a course in art appreciation is urged. Other courses in economics are also suggested as electives.

FIRST YEAR

Fall Semester

No.	Subject	Cr. Hours
Eh 1	Freshman Composition	3
Hy 1	U. S. History and Gov't	3
	Language (German or French)	3 or 5
	Science (Biology or Chemistry)	4
		13 or 15

Spring Semester

No.	Subject	Cr. Hours
Eh 2	Freshman Composition	3
Hy 2	U. S. History and Gov't.	3
	Language (German or French)	3 or 5
	Science (Biology or Chemistry)	4
		13 or 15

SECOND YEAR

Fall Semester			*Spring Semester*		
No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Eh 3	History of Eh. Lit.	3	Eh 4	History of Eh. Lit.	3
Eh 7	Second-Year Comp.	2	Eh 8	Second-Year Comp.	2
Eh 23	News Writing	3	Eh 24	Reporting	3
Py 1	General Psychology	3	Py 2	General Psychology	3
Mc 3	Music Appreciation	2	Mc 4	Music Appreciation	2
Es 1a	Principles of Econ.	3	Es 2a	Principles of Econ.	3
		16			16

THIRD YEAR

No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Eh 25	History of Journalism	2	Eh 26	History of Journalism	2
Eh 27	or 29 Mechanics of Editing or Feature Writing	3	Eh 28	or 30 Editorial Writing or the Country Newspaper	3
Eh 57	Shakespeare	3	Eh 58	Shakespeare	3
Es 41	Sociology	3	Es 42	Sociology	3
Hy 17	History of England	2	Hy 18	History of England	2
Hy 31	U. S. Government	3	Hy 32	Local Government	3
		16			16

FOURTH YEAR

No.	Subject	Cr. Hours	No.	Subject	Cr. Hours
Eh 27	or 29 (See Third Year)	3	Eh 28	or 30 (See Third Year)	3
Eh 43	American Literature	3	Eh 56	Business Law	3
Eh 61	History of the Drama	3	Eh 62	or 46 History of the Drama or Contemporary Drama	2 or 3
Es 55	Business Law	3			
Pl 51	Topics of Philosophy	3	Pl 52	Topics of Philosophy	3
		15			11 or 12

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 subjects 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

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 Courses 3 or 4. *Two hours a week.*

3. GREEK ART.—A course on the understanding and enjoyment of architecture and sculpture as developed by the ancient Greeks. Fundamental for art appreciation. Textbook, lectures, and photographs. 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. CULTURAL 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 1933-34. *Three hours a week.*

ASTRONOMY

PROFESSOR WILLARD; ASSOCIATE PROFESSOR JORDAN; MR. LAMOREAU

10. DESCRIPTIVE ASTRONOMY. An elementary course. The textbook 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 of engineering students, and consisting mainly of problems in the conversion of time, the determination of terrestrial latitudes, and the establishment of meridian lines. Open to students who have taken Mathematics 1 and 3. *Two hours a week* with additional hours for observation.
MR. JORDAN, MR. LAMOREAU

15, 16. GENERAL ASTRONOMY.—Designed for students in mathematics and physics and others wishing a more complete treatment of the subject than is possible in 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 1933-34 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 1932-33 and alternate years. *Three hours a week.* MR. JORDAN

BIBLICAL LITERATURE

DEAN MUILENBURG

1, 2. THE LITERATURE AND RELIGION OF THE ANCIENT HEBREWS.—A study of the development of Hebrew literature and religion in the light of its historical background, social environment, and literary form. The work is based upon a direct examination of the Bible itself. *Three hours a week.*

CHEMISTRY

The courses in this department are described under the College of Technology.

The science and mathematics group requirement in the College of Arts and Sciences may be met by completing chemistry Courses 1, 2, 37, and 42 or 54.

Students taking chemistry as a major subject in the College of Arts and Sciences must complete satisfactorily Courses 1, 2, and not less than twenty-five additional hours in chemistry, including 31, 40, 42, 51, 52, 71b, and 72b. Some biological science is required, also some mathematics and physics.

The following work in chemistry is required for some medical colleges of the first class:

"Three years' preparation in chemistry, including at least 240 hours of classroom 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." The nature and the number of the courses elected in chemistry as well as the grades obtained in them are factors in the selection of candidates for all medical schools.

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; Associate Professor Chadbourne; Assistant Professor Garland; Assistant Professor Magee; Mr. Stetler; Mr. Barker

Economics 1a, 2a, 9, and 10 are open to all upperclass 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.

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

1b, 2b. PRINCIPLES OF ECONOMICS.—Similar to Courses 1a and 2a. These are short courses for technical and agricultural students. *Two hours a week.* MR. GARLAND, MR. BARKER

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 pursue 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

16. BUSINESS LAW.—The legal principles of modern business: contracts, agencies, partnerships, corporations, negotiable instruments, mortgages. guaranty, and suretyship. For technical and agricultural juniors and seniors only. *Three hours a week.* MR. MAGEE

21. 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. For Technology juniors and seniors only. *Three hours a week.* MR. GARLAND

45. 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. For Technology juniors and seniors only. *Three hours a week.* MR. MAGEE

51. CORPORATION FINANCE.—The promotion, financing, incorporation, and capitalization of industrial corporations in the United States; the rela-

tions of stockholders and directors; stock speculation; receiverships and reorganizations. Juniors and seniors only. *Three hours a week.* MR. MAGEE

52. MARKETING.—The marketing functions; the marketing of farm 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. INVESTMENTS AND INVESTMENT 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. MAGEE

57, 58. INSURANCE.—Problems of risk are considered with the purpose of indicating the different forms of insurance available for shifting their burden. Principles underlying insurance transactions are considered with a view to equipping the individual to make intelligent decisions concerning insurance problems. *Two hours a week.* MR. MAGEE

71. PUBLIC FINANCE.—Government activities and expenditures; tax systems and reform measures; budget systems and current tax problems. Juniors and seniors only. *Two hours a week.* MR. ASHWORTH

72. LABOR PROBLEMS.—Similar to Course 21. Juniors and seniors only. *Three hours a week.* MR. ASHWORTH, MR. GARLAND

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

78. BUSINESS STATISTICS.—An introduction to the methods of collecting, compiling, presenting, and interpreting statistical data as applied to economic and commercial facts. Attention is given to classification, tabulation and presentation of data by means of tables, charts, and graphs; to methods of summarization of statistical facts by use of averages, index numbers, etc.; to measurement of relationships; to statistical control of business enterprise. *Three hours a week.* MR. GARLAND

101, 102. SEMINAR. MR. ASHWORTH, MR. CHADBOURNE
MR. GARLAND, MR. MAGEE

Sociology

41, 42. PRINCIPLES OF SOCIOLOGY.—An introductory course designed to acquaint the student with the social structure and its organizations, functions, and regulative principles; the relation of society to the environment; and the processes of social change. Open to sophomores. *Three hours a week.*
MR. STETLER

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 social control. Prerequisites, Courses 41, 42. *Three hours a week.*
MR. STETLER

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.* MR. STETLER

81, 82. THE FAMILY.—Analysis of the 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. Given in 1932-33 and alternate years. *Two hours a week.* MR. STETLER

87. SOCIAL EVOLUTION AND SOCIAL CHANGE.—Analysis of the evolutionary aspects of associations, institutions, and mores in society. Consideration of progress, civilization, and culture, and theories of social change. Special emphasis upon the fundamental problems of social causation. Prerequisites, Courses 41, 42, and permission of the instructor. Given in 1933-34 and alternate years. *Two hours a week.* MR. STETLER

88. POPULATION AND RACE PROBLEMS.—Consideration of the factors involved in the composition, growth, and control of population. Analysis of birth and death rates. Influence of standards of living. Special consideration of the race problem in the United States. Prerequisites, Courses 41, 42, or permission of the instructor. Given in 1933-34 and alternate years. *Two hours a week.*
MR. STETLER

103, 104. SEMINAR. MR. STETLER

ENGLISH

PROFESSOR ELLIS; ASSOCIATE PROFESSORS TURNER, SMALL, AND ASHBY; ASSISTANT PROFESSORS SCAMMAN AND CROSBY; MR. WHITNEY; MISS FOSTER; MR. MORELAND; MR. COOK; MR. HEILMAN; MISS STONE; MISS CHAPLIN; MISS ROBINSON

English 1, Freshman Composition, in the fall semester, and English 2, 2a, or 18 in the spring semester are required of all freshmen unless excused by the Department, and are prerequisite for all other credit courses in English. Students in the Colleges of Arts and Sciences and Technology who show special proficiency in the Freshman Week English tests are excused from taking the usual freshman courses and admitted to the honors course, English 11, 12.

English 3, 4, the foundation course in English literature, is recommended for all sophomores in Arts and Sciences and for students in the other colleges who desire a general cultural course in English.

English 5, (6), Technical Composition, is required of Technology students in the senior or junior year, of Forestry sophomores, and of juniors in the Agriculture curricula.

English 9, (10), Modern Literature, is required of juniors in Technology unless Public Speaking is elected instead, and is required of Forestry sophomores and of juniors in the Zoology curriculum.

English major students are expected to complete thirty hours in English beyond the freshman year, including Courses 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) Courses 57, 58 or 61, 62; (2) 43, 44; 55, 56; 59, 60; or 81, 82; (3) 51, 52; 53, 54; 63, 64; 65, 66; 71, 72; 75, 76; or 87, 88. Substitutions for students desiring to specialize in journalism, 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. *Freshmen who expect to major in English are advised to elect German 1, 2 as their required language subject.*

A grade of C or better is expected in thirty hours of required work, including English 3, 4.

A comprehensive major examination, oral and written, covering the student's courses in English literature is held early in the final semester of the senior year. A corresponding written examination near the end of the junior year tests the student's knowledge of rhetoric and the mechanics of writing and serves as a basis for the selection of approved senior tutors.

A minor of eighteen hours is selected in some related department, usually History, Latin, French, or Public Speaking. Students intending to teach in

secondary schools are advised to prepare themselves also in a third teaching subject.

An approved English minor, for major students in other departments, includes Courses 3, 4; 7, 8; 57, 58; and 67 (68) or 21 (22). No student will be officially 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, for students in all colleges. Stress is placed upon correctness, clarity, and ease of expression and upon the organization of material. Frequent themes and conferences. Required of all freshmen not excused by the Department. *Three hours a week.*

Note: Freshmen who are particularly deficient in the fundamentals of grammar, sentence structure, and spelling are required to attend special tutoring groups in addition to the regular work of the course.

Mr. Turner (Chairman) and Members of the Department

2. Freshman Composition: Description and Narration.—The study and writing chiefly of description and narration, with some further study of exposition. Several works of literature are likewise read. For freshmen in Arts and Sciences and Technology. *Three hours a week.*

Mr. Turner (Chairman) and Members of the Department

2a. Freshman Composition: Argument and Exposition.—The study and writing of informal argument. Expository themes based upon investigation. One extended report is constructed. For freshmen in the College of Agriculture. *Three hours a week.*

Miss Crosby, Mr. Cook, Mr. Heilman, Miss Stone

3, 4. History of English Literature.—A survey of English literature from the beginning to the present. Prerequisite for all advanced courses in English literature. *Three hours a week.*

Mr. Small (Chairman), Mr. Turner, Mr. Ashby, Mr. Heilman

5, (6). Technical Composition.—Business correspondence, reports, and preparation of manuscript for publication. *Not open to students in Arts and Sciences. Two hours a week,* fall or spring semester.

Mr. Scamman (Chairman), Mr. Moreland, Mr. Heilman

7, 8. Second-Year Composition.—A course in exposition and narration, for students who have passed English 1, 2 and desire further work in general composition. *Two hours a week.*

Mr. Whitney (Chairman), Mr. Ashby, Miss Foster, Miss Stone

9, (10). Modern Literature.—A study of specimens of literature of contemporary interest, with the design of cultivating the appreciation and

enjoyment of good reading. 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 (Chairman), MR. MORELAND, MR. HEILMAN

11, 12. FRESHMAN LITERATURE AND COMPOSITION (HONORS COURSE). —A survey of English literature from its beginnings through the nineteenth century. Practice in theme writing of expository, descriptive, and narrative types. Open only to freshmen excused from English 1. *Three hours a week.*

MISS CROSBY, MISS STONE

13, 14. TYPES OF LITERATURE.—A critical and appreciative study of representative novels, plays, lyric and narrative poetry, biography, magazines, and other literary types. For students in the Home Economics curriculum. *Three hours a week.*

MISS STONE

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 effective English for business purposes. *Two hours a week.*

MR. SCAMMAN

18. LITERATURE FOR FRESHMEN.—The reading and study of works of literature representing the chief literary types: fiction, essays, poetry, and drama. This course may be elected instead of or in addition to English 2 by freshmen in Arts and Technology who have completed English 1 with a grade better than C–. *Three hours a week.*

MR. ASHBY, MISS FOSTER, MR. COOK, MR. HEILMAN

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 in theme correcting. Planning a well-ordered sequence of high-school classics. *Two hours a week.*

MISS CHAPLIN

23, 24. NEWS WRITING.—Training in the fundamentals of newspaper work through theory and practice. The first semester deals with general principles, the second semester with the newspaper reporting of public events. Except by permission of the instructor, students may not take English 24 without having had English 23. *Three hours a week.* MR. MORELAND

25. HISTORY OF THE AMERICAN NEWSPAPER.—Origin and development of journalism in the United States, with emphasis on the outstanding personalities and the growth of the influence of the press. *Two hours a week.*

MR. MORELAND

26. History of Present-Day Journalism.—Great newspapers of the present day, with study of the forces which have molded them and what these forces represent in modern life. *Two hours a week.* Mr. Moreland

27. Mechanics of Editing.—Copy reading, headline writing, and page make-up, with a study of news values. Textbook and lectures. Prerequisite, English 23, 24. Given in 1932-33 and alternate years. *Three hours a week.* Mr. Moreland

28. Editorial Writing.—A study of editorial writing; dramatic, literary and musical criticism; special column writing. The course emphasizes the mechanics of the writing and the importance of such writing in the formation of public opinion. Prerequisite, English 7, 8. Given in 1932-33 and alternate years. *Three hours a week.* Mr. Moreland

29. Feature Writing.—Training and practice in feature writing for newspapers and magazines. Each student will be required to write at least four articles acceptable for publication during the semester. Prerequisite, English 7, 8. Given in 1933-34 and alternate years. *Two hours a week.* Mr. Moreland

30. The Country Newspaper.—A study of country journalism with a view to its improvement. Actual writing for weekly and semi-weekly papers of the State is required in the course. Prerequisite, English 23, 24. Given in 1933-34 and alternate years. *Two hours a week.* Mr. Moreland

37, 38. Tennyson and Browning.—Primarily reading courses with class discussion. May be taken separately. Given in 1932-33. *Two hours a week.* Mr. Turner, Mr. Cook

39, 40. The Eighteenth and Nineteenth Century Essay.—Addison, Steele, Swift, Johnson, Goldsmith, and Burke; Lamb, De Quincey, Macaulay, Carlyle, Ruskin, Arnold, and Stevenson. Not given in 1932-33. *Two hours a week.* Mr. Cook

43, (44). American Literature.—A survey course, based upon the study of the chief works of American poets and prose writers. Lectures, recitations, and assigned readings. *Three hours a week,* fall or spring semester. Mr. Ellis, Miss Foster

45, 46. Contemporary Literature.—A study of present-day tendencies and production in one or more of the various types of literature. For the fall semester of 1932-33, the topic is Recent English Poetry; for the spring semester of 1933, Recent Drama. *Two hours a week.* Mr. Whitney

For the courses which follow, English 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. Given in 1932-33. *Three hours a week.* Mr. Small

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. Given in 1932-33. *Three hours a week.* Mr. Small

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 Crosby

55, 56. Nineteenth Century Poetry.—In the first half the poets of the English Romantic Movement—Wordsworth, Coleridge, Byron, Shelley, and Keats—are considered; in the second, those of the Victorian Age, especially Tennyson, Browning, Arnold, and the Pre-Raphaelites. Given in 1932-33 and alternate years. *Three hours a week.* Mr. Turner

57, 58. Shakespeare.—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. Attention is given to Elizabethan stage conditions and the dramatic work of Shakespeare's contemporaries. *Three hours a week.* Mr. Ellis and Mr. Small

59. English Literature from 1790 to 1830.—A study of the various types of literature during the Romantic Movement, with some interpretation of the spirit of the time. The poetry of the age of Wordsworth; Jane Austen and Scott; the rise of the essay with Lamb, Hazlitt, and De Quincey. Given in 1933-34 and alternate years. *Three hours a week.* Mr. Turner

60. English Literature from 1830 to 1870.—A consideration of the various types of literature during the first half of the Victorian Period with a study of the spirit and interests of the period. The poetry of Tennyson, Browning, and their contemporaries; the Victorian novel; the great prose writers, such as Carlyle, Arnold, and Ruskin. Given in 1933-34 and alternate years. *Three hours a week.* Mr. Turner

61, 62. History of the English Drama.—The development of the drama in England from the miracle and mystery plays through the Elizabethan period. Subsequent tendencies in the Restoration and the eighteenth century, the nineteenth century closet drama, and the revival of the acting play in England and Ireland. *Three hours a week.* Mr. Ashby

63. Sixteenth Century Literature.—Non-dramatic poetry and prose of the century, with particular attention to the poetry of Spenser. Not given in 1932-33. *Three hours a week.* Mr. Ashby

64. Seventeenth Century Literature.—The non-dramatic poetry and prose of the century to the Restoration, with particular attention to Milton. Not given in 1932-33. *Three hours a week.* Mr. Ashby

65, 66. Eighteenth Century Literature.—A study of the evolution of neo-classicism as it merges into the early Romantic Movement, as shown in the poetry, fiction, and drama of the period. Given in 1933-34 and alternate years. *Three hours a week.* Mr. Ashby

67. History of the English Language.—The origins of the language; its relation to other languages; the sources and development of the English vocabulary. *Two hours a week.* Mr. Small

68. History of the English Language.—The development of standard spoken English. A study of the changes that have taken place in our language from the time of King Alfred to our own day, with special attention to the pronunciation and inflection of American English. Not given in 1932-33. *Two hours a week.* Mr. Small

71, 72. Advanced American Literature.—A study of some special field or period of American literature, conducted as a pro-seminar course. English 43, (44) or its equivalent is prerequisite. For the fall semester, 1932-33, the topic is Eighteenth Century American Literature; for the spring semester, 1933, the American Humorists. *Three hours a week.* Mr. Ellis

75, 76. Comparative Literature.—A survey of Continental European literature from Homer to the present, attempting to show the relationship among the literatures of different epochs and different countries. The first semester treats ancient and medieval literature and the Renaissance in Italy and Spain. The second semester covers the literature from the Renaissance in France to modern times. No knowledge of foreign languages is required. Except by permission, students may not take English 76 without English 75. Given in 1933-34. *Three hours a week.* Mr. Turner

77, 78. Creative Writing.—An advanced course for students who have shown exceptional interest and ability in some field of writing. The type selected will vary in different years. *Three hours a week.*

77a, (78a). The Short Story.—Given in the spring semester, 1933. Mr. Whitney

77b, (78b). The Familiar Essay.—Given in the fall semester, 1932-33. Mr. Whitney

77c, (78c). Verse Writing.—Given in the spring semester, 1934.
Mr. Ellis

77d, (78d). The One-Act Play.—Not given in 1932-33.
Mr. Whitney

81, 82. The English Novel.—This course traces in the first semester the history of the English novel from the medieval prose romances to the death of Scott. Beginning with Dickens and Thackeray, the second semester treats the Victorian novel in considerable detail and makes some study of recent British novelists. Given in 1932-33 and alternate years. *Three hours a week.*
Mr. Turner

85, (86). Restoration Literature.—The temper and life of the Restoration period as reflected in the literature; the Restoration drama; the significance of Dryden's work; political satire; the standards of neo-classicism in poetry; the rise of modern prose. Given in the fall semester, 1932-33. *Three hours a week.*
Mr. Ashby

FRENCH

Professor Kueny*; Associate Professor Fundenburg; Assistant Professor Buzzell; Mr. Worster

French major students are required to elect thirty hours in French beyond their freshman year. 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; 53 and 54 (or 55 and 56); 57 and 58 (or 59 and 60); 62, 63, and 64.

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 their freshman year, and these eighteen hours must include Courses 7, 8, 9, 10; 53 and 54 (or 55 and 56); 63, and 64.

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. *Five hours a week.*
Miss Buzzell, Mr. Worster

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. Fundenburg, Miss Buzzell, Mr. Worster

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*On leave of absence, 1932-33.

7, 8. Elementary Conversation and Composition.—Open to students who have offered two units of French as entrance requirements. *Two hours a week.* Mr. Fundenburg, Miss Buzzell

9, 10. Advanced Conversation and Composition.—Open to students who have completed Courses 7 and 8, or an equivalent. *Two hours a week.* Mr. Fundenburg

21, 22. The French Historians.—A survey of the part played by historical writers in French literature, with a detailed study of some representative historical works of the nineteenth century. Open to students who have passed Course 6. *Two hours a week.* 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.* Miss Buzzell

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. Miss Buzzell

55. The Drama in the Nineteenth Century, 1800-1850.—The important plays of Hugo, Dumas père, Vigny, Musset, and Scribe will be either studied in class or assigned for outside reading. Lectures, oral and written reports. Those who wish to do so will be encouraged to make their oral reports in French. Open to students who have passed Course 6. *Two hours a week.* Mr. Fundenburg

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. Fundenburg

57, 58. Advanced French Grammar.—Lectures, recitations, practical exercises. The student is trained in making his own grammar through the study of representative works. Open to students who have passed Courses 9 and 10, or an equivalent. Given in 1933-34 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 1934-35 and alternate years. *Three hours a week.* MR. 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 upperclass students. Given in 1933-34 and alternate years. *Two hours a week.* MR. KUENY

63. THE SEVENTEENTH CENTURY, 1600-1660.—A study, through lectures and assigned reading, of the formation of classicism. Rapid reading of representative works, with more deliberate consideration of the landmarks. Open to students who have passed Course 6. *Two hours a week.* MR. FUNDENBURG

64. THE SEVENTEENTH CENTURY, 1660-1700.—The age of classicism. Open to students who have passed Course 63. *Two hours a week.* MR. FUNDENBURG

73. 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 Courses 63 and 64, or to seniors who are also taking 63. *Two hours a week.* MR. FUNDENBURG

74. 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. FUNDENBURG

101, 102. THE MIDDLE AGES.—The historical 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 1934-35 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 1933-34 and alternate years. *Two hours a week.* MR. KUENY

GEOLOGY

The courses in this subject are described under the College of Agriculture and the College of Technology (Civil Engineering).

GERMAN

PROFESSOR DRUMMOND; ASSOCIATE PROFESSOR FRENCH; MRS. SILVERMAN; MR. AHRENS; MISS FREEMAN

1, 2. FIRST-YEAR GERMAN.—A course for beginners. Grammar, composition, translation, conversation. Credit is not given for less than a year's work to students registered in the College of Arts and Sciences. *Five hours a week.*

MR. DRUMMOND, MR. FRENCH, MRS. SILVERMAN, MR. AHRENS, MISS FREEMAN

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, MRS. SILVERMAN

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. FRENCH

9. TEACHERS' COURSE.—For those who intend to teach German. Discussion of methods of teaching, the value of different texts, preparation of the lesson, classroom 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.* MRS. SILVERMAN

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. FRENCH

17, 18. ADVANCED GERMAN CONVERSATION AND COMPOSITION.—For students who have had Courses 13, 14. *Two hours a week.* MR. DRUMMOND

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 various 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. *Two hours a week.* MR. FRENCH

The department is also prepared to give, when there is a demand, the following courses: 61, 62. EARLY NEW HIGH GERMAN; 101, 102. GOTHIC: INTRODUCTION TO THE STUDY OF GERMANIC PHILOLOGY; 103, 104. OLD HIGH GERMAN; 105, 106. MIDDLE HIGH GERMAN.

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; ASSISTANT PROFESSOR ANDREWS

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 achievements of the Greeks and Romans in laying the foundations 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. Textbook, lectures, and notebook. *Three hours a week.* MR. HUDDILSTON

3. GREEK LIFE AND CULTURE.—A brief study of important features of the Greek legacy in art, literature, religion, and philosophy. Textbook and lectures. *Two hours a week.* MR. HUDDILSTON

3a. Greek Life and Culture.—The same material is covered as in the preceding course but more stress is laid on the art and literature. Not open to those who have had Course 3. *Three hours a week.*

Mr. Huddilston

4. Early Religions.—A study of the religious conceptions of the ancient Egyptians, Babylonians, Persians, and Greeks; with chief emphasis on the Greeks. Lectures and assigned reading; investigation of special topics by members of the class. *Two hours a week.* Mr. Huddilston

5, 6. Beginning Greek.—The first semester is devoted to grammar and elementary work and includes considerable translation of prepared exercises and adapted passages from various Greek authors. The second semester is devoted to the translation of selections from Homer's *Iliad* or *Odyssey.* Students registered in the College of Arts and Sciences must take both semesters in order to obtain credit. *Four hours a week.* Mr. Andrews

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 1933-34. *Three hours a week.*

Mr. Huddilston

55, 56. Ancient History.—The work of the first semester centers on the national demonstrations that culminated before 500 B.C. Special attention is given to the value of the monuments in Egyptian, Babylonian, Hittite, and Cretan cultures. The second semester follows the Mediterranean, passing in review important factors in Phoenician, Greek, and Roman history. Only students majoring in history may take this course except on arrangement with the instructor. Investigation of assigned topics, special reports, and discussions. Given in 1933-34. *Two hours a week.* Mr. Huddilston

HISTORY AND GOVERNMENT

Associate Professor Dow; Associate Professor Whitmore; Assistant Professor Wood; Mr. Guyer; Miss Ring

History

1, 2. United States History.—This course begins with the close of the Revolution. Open only to freshmen except by the consent of the instructor. *Three hours a week.* Mr. Whitmore, Mr. Guyer

11. Medieval History.—This course treats of our western world during one of the chief stages of its evolution—when Rome gave way before invaders from Germany and Arabia; when feudalism and the Christian church reached the height of their powers, and then were gradually displaced by the growth of national states. *Three hours a week.* Miss Ring

12. Modern History.—A continuation of Course 11, from 1500 through the period of the Reformation, the Thirty Years War, the French Revolution, the nationalization of Germany and Italy, the World War era, and subsequent events to the present day. A political, social, and economic review of modern Europe. *Three hours a week.* Miss Ring

17, 18. History of England.—From early times to the present. *Three hours a week.* Mr. Wood

21, (22). Current World Problems.—A course designed for those who wish to be intelligently informed on world affairs, but do not make history their major subject. Lectures and discussions on outstanding problems of history, government, and politics. Open to all students in the University except freshmen. *Two hours a week.* Members of the Department Staff

51, 52. Topics in Philosophy.—Properly qualified history students interested in the social and intellectual history of Europe may elect this course. See Philosophy 51, 52, under Department of Philosophy. *Two or three hours a week.* Mr. Levinson

53. The French Revolution.—After a survey of the background of the eighteenth century, the course considers in some detail the Estates-General; constitution making; the Terror; the Thermidorian reaction; the Directory; the Consulate; the Empire. At the same time attention will be given to events outside of France. There will be some emphasis upon biography. Prerequisites: Courses 11 and 12, or 17 and 18, or consent of the instructor. Not given in 1933-34. *Two hours a week.* Mr. Wood

54. The World War.—This course will stress the pre-war diplomacy and causes of the World War, and will then study the war and postwar periods. Prerequisites: same as for Course 53. Not given in 1933-34. *Two hours a week.* Mr. Wood

55, 56. Ancient History.—Listed under the Department of Greek Language and Literature. Given in 1933-34. *Two hours a week.* Mr. Huddilston

57. American Colonial History.—A study of the American colonies in the seventeenth century. Permission of the instructor required. *Two hours a week.* Mr. Whitmore

58. Preliminaries of the American Revolution.—A detailed study of the British Empire under George III, the mercantile system, and the development of anti-English feeling in the colonies. Permission of the instructor required. *Two hours a week.* Mr. Whitmore

59. Social and Industrial History of England.—This course begins with the manorial system and comes down to the present time, with an emphasis on the economic revolution. Social history will also be stressed. Prerequisite, junior standing. *Two hours a week.* Mr. Wood

60. Social and Industrial History of the United States.—This course begins with the colonial period, but places emphasis upon the social and economic changes leading to the machine age. Prerequisite: junior standing. *Two hours a week.* Mr. Wood

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. Prerequisites: Courses 17 and 18, and the permission of the instructor. *Two hours a week.* Mr. Wood

64. Canadian History.—Beginning with the period of early French colonization, and stressing the French background in Canadian life, the political and economic development of Canada is traced to the present. Prerequisite: one course in American history, or the permission of the instructor. *Two hours a week.* Mr. Wood

65, 66. Latin-American History.—Listed under the Department of Spanish and Italian. *Two hours a week.* Mr. Peterson

79. The Renaissance.—This course treats especially of intellectual interests and changes in and beyond Italy, from the times when feudalism and the church were at their height until a new economy and more centralized states prevailed and the church was in process of reformation. New currents in literature, arts, natural science, and religion will be illustrated from the lives of such men as Dante, Petrarch, and Machiavelli. Prerequisite: Course 11, or permission of the instructor. *Three hours a week.*

80. The Reformation.—A continuation of Course 79. A history of Europe from the fourteenth century to the sixteenth century, with special reference to problems and measures concerning the Church. Prerequisite: Course 79, or consent of the instructor. *Three hours a week.*

97. Historical Material.—A course designed to aid the student in research and writing, through a study of the theory and the mechanics of original investigation. Primarily intended for history majors, it offers practical training valuable for seniors in English and the social sciences. The student's ability to make an original study of some subject will be tested by a

term paper, which ordinarily may be written for credit in some other course. *Three hours a week.* Mr. Wood

98. Seminar.—This course is designed to round out the work of students majoring or concentrating in history and government, and also to aid them in developing one or more special interests to carry with them in after life. Individual and group conferences are held and special work assigned to fit the needs of each student. *Three hours a week.*

Members of the Department Staff

Government

31. The National Government of the United States.—The principles and interpretation of the Federal Union. Special attention will be paid to congressional organization, procedure, and powers; the presidency; the executive departments; present problems such as regulation of commerce. Not open to freshmen. *Three hours a week.* Mr. Dow, Mr. Guyer

32. State and Local Government.—Continuation of Course 31. Organization and powers of State governments; county, town, and city government; political parties and practical politics. *Three hours a week.*

Mr. Dow, Mr. Guyer

(33), 34. Municipal Government and Administration.—The relation of urban government to modern civilization. Lectures and discussions on such topics as mayor and city-manager government, elections, graft and bosses, city planning, zoning, law enforcement, traffic, fire protection, parks, schools. *Three hours a week.* Mr. Dow

35, (36). Comparative Government.—A study of governments, political parties, and current problems in the leading nations of the world, with the emphasis on Europe, England, and the Dominions. *Three hours a week.*

Mr. Dow

73. International Relations.—A survey of the problems of international life arising out of nationalism, imperialism, race conflicts, etc. How these problems are met by treaties, conferences, and such agencies as the Permanent Court and League of Nations. *Three hours a week.* Mr. Guyer

74. American Foreign Relations.—The relations of the United States to the outside world. Such policies will be examined as the Monroe Doctrine, Pan-Americanism, the "Open Door." Attention will be paid to our attitude on the acquisition of territory, arbitration, limitation of armaments, the League of Nations. Courses 1 and 2, or 31, prerequisites. *Three hours a week.* Mr. Guyer

83, 84. American Constitutional Law.—This course deals with the interpretation of the Constitution in the Federal courts. Leading cases will be read and discussed on such topics as due process of law, regulation of interstate commerce, freedom of speech. Not given in 1933-34. *Three hours a week.*
Mr. Dow

87, 88. International Law.—The reading consists largely of selected cases, followed by classroom discussion. Discovery and occupation, search and seizure, neutrality, recognition of states, arbitration, laws of land and sea warfare, etc. Given in 1933-34. *Three hours a week.*
Mr. Dow

99, 100. Political Theory.—A survey of the classics of political theory from Plato to the present day. Reading, lectures, and discussion of Aristotle, Machiavelli, Paine, Rousseau, Jefferson, Mill, Spencer, Laski, and others. Either 99 or 100 given when requested by qualified students. *Three hours a week.*
Mr. Dow

LATIN

Professor Chase; Assistant Professor Andrews

(Prospective teachers of Latin should take among their Latin courses 7, 8 and 51, 52.)

1, 2. Beginning Latin.—Equivalent to the first two years of high-school study. Students registered in the College of Arts and Sciences must successfully complete both 1 and 2 in order to obtain credit. *Four hours a week.*
Mr. Andrews

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 or Latin 1, 2. Given in case of sufficient demand. *Four hours a week.*
Mr. Andrews

4. Vergil.—*Aeneid.*—Open to students who have completed two years' study of Latin in high school or Latin 1, 2. Given in case of sufficient demand. *Four hours a week.*
Mr. Andrews

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 hour a week.*
Mr. Andrews

9. Tacitus.—Reading and discussion of the *Agricola* and *Germania*. *Three hours a week.* Mr. Andrews

10. Terence and Plautus.—The *Phormio* of Terence; the *Captivi* and *Trinummus* of Plautus; study of early Latin and the development of Roman comedy. *Three hours a week.* Mr. Andrews

21. Latin Composition.—Practice in writing Latin; study of Latin syntax. Open to students who have completed Latin 7, 8. *One hour a week.* Mr. Chase

22. Latin Composition.—Practice in writing Latin; study of Latin rhetoric. Open to students who have completed Latin 7, 8. *One hour a week.* Mr. Chase

23. The Younger Pliny.—Reading of selected letters of Pliny; the Roman Empire. *Three hours a week.* Mr. Chase

24. Horace and Juvenal.—Reading of selections from the great satirists; study of Roman satire and social life. *Three hours a week.* Mr. Chase

25, 26. Collateral Reading.—Supervised reading in English on selected topics concerned with ancient Rome. *One hour a week.* Mr. Andrews

57, 58. Roman Philosophy.—Reading from the *De Rerum Natura* of Lucretius and from the philosophical writings of Cicero and Seneca. Discussion of the leading schools of ancient philosophy. Not given in 1932-33. *Three hours a week.* Mr. Chase

59, 60. Roman Rhetoric and Oratory.—Tacitus, *Dialogus de Oratoribus;* Cicero, selections from the *Brutus* and *De Oratore*. Given occasionally. *Three hours a week.* Mr. Chase

62. The Latin Language.—An historical study of Latin forms and inflections with a study of early inscriptions. *Three hours a week.* Mr. Chase

107. Sanskrit.—Given in case of adequate demand. Mr. Chase

MATHEMATICS

Professor Hart; Professor Willard; Associate Professor Bryan; Associate Professor Jordan; Assistant Professor Lucas; Mr. Silverman; Mr. Stewart; Mr. Lamoreau; Mr. Perkins

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; trigonometric equations; inverse functions; solution of right and oblique triangles. *Two hours a week.*

Mr. Willard, Mr. Bryan, Mr. Jordan, Mr. Silverman, Mr. Stewart, Mr. Lamoreau, Mr. Perkins

2. (21). 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. *Three hours a week.*

Mr. Perkins

2a. Solid Geometry.—Solid and spherical geometry, including original demonstrations and the solution of numerical problems. This course is primarily for students in Forestry who did not offer solid geometry for admission. *Two hours a week.*

Mr. Perkins

3. College Algebra.—A brief review of radicals, the theory of exponents, logarithms, quadratic equations, the binomial theorem; determinants; theory of equations. *Two hours a week.*

Mr. Willard, Mr. Bryan, Mr. Silverman, Mr. Stewart, Mr. Lamoreau, Mr. Perkins

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. The equivalent of Course 2 is desirable. *Four hours a week.*

Mr. Willard, Mr. Bryan, Mr. Lucas, Mr. Silverman, Mr. Stewart, Mr. Lamoreau, Mr. Perkins

7. Calculus.—Differentiation of the elementary forms of algebraic and transcendental functions; successive differentiation; differentials; rates; maxima and minima; expansion of functions; series. Open to students who have taken Courses 1, 3, and 6. *Five hours a week.*

Mr. Willard, Mr. Bryan, Mr. Jordan, Mr. Lucas, Mr. Silverman, Mr. Stewart, Mr. Lamoreau

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, Mr. Stewart, Mr. Lamoreau

9. Trigonometry.—A course equivalent to Course 1, given to freshmen in Forestry. *Two hours a week.* Mr. Bryan, Mr. Jordan

10. Applications of Trigonometry.—A continuation of Course 9. *Two hours a week.* Mr. Jordan, Mr. Lamoreau

13. Spherical Trigonometry.—The elements of this subject with problems and applications to spherical astronomy. Given in 1931-32 and alternate years. *Two hours a week.* Mr. Lucas

17. Mathematical Theory of Investment.—A study of interest, both simple and compound, present value, discount, and annuities. Throughout the course numerous problems are solved to illustrate the theory and to fix the principles involved. *Two hours a week.*
Mr. Silverman, Mr. Stewart

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. Silverman, Mr. Stewart

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

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.* Mr. Lucas

51. Advanced Analytic Geometry.—A course for students who have completed Courses 5, 6, 7, and 8. Given in 1932-33 and alternate years. *Three hours a week.* Mr. Hart

52. Solid Analytic Geometry.—Given in 1932-33 and alternate years. *Three hours a week.* Mr. Hart

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 contnuation 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 1932-33 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 1933-34 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. Not given in 1932-33. *Three hours a week.* Mr. Bryan

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. Not given in 1932-33. *Three hours a week.* Mr. Bryan

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; 101. Theory of Functions of a Complex Variable; 102. Elliptic Functions; 105. Vector Analysis; 109. Celestial Mechanics; 110. Hydrodynamics; 115. Theory of Functions of Real Variables; 116. Fourier's Series; 117. Theory of Substitution Groups and of Algebraic Fields; 118. Theory of Transformation Groups (Lie Theory); 119, 120. Differential Geometry.

MUSIC

Professor 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. Given in 1933-34 and alternate years. *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 through its study and practice. Original work the chief aim of the course. Courses 5, 6 a prerequisite. Given in 1932-33 and alternate years. *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 product, the symphonic poem and the music drama. Analysis of masterworks, assigned studies. Given in 1933-34 and alternate years. *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. Given in 1932-33 and alternate years. *Two hours a week.*

21, 22. Public School Music Methods.—This course is designed to meet the needs of students expecting to enter the general teaching field and who may be required or have the opportunity to teach or direct music in addition to other subjects. Presentation of methods as applied to elementary and secondary education. A knowledge of notation required. Not given in 1932-33. *Three 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. One credit hour.*

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. *Two hours a week.*

Applied Music Study

The University music curriculum concentrates on the theoretical and cultural aspects of the subject. Students desiring applied music study may obtain both instrumental and vocal instruction at the Northern Conservatory of Music in Bangor. The University approves and encourages the aim of students to develop talent in musical performance as an adjunct of a college education and an asset in life.

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; 8; 51, 52.

1, 2. Orientation.—An introduction to liberal education restricted to Arts freshmen. This 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.*

3. History of Ancient and Medieval Philosophy.—An introduction to philosophy through the study of Greek thought from the beginning to the Christian era, and its projection into the Christianity of the Middle Ages. Given in 1933-34 and alternate years. *Three hours a week.*

4. History of Modern Philosophy.—The rise of experimental science and the development of the great philosophical systems from Descartes to William James. Given in 1933-34 and alternate years. *Three hours a week.*

5, 6. Types of Philosophy.—An introduction to philosophy by way of an elementary analysis and appraisal of various representative philosophical systems. While designed as an alternative to Courses 3 and 4, open by consent of the instructor to students who have taken either of these courses. Given in 1932-33 and alternate years. *Three hours a week.*

8. Logic.—An analysis of the rational procedure underlying scientific method and forensic debate. Given in 1933-34 and alternate years. *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 through tutorial conferences, assigned readings, and reports. No work in philosophy is prerequisite. *Two or three hours a week.*

PHYSICS

Professor Fitch; Associate Professor Crofutt; Assistant Professor Piston; Mr. Lefler; Miss Rogers

1, 2. General Physics.—A course covering the fundamental relations in mechanics, sound, heat, light, and electricity. Lectures, recitations, and laboratory. Classroom, *four hours a week;* laboratory, *two hours a week. Five credit hours.* Mr. Fitch, Mr. Crofutt, Mr. Piston, Mr. Lefler, Miss Rogers

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. Classroom, *three hours a week;* laboratory, *two hours a week. Four credit hours.* Under special circumstances the class work may be taken without the laboratory work.

Mr. Crofutt, Mr. Lefler, Miss Rogers

10. Meteorology.—A course covering the essential principles of the subject including a study of instruments and weather predictions. *Three hours a week. Three credit hours.* Mr. Piston

15. History of Physics.—A textbook course dealing with the lives of those men who have contributed most to the development of physics. Given in 1932-33 and alternate years. *Two hours a week. Two credit hours.*

Mr. Piston

51, (52). Mechanics and Heat Laboratory.—An advanced laboratory course stressing the physical principles. Laboratory, *four hours a week. Two credit hours.* Mr. Piston

53, 54. Electrical Measurements.—An advanced laboratory course in the measurement of electrical quantities. Both direct and alternating currents are studied. Laboratory, *three hours a week. One and one-half credit hours.* Mr. Crofutt

55. Electricity and Magnetism.—Recitations on the mathematical theory of direct current phenomena. Given in 1932-33 and alternate years. *Two hours a week. Two credit hours.* Mr. Fitch

56. Electricity and Magnetism.—A continuation of Course 55, dealing with alternating current phenomena. Given in 1932-33 and alternate years. *Two hours a week. Two credit hours.* Mr. Fitch

58. Mathematical Physics.—The application of mathematical methods to the treatment of problems in physics. Given in 1933-34 and alternate years. *Two hours a week. Two credit hours.* Mr. Fitch

59. Sound.—Lectures and recitations. Given in 1932-33 and alternate years. *Three hours a week. Three credit hours.* Mr. Crofutt

61. Heat.—An advanced course. Given in 1933-34 and alternate years. *Three hours a week. Three credit hours.* Mr. Piston

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 1933-34 and alternate years. *Two hours a week. Two credit hours.* Mr. Piston

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 1933-34 and alternate years. *Two hours a week. Two credit hours.* Mr. Fitch

66. Vacuum Tube Laboratory.—Laboratory work with vacuum tubes covering the work of Course 65. Given in 1933-34 and alternate years. Laboratory, *two hours a week. One credit hour.* 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 1933-34 and alternate years. *Three hours a week. Three credit hours.* Mr. Crofutt

74. Optics.—An advanced course in the subject. Lectures; recitations. Mathematics 8 is a prerequisite. Given in 1932-33 and alternate years. *Two hours a week.* Mr. Piston

75. Optics Laboratory.—An advanced laboratory course in light. Given in 1932-33 and alternate years. Laboratory, *four hours a week. Two credit hours.* 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. Laboratory, *two or more hours a week. One or more credit hours.*
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. Laboratory, *four or more hours a week. Two or more credit hours.* Mr. Fitch, Mr. Crofutt

PSYCHOLOGY

Professor Dickinson; Associate Professor Brush; Assistant Professor Hatfield

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. A brief survey of the field of psychology is included. *Three hours a week.* Mr. Dickinson, Mr. Brush, Miss Hatfield

61, 62. Applied Psychology.—An introduction to general psychology followed by a consideration of the various factors influencing human efficiency: the psychology of vision and audition with emphasis on their relations to technological problems; the application of psychological methods and tests to the selection and training of workers; further applications of psychology to industry, business, advertising, salesmanship, and other fields. For Technology students in Electrical Engineering. *Three hours a week.* Mr. Brush

61a. 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. For Technology students in Mechanical Engineering. *Three hours a week.* Mr. Brush

64. Advertising.—A course designed to acquaint the student with the psychological principles involved in advertising. Opportunity is given for the practical application of these principles in the form of rewriting of advertisements appearing in newspapers and magazines, and the development of an advertising campaign in relation to an actual product. Prerequisite, Psychology 1 or permission of the instructor. *Three hours a week.*

Mr. Dickinson

65. Psychology of Childhood.—A study of the mental growth of the child to six years of age. Native equipment, environmental influences, the development of behavior patterns, speech, inference, judgment, and the like are given consideration. To illustrate the development of behavior patterns, 8000 feet of motion pictures, filmed by the instructor, are available. These films depict development in three children from six hours of age through the period of creeping and walking. Modern experimental techniques of child study are discussed. Prerequisite, Psychology 1, 2. *Three hours a week.*

Mr. Dickinson

66. Educational Psychology.—In this course certain phases of psychology which are particularly important for educational theory and practice are selected for detailed consideration. Mental inheritance, learning, memory, study methods, transfer of training, individual differences and their measurement, are among the topics taken up. Prerequisite, Psychology 1, 2. *Three hours a week.*

Mr. Brush

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 is upon the technical training, during the second semester upon the application to problems. The technical training is supplemented by readings, discussions, and lectures. Open only to a limited number of qualified students. Primarily for seniors and graduate students. Prerequisite, Psychology 1, 2. *Three 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 psychological material and to acquaint the student at first hand with the fundamental laws of the psychological organism. Prerequisite, Psychology 1, 2. *Three hours a week.*

Miss Hatfield

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. Through the courtesy and coöperation of Dr. C. J. Hedin, superintendent, clinics are conducted at the Bangor State Hospital. Attendance at the clinics

is required. In the first semester various phases of the abnormal are studied, while in the second semester the emphasis is placed upon a consideration of the normal individual. Prerequisite, Psychology 1, 2, with a grade of C or better. *Three hours a week.* Mr. Dickinson

83. Social Psychology.—In this course an attempt is made to familiarize the student with the three general trends in the study of social psychology: (1) The relations of the individual to social institutions; (2) The innate constitution of the individual as the basis of social phenomena; and (3) The present experimental methology and its results in the study of the development of social responses in the individual. Such topics as instinct, emotions, development of personality, development of language, custom, mores, legends, and propaganda are studied.

95, 96. Problems in Psychology.—Primarily for graduate students and seniors with a rank of B or better. Students intending to enter upon a problem should first consult the instructor. *Hours arranged.*

Mr. Dickinson

97, 98. Seminar in Psychology.—Advanced work for graduate students and psychology majors and minors who are interested and fitted for it. Prerequisite, permission of the instructor. *One or two hours a week*, depending upon the subject and group involved. Mr. Dickinson

PUBLIC SPEAKING

Professor Bailey; Mr. Bricker; Mr. Morris

The Department of Public Speaking offers courses in Speaking, Expression, and Dramatics as listed below:

Courses 1a and 2a are identical; Course 1a being given the first semester, Course 2a the second semester.

Course 1, 1a, or 2a is prerequisite for Course 6.

Courses 11 and 12 may be taken after Course 4 or 6.

Courses in Expression and Dramatics should be taken in the sequence given in the catalog. Course 56 may be taken after Courses 7 and 8.

Major requirements in the department consist of thirty hours.

Students may specialize primarily in Dramatics and Interpretation or in Public Speaking and Debate. Each student should select a minor subject of from fifteen to eighteen hours in one of the following departments: English, Psychology, Economics, or History. The program must form a unit and have the consent of the head of the department.

A limited number of students who have speech defects will be assisted by members of the department. No credit will be given for this instruction and only students seriously interested in improving their speech habits should apply.

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 especially emphasized. *Two hours a week.* Mr. Bricker, Mr. Morris

1a, (2a). 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, Mr. Morris

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, Mr. Morris

4a. Debating.—This is a section of Course 4 reserved primarily for students in the College of Arts and Sciences. *Two hours a week.*
Mr. Morris

6. Persuasive Speech.—After Course 1, 1a, or 2a. Persuasion is especially stressed. Review of modern speeches; short original speeches. *Two hours a week.* Mr. Bailey, Mr. Bricker, Mr. Morris

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 classroom 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. Talks from time to time by men in different sales fields. Practice in presentation. *Two hours a week.* Mr. Morris

20. Intercollegiate Debating.—The subject of this course is the University debating questions of the year. Students who have shown themselves especially proficient in debate are admitted to this course. *Two hours credit.* Special permission is required. Mr. Bricker, Mr. Morris

21. 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

24, (25). Debate Direction.—This is a special course in debate theory and technique designed for students who expect to direct debate. After Course 4 or 20 and approval of the instructor. Mr. Morris, Mr. Bricker

54. Advanced Public Speaking.—Course 21 or six hours in public speaking is prerequisite. The preparation and delivery of a public address of at least forty minutes is the major work in this course. *Two hours a week.* Mr. Bailey

Courses in Expression

7, 8. Interpretative Reading.—The reading and rendering of various selections of merit form the basis of this course. It aims to create the expression and art side of reading and speaking. *Two hours a week.* Mr. Bailey

13, 14. Shakesperean Reading.—An oral study of Shakespeare. Reading of a number of great scenes. After Course 7 and 8. *Two hours a week.* Mr. Bailey

51, 52. Reading Seminar.—The interpretation 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

56. Vocal Development.—A course designed for those interested in the voice. Aim: to improve the voice, to give ear training in distinguishing correct and defective sounds, to acquaint the student with speech defects and methods for their correction. Approach: breathing exercises, vocal exercises, nonsense dictation tests (the phonetic symbols of the International Phonetic Association are used), and lectures. *Two hours a week.* Mr. Bricker

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, Mr. Bricker, and Student Assistants

10. The Longer Play.—The study and presentation of one long and several shorter plays. *Two hours a week.*

Mr. Bailey, Mr. Bricker, and Student Assistants

15, 16. Play Production.—This course is for students who, having had Public Speaking 9 and 10, wish to continue study in play production. Plays selected to meet the needs of the class are presented in the chapel. Stress is laid upon the theory of dramatic art as well as the practical problems of production. *Two hours a week.* 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. Open only to a limited number of selected students who wish to learn how to produce plays. Special permission from the head of the department is required. *Two hours a week.*

Mr. Bailey, Mr. Bricker

SPANISH AND ITALIAN

Professor Peterson; Assistant Professor Arnold; Miss Sargent

Majors in this department are required to take History 11, 12 or 65, 66 and advised to elect both. Students with a fair knowledge of French are urged to continue the study of this language. An approved minor in Spanish consists of Courses 3, 4, 5, 6, and one additional course.

Spanish

1, 2. Elementary Spanish.—The basic principles of the grammar are studied, with attention to aural and oral practice and accurate translation. In the second semester more stress is placed upon reading. The work of different sections is somewhat differentiated. In one or two sections, taking type A work, more emphasis is laid upon acquiring the ability to express one's self in Spanish than in the others where the work done is known as type B. Credit is not given for less than a year's work to students registered in the College of Arts and Sciences. *Five hours a week.*

Mr. Peterson, Miss Arnold, Miss Sargent

1a, 2a. Elementary Spanish.—Similar to the preceding. Designed for upperclass students but open to freshmen who are taking concurrently another foreign language. Credit is not given for less than a year's work to students registered in the College of Arts and Sciences. *Three hours a week.*
Miss Arnold, Miss Sargent

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 by means of exercises based upon Spanish newspapers. Review of the grammar and translation into Spanish. *Two hours a week.*
Mr. Peterson, Miss Arnold

For courses numbered above 50, Courses 1, 2 (or 1a, 2a); 3, 4; and 5, 6 or the equivalent are a prerequisite.

51. The Spanish Novel.—Selections from representative novelists of the modern period such as Fernán Caballero, Valera, Pérez Galdós, Pardo Bazán, and Palacio Valdés form the subject of study. Collateral reading, reports, and lectures on the history of the novel. Given in 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 1933-34 and alternate years. *Three hours a week.* Miss Arnold

53, 54. Advanced Composition and Conversation.—A continuation of Courses 5 and 6. 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 1933-34 and alternate years. *Two hours a week.* Mr. Peterson

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. Given in alternate years. *Two hours a week.* Mr. Peterson

61. Spanish Classics.—A study of selections from the work of Cervantes, Lope de Vega, Calderón, and other writers of the sixteenth and seventeenth centuries. Given in 1932-33 and alternate years. *Three hours a week.* Miss Arnold

The following courses are occasionally given for special reasons instead of those listed above: 7. COMMERCIAL SPANISH, 67. SPANISH-AMERICAN LITERATURE, 70. ADVANCED SPANISH GRAMMAR, 71. OLD SPANISH.

History

65, 66. LATIN-AMERICAN HISTORY.—The colonization, formation, and development of the twenty Hispanic-American republics. Emphasis on the salient features of their civilization, problems and possibilities, and relations with the United States. Given in 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. Credit is not given for less than a year's work to students registered in the College of Arts and Sciences. *Three hours a week.*

MR. PETERSON

3, 4. MODERN ITALIAN PROSE.—For second-year students. 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

Instead of Course 4, Course 52 DANTE may be given when there is a demand for it.

ZOOLOGY

PROFESSOR YOUNG; ASSOCIATE PROFESSOR RICE; ASSISTANT PROFESSOR BEAN; MISS DARBY; MISS DOWNES; MISS CAPTAIN; MR. MENDALL

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. This course with Botany 2 may be taken to fulfill part of the Arts and Sciences science requirement. Classroom, *two hours a week;* laboratory, *four hours a week. Four credit hours.* MR. RICE, MISS DOWNES, MR. MENDALL

2. ZOOLOGY.—A course similar to Zoology 1 but adapted to the needs of home-economics students. Classroom, *two hours a week;* laboratory, *two hours a week. Three credit hours.* MR. YOUNG, MISS DOWNES

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. Classroom, *two hours a week;* laboratory, *four hours a week. Four credit hours.*

Mr. Young, Miss Bean, Miss Darby, Miss Downes, Miss Captain

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. Classroom, *two hours a week. Two credit hours.* Miss Bean

12. Human Physiology.—The anatomy, physiology, and hygiene of higher animals, especially related to man. Prerequisite, one semester of zoology or biology, not including Course 5. Required of all students in the Department of Home Economics, and open as an elective to qualified students. Classroom, *two hours a week;* laboratory, *four hours a week. Four credit hours.* Miss Bean

15. Vertebrate Zoology.—A study of the structure, origin, and history of the vertebrate organ systems. Prerequisites, Zoology 1 and Botany 2, or Zoology 3 and 4. Classroom, *two hours a week;* laboratory, *four hours a week. Four credit hours.* Miss Darby

16. Invertebrate Zoology.—A systematic study of the invertebrate animals. Prerequisites, Zoology 1 and Botany 2, or Zoology 3 and 4. Not given in 1932-33. Classroom, *two hours a week;* laboratory, *four hours a week. Four credit hours.* Mr. Young

18. Vertebrate Embryology.—A study of the development and formation of tissues, organs, and systems in vertebrates. Prerequisite, Course 15, passed with a grade of C or better. Classroom, *two hours a week;* laboratory, *four hours a week. Four credit hours.* Miss Darby

21. Biological Theories.—This course deals with those theories which have a bearing on modern thought and life. Designed especially for other than Zoology majors. Does not count toward Zoology major credit. *Two credit hours.* 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, Zoology 1 and Botany 2 or Zoology 3, 4. A year of physics is recommended. Classroom, *two hours a week;* laboratory, *four hours a week. Four credit hours.* Mr. Rice

39, 40. Mammalian Physiology.—A study of respiration, nutrition, circulation, excretion, and the propagation of the nerve impulse as coördinating mechanisms in the mammalian organization. Prerequisites, Course 15 and a year of chemistry. Classroom, *two hours a week;* laboratory, *four hours a week. Four credit hours.* Mr. Rice

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 zoology. Classroom, *one hour a week;* laboratory, *six hours a week. Three credit hours.*
Mr. Young, Miss Bean

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. Open only to Zoology majors in junior and senior years and to others upon the written approval of the instructor. Classroom, *two hours a week. Two credit hours.*
Mr. Rice

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 Zoology 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. Zoological 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 zoology. Classroom, *one hour a week. One credit hour.* The Staff

57. Teachers' Course.—A discussion of the aims and ideals of teaching and a critical analysis of the methods used in attaining these ideals in the teaching of zoological material. Emphasis is laid on both secondary-school problems and college teaching. Opportunity is provided in the laboratory for practice teaching. To be given in alternate years. Not offered in 1932. Classroom, *two hours a week;* laboratory, *one hour a week. Three credit hours.* Mr. Rice

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.

105, 106. Problems in Zoology.

111, 112. Problems in Physiology.

School of Education

FACULTY OF INSTRUCTION

Olin Silas Lutes, Ph.D., *Dean and Professor of Education*
Ava Harriet Chadbourne, Ph.D., *Associate Professor of Education*
Ernest Jackman, M.A., *Associate Professor of Education*
John Raymond Crawford, Ph.D., *Assistant Professor of Education*
Charles Lester Smith, B.A., *Instructor and Critic Teacher*
Veysey Hiram Robinson, B.Ped., *Instructor and Critic Teacher*
Grace Stetson Grant, B.A., *Critic Teacher*
Helen Louise Hathorne, B.A., *Critic Teacher*
Alice Lowe Brown, B.A., *Critic Teacher*
Sadie Jane Thompson, B.A., *Critic Teacher*
Horace Alcander Croxford, B.A., *Critic Teacher*
Caroline Ella Collins, B.A., *Critic Teacher*

Coöperating Departments of the Colleges of Arts and Sciences and Technology.

Charles Andrew Brautlecht, Ph.D., *Professor of Chemistry and Chemical Engineering*
Milton Ellis, Ph.D., *Professor of English*
George Baer Fundenburg, Ph.D., *Associate Professor of French*
Edward French Dow, M.A., *Associate Professor of History and Government*
George Davis Chase, Ph.D., *Professor of Latin*
Harley Richard Willard, Ph.D., *Professor of Mathematics*
Albert Lewis Fitch, Ph.D., *Professor of Physics*
Charles Alexius Dickinson, Ph.D., *Professor of Psychology*
Donnell Brooks Young, Ph.D., *Professor of Zoology*

GENERAL INFORMATION

The School of Education offers professional training to secondary teachers, superintendents, principals, and supervisors. Students will ordinarily enter with Junior standing, having had the first two years of work

in either a liberal arts college or a normal school. Those with a different type of training may enter as special students until Junior standing is attained.

ADMISSION

Students in the College of Arts and Sciences

Those students in the College of Arts and Sciences of the University of Maine who plan to teach are given the opportunity to transfer to the School of Education at the beginning of their junior year. Such students should take the regular course as prescribed by the College of Arts and Sciences during the freshman year. Then, instead of starting a major during the sophomore year, they should take General Psychology and choose courses which will lay a foundation for the field of concentration required for the degree in Education.

At the beginning of the sophomore year such students should register their intention to teach in the office of the Dean of the School of Education and secure his approval as well as the approval of the Dean of the College of Arts and Sciences for their courses of study.

To be admitted to the School of Education students must have made a grade of C or better in at least three-fourths of their entire work during the freshman and sophomore years.

These students will be candidates for the degree of Bachelor of Arts in Education on the completion of their program in the School of Education.

Normal School Graduates

Graduates of the two-year course in normal schools who rank in the upper half of their graduating class, and who are recommended for college work by their principal, will be admitted to the School of Education with Junior standing. These graduates will be given fifty-four semester hours of advanced credit and by carrying a full program may graduate on the completion of two years of work. This rule is subject to modification if experience should warrant it. Successful teaching experience will be taken into consideration in passing on qualifications for admission.

Graduates of three-year training courses for junior high school teachers may be admitted in the same manner and be given eighty hours of credit and Senior standing. This will make it possible to complete the requirements for graduation in a year and one or two summer sessions, depending on how heavy a program is carried.

All normal school graduates will be expected to meet the requirement of a field of concentration in academic subjects except that those who plan to enter administrative or supervisory work may be permitted to take this work in Education and Psychology. In either case any work previously taken at the normal school which lies within the field chosen will be given due credit toward the requirements.

Normal school graduates who are interested in entering the School of Education should request their principal to send a transcript of their record together with a statement giving their class rank to the Registrar of the University. These should be accompanied by a recommendation of the candidate by the principal.

Students who come from the normal schools will ordinarily be candidates for the Bachelor of Science in Education degree.

Graduates from the normal training departments of commercial schools approved by the state department of education for such work, whose ranks have placed them in the upper half of their graduating class, and who have had two years of successful teaching experience, may be admitted to the School of Education with a maximum of forty semester hours of advanced credit.

Graduates of other types of teacher-training institutions will be considered on their merits as special cases.

GRADUATION REQUIREMENTS

A total of 125 semester hours of college work is required for graduation. Of this total, 24 hours will be required in Education and Psychology, and 40 to 50 hours in the field of concentration, all of which must be carried with a grade of C or better.

In addition, three-fourths of all work counted toward a degree must be completed with a grade of C or better.

Professional Subjects Required

Ed 29 (or 30)—Practice Teaching
Ed 51, 52, 53, or 54—History of Education
Ed 59—Principles of Secondary Education
Ed 65 (or 66)—Educational Measurement
Ed 77 (or 78)—Principles and Methods of High School Teaching
Py 1, 2—General Psychology
Py 66—Educational Psychology
Special Methods (one such course to be selected in a subject within the field of concentration)

Besides these specific requirements in strictly professional subjects, students will be strongly advised to take general courses in a number of subjects of vital importance as a part of the background of any teacher or educator, such as biology, economics, English, history and government, and sociology.

Field of Concentration

In order better to meet the needs of the typical high school situation the traditional requirement of a single major subject will be replaced by that of a field of concentration in the academic subjects. This field of concentration must include a minimum of 40 to 50 semester hours in a group of related subjects commonly taught in the secondary schools, the exact amount to depend on the number and character of the subjects combined, and the quality of the work done. This work must be carried with a grade of C or better to qualify for a degree in Education.

This requirement applies to all students whether working for the Bachelor of Arts in Education or the Bachelor of Science in Education degree. However, those who have had teaching experience and who plan to enter administrative or supervisory work may be permitted to carry their field of concentration in Education and Psychology instead of academic subjects.

Combinations of subjects which occur frequently in the secondary schools are as follows:

French and Latin
English and History
Mathematics and the Natural Sciences
English and Latin
English and French
History and Latin
English, French, and Latin
English, History, and Latin
English, History, and French
History, Civics, Economics, and Sociology

Subjects which occur in a large variety of combinations are Physical Education, Music, Debating, and Dramatics. Each student will be expected to take sufficient work to attain proficiency in at least one of these fields.

RESIDENCE REQUIREMENT

A minimum of thirty semester hours of credit must be earned while in residence at the University to qualify a candidate for a degree. This re-

quirement may be met by one academic year of residence, or in case of teachers by attendance in summer sessions. Four summer sessions may be accepted as the equivalent of one academic year provided the work is of distinctly high quality. In either case, this requirement must ordinarily be met after the student has become a candidate for a degree in the School of Education.

Exceptions to these rules will not be permitted except by a vote of the faculty.

A maximum of sixteen semester hours may be earned toward a degree by extension work, of which not over eight hours may be taken by correspondence.

DEGREES

(1) Bachelor of Arts in Education. This degree shall be given to students who do the first two years of work in the College of Arts and Sciences, or the equivalent thereof, meet their entrance requirements, and their curricular requirements of ten semester hours in each of the following groups: Foreign language, mathematics and science, English, social science. Candidates for this degree will be required to complete a minimum of 40 to 50 hours in a group of related academic subjects which are commonly taught in the public schools, with a grade of C or better.

(2) Bachelor of Science in Education. This degree shall be given to students who are admitted from normal schools with advanced standing. Requirements for the degree will include a field of concentration in the academic subjects as for the B.A. degree, and the same professional courses. In meeting both these requirements, however, due credit will be given for the courses which have been previously taken in the normal school course.

PROFESSIONAL CERTIFICATES

On the successful completion of the above program students will be recommended to the State Department of Education for the Professional Secondary Certificate.

Students will be recommended for the various Special Certificates on the satisfactory completion of programs of study which have been approved by the State Department. Such programs are now under preparation in Physical Education, Music, and Junior High School Education.

Courses of Instruction

For courses in Psychology, see Department of Psychology in College of Arts and Sciences

29 (30). Supervised Student Teaching.—A course in student teaching in academic subjects. Open to a limited number of seniors recommended by the Dean of the School of Education. Preference is given to those who have completed Education 77 or 78. *Five hours a week* for nine weeks. *Two hours credit.* Mr. Jackman

51. History of Education in the United States.—Evolution of education, educational institutions, school systems and practices of the American people. Open to juniors and seniors. *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 and seniors. *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 and seniors. *Three hours a week.* Miss Chadbourne

56. History of Education of Women.—A study of the development of the education of women from the time of the Greeks to the present, with an especial emphasis on American education. Open to juniors and seniors. *Three hours a week.* Miss Chadbourne

59. 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.* Mr. Lutes

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

64. Junior High School Methods.—The course aims to present a theory of the junior high school based upon the psychology of adolescence, and to show the concrete consequences of such theory in the formation and treatment of a desirable curriculum. Open to juniors and seniors. Given in 1931-32 and alternate years. *Two hours a week.* Mr. Jackman

65 (66). Educational Measurements.—An introduction to the principles and practices underlying the various types of educational measurements. Open to juniors and seniors. *Two hours a week.* Mr. Crawford

68. Vocational and Educational Guidance.—The aim is to present to prospective teachers the general problem of guidance in junior and senior high schools, with especial reference to the vocational phase, organization for guidance, necessary materials and techniques of counseling. Open to juniors and seniors. *Three hours a week.* Mr. Jackman

70. Standard Tests and Remedial Work.—A study of representative standardized educational tests and the various administrative uses of such instruments, particularly in their relation to remedial work. A portion of the course will be devoted to a study of remedial devices. Course 65 (66) or its equivalent is prerequisite. *Two hours a week.* Mr. Crawford

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. Lutes

74. Extra-Curricular Activities in the Secondary School.—This course is designed to acquaint the prospective high-school teacher with the nature and scope of non-academic cultural and recreational activities related to the needs of adolescence, and to aid the teacher in developing a technique for their promotion, and for their correlation with the usual academic courses. Given in 1932-33 and alternate years thereafter. *Two hours a week.* Mr. Jackman

75. Teaching The Social Sciences in Secondary Schools.—The purpose of the course is to acquaint the prospective teacher of the social sciences with a point of view and vital methods of presentation that will tend

to make these subjects effective in the everyday problems of living. Geography, biology, psychology, economics, political science, ethics, history and sociology are considered, the greater emphasis being placed on the subjects likely to appear in the average high-school curriculum. Open to juniors and seniors. Given in 1933-34 and alternate years. *Two hours a week.*

MR. JACKMAN

77 (78). PRINCIPLES AND METHODS OF TEACHING IN SECONDARY SCHOOLS.—A general course in methods for prospective high-school teachers. Open to seniors and juniors who have had General Psychology. *Three hours a week.*

MR. JACKMAN

81. SUPERVISION IN THE ELEMENTARY SCHOOL.—This course will attempt to define the duties of the administrative officer of the elementary school in so far as such duties are concerned with supervision and improvement of instruction. The theory of supervision in general and specific methods of supervision of the prominent elementary-school subjects will be considered. Open to normal-school graduates, and students with teaching experience. Others by permission. *Two hours a week.*

MR. CRAWFORD

84. ADMINISTRATION OF THE ELEMENTARY SCHOOL.—A course for prospective superintendents and elementary school principals. The following topics will be considered: Origin of the elementary school, the meaning of elementary education, the place of the elementary school in our total school system, and duties of the administrative officer, such as, personnel problems, curricular and instructional material selection, time allotment, and reports. Open to normal school graduates and students with teaching experience. Others by permission. *Two hours a week.*

MR. CRAWFORD

86. SEMINAR.—A study of selected problems in education. Open only to seniors and graduate students in the School of Education. *Two hours a week.*

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 coördination. *Two hours a week.*

MISS CHADBOURNE

97, 98. CURRENT PROBLEMS IN EDUCATION.—Each student is assigned special problems in the field of education. Primarily for majors in education. Open by permission to others. Seniors only. *Two hours a week.*

MR. LUTES AND STAFF

105. METHODS OF RESEARCH IN EDUCATION.—A course in principles and techniques of educational research. Designed primarily for graduate students writing theses in education. Opportunity will be afforded to use thesis problems to illustrate the principles and techniques emphasized in the course. This course will be required of graduate students majoring in education. *Two hours a week.*

MR. LUTES

College of Technology

FACULTY OF INSTRUCTION

Paul Cloke, M.S., E.E., *Dean of the College of Technology and Director, Maine Technology Experiment Station*
Charles Partridge Weston, C.E., M.A., *Professor of Mechanics*
William Edward Barrows, B.S., E.E., *Professor of Electrical Engineering*
William Jordan Sweetser, S.B., *Professor of Mechanical Engineering*
Charles Andrew Brautlecht, Ph.D., *Professor of Chemistry and Chemical Engineering*
Embert Hiram Sprague, B.S., *Professor of Civil Engineering*
Arthur St. John Hill, E.E., M.S.E., *Professor of Electrical Engineering*
Benjamin Calvin Kent, B.S., *Professor of Engineering Drafting*
Alpheus Crosby Lyon, S.B., C.E., *Associate Professor of Civil Engineering*
Bertrand French Brann, S.M., *Associate Professor of Chemistry*
Harold Walter Leavitt, C.E., M.S., *Associate Professor of Civil Engineering*
Walter Joseph Creamer, B.S., E.E., B.A., *Associate Professor of Electrical Communication*
Paul DeCosta Bray, B.S., Ch.E., *Associate Professor of Chemistry*
Weston Sumner Evans, M.S., *Associate Professor of Civil Engineering*
Harry Dexter Watson, M.S., *Associate Professor of Mechanical Engineering*
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*
Lyle Clayton Jenness, M.S., *Assistant Professor of Chemistry*
Earl Maynard Dunham, M.A., *Assistant Professor of Engineering Drafting*
William Lester Gilliland, Ph.D., *Assistant Professor of Chemistry*
Everett Willard Davee, *Instructor in Mechanical Engineering*
Everett Joshua Felker, B.S., *Instructor in Civil Engineering*
Harry Roy Perkins, *Instructor in Mechanical Engineering*
John George Leslie Caulfield, M.S., *Instructor in Chemistry*
Kenneth Gerard Crabtree, S.B., *Instructor in Electrical Engineering*

THERON ALONZO SPARROW, B.S., *Instructor in Mechanical Engineering*
LAWRENCE LEWIS OSBORN, M.A., *Instructor in Chemistry*
EDGAR JUNIOR BOGAN, M.A., *Instructor in Chemistry*
FREDERICK JOHN GUERIN, Ph.D., *Instructor in Chemistry*
RALPH ALBERT SAWYER, B.S., *Instructor in Engineering Drafting*
LEONIDAS DACOSTA STEPHENSON, JR., B.S., *Instructor in Civil Engineering*
BERNARD FRANKLIN PARR, B.S., *Instructor in Mechanical Engineering*
WILBUR EVERETT TOMLIN, M.A., *Instructor in Chemistry*
*JOSEPH CONRAD TWINEM, S.B., *Instructor in Civil Engineering*
WARREN HERBERT BLISS, M.S., *Instructor in Electrical Engineering*
HUGH DONALD CHASE, S.M., *Instructor in Civil Engineering*
HERBERT BURR ABBOTT, *Mechanician in Mechanical Engineering*
RALPH FREEMAN BOWDEN, *Electrician in Electrical Engineering*

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
General 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

*On leave of absence, 1932-33

knowledge of both French and German. For specific requirements in these languages see the Chemical Engineering 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. Five 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*
William Edward Barrows, B.S., E.E., *Professor of Electrical Engineering*
Charles Andrew Brautlecht, Ph.D., *Professor of Chemistry and Chemical Engineering*
Embert Hiram Sprague, B.S., *Professor of Civil Engineering*
William Jordan Sweetser, S.B., *Professor of Mechanical Engineering*
Bertrand French Brann, S.M., *Associate Professor of Chemistry*
Warren Herbert Bliss, M.S., *Instructor in Electrical Engineering*
Walter Joseph Creamer, Jr., B.S., E.E., B.A., *Associate Professor of Electrical Communication*
Weston Sumner Evans, M.S., *Associate Professor of Civil Engineering*
William Lester Gilliland, Ph.D., *Assistant Professor of Chemistry*
Arthur St. John Hill, E.E., M.S.E., *Professor of Electrical Engineering*
Lyle Clayton Jenness, M.S., *Assistant Professor of Chemistry*
Horace Asa Pratt, B.S., *Assistant Engineer*
William Francis Scamman, M.A., *Editor of Bulletins*
John H. Sweatt, B.A., *Bituminous Chemist for the State Highway Commission*
Roger Lee Annis, B.S., *Highway Laboratory Assistant*
Leo Edward Day, *Highway Laboratory Assistant*
Clayton Leonard Sawyer, *Highway Laboratory Assistant*

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. Crosby Laboratory is available for researches in the fields of hydraulics, steam-engineering, gas-engineering, metallography, and strength of materials. 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. For the past three years this station has coöperated with the Maine State High-

way Department in the making of a State Highway Materials Survey. Approximately three thousand samples of sand, gravel, and rock have been located and tested for suitability for highway use.

Publications

The Station issues two series of publications: Bulletins and Papers. It has issued twenty-nine Bulletins and eleven 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., Electrical Engineering, Journal Me. Assoc'n of Engrs.

CURRICULA

FRESHMAN YEAR

Common to all engineering courses and Chemistry

Fall Semester

Subject			Hours Rec.	Lab.	Cr.
Ch	1	Gen. Chem. or Adv. Gen. Chem. 2	4		4
Eh	1	Comp. & Lit. 3	0		3
Md	1	Funds. Draft. 0	4		2
Ms	1	Trigonometry 2	0		2
Ms	3	Algebra 2	0		2
Mt	1	Military 2	1		1½
Ps	1	Mech. & Heat 4	2		5
Pt	1	Phy. Education 0	2		0
Gc	5	Orientation 1	0		½
			16	13	20

Spring Semester

Subject			Hours Rec.	Lab.	Cr.
Ch	2	Gen. Chem. or Adv. Gen. Chem. 2	4		4
Eh	2	Comp. & Lit. 3	0		3
Md	2	Ely. Mach. Draft. 0	4		2
Ms	6	Anal. Geom. 4	0		4
Mt	2	Military 2	1		1½
Ps	2	Elec., Mag., Light, and Sound 4	2		5
Pt	2	Phy. Education 0	2		0
Gc	6	Orientation 1	0		½
			16	13	20

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 mechanics, mechanical and electrical engineering, etc., while in the Chemistry curriculum, students take 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 production foremen, research chemists, chemists and engineers in industrial plants and in Federal and other government civil service laboratories, also as superintendents' assistants in metallurgical works, bleacheries, dye houses, chemical plants, rubber works, gas works, sugar refineries, pulp and paper mills, rayon plants, lacquer plants, etc.

Students interested in pulp and paper chemistry and technology pursue a chemical engineering course with some specialization in this field. Some chemical engineering students pursue advanced work and enter the fields of law, medicine, and teaching.

Option I. Regular Curriculum

FRESHMAN YEAR

Common to all engineering courses and Chemistry. See page 200.

SOPHOMORE YEAR

Fall Semester

Subject		Hours Rec.	Lab.	Cr.
Ch 31	Qual. Anal.	2	8	5
Ch 37	Hist. Chem.	1	0	1
	Foreign Lang.	5	0	5
Ms 7	Diff. Calculus	5	0	5
Mt 3	Military	2	1	2
Pb 1	Pub. Speaking	2	0	2
Pt 3	Phy. Education	0	2	0
		17	11	20

Spring Semester

Subject		Hours Rec.	Lab.	Cr.
Ch 40	Quant. Anal.	1	8	4
Ch 42	Computations	2	0	2
	Foreign Lang.	5	0	5
Me 28	Kinematics	2	0	2
Ms 8	Int. Calculus	5	0	5
Mt 4	Military	2	1	2
Ps 54	Elec. Meas.	0	3	1½
Pt 4	Phy. Education	0	2	0
		17	14	21½

JUNIOR YEAR

Fall Semester

Subject		Hours Rec.	Lab.	Cr.
Ch 51	Organ. Chem.	3	4	5
Ch 61	Adv. Quant. Anal.	1	8	4
Ch 71a	Phys. Chem.	3	0	3
	Foreign Lang. or Economics	3	0	3
Mn 51	Mechanics	5	0	5
		15	12	20

Spring Semester

Subject		Hours Rec.	Lab.	Cr.
Ch 52	Organ. Chem.	3	4	5
Ch 54	Appl. of Chem.	1	0	1
Ch 72a	Phys. Chem.	3	0	3
Ch 74	Phys. Ch. Lab.	0	4	2
Ee 30	Dir. Cur. Mchy.	2	0	2
	Foreign Lang. or Economics	3	0	3
Mn 52	Mechanics	5	0	5
		17	8	21

SENIOR YEAR

Subject		Hours Rec.	Lab.	Cr.
Ch 77	Ind. Chem.	3	0	3
Ch 93	Economics of Ch. and Ch.E.	1	0	1
Ch 95	Electrochem.	3	0	3
Ee 31	Alt. Currents	2	0	2
Ee 33	Elec. Lab.	0	3	1½
Eh 5	Tech. Comp.	2	0	2
Gm 15	Sci. German or			
Ce 17	Gen. Geol.	2	0	2
Me 83	Heat Eng.	3	0	3
		16	3	17½

Subject		Hours Rec.	Lab.	Cr.
Ch 78	Ind. Chem.	3	0	3
Ch 80	Inspect. Trips	0	2	1
Ch 94	Economics of Ch. and Ch.E.	1	0	1
Ch 96	Electrochem.	3	0	3
Ch 100	Thesis, optional	Arr		
Eh 10	Modern Lit.	2	0	2
Me 76	Mech. Lab.	0	3	1½
Me 98	Management	2	0	2
		11	5	13½

Students in Chemistry and Chemical Engineering should be able 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 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 200.

SOPHOMORE YEAR

Same as Chemical Engineering

JUNIOR YEAR

Fall Semester					*Spring Semester*				
Subject		Hours			Subject		Hours		
		Rec.	Lab.	Cr.			Rec.	Lab.	Cr.
Bt 43	Wood Iden.	0	3	1	Ch 52	Organ. Chem.	3	4	5
Ch 51	Organ. Chem.	3	4	5	Ch 54	Appl. of Chem.	1	0	1
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 Economics	3	0	3	Ch 74	Phys. Chemical Methods	0	4	2
Mn 51	Mechanics	5	0	5	Ee 30	Dir. Cur. Machy.	2	0	2
					Mn 52	Mechanics	5	0	5
		16	11	21			16	12	22

SENIOR YEAR

Subject		Hours			Subject		Hours		
		Rec.	Lab.	Cr.			Rec.	Lab.	Cr.
Ch 75	Microscopy	0	3	1½	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. 9 wks.	0	8	2
Ch 93	Economics of Ch. and Ch.E.	1	0	1	Ch 86	Pulp Bleach. 9 wks.	0	8	2
Ee 31	Alt. Currents	2	0	2					
Ee 33	Elec. Lab.	0	3	1½	Ch 94	Economics of Ch. and Ch.E.	1	0	1
Eh 5	Tech. Comp.	2	0	2					
Gm 15	Sci. German or				Ch 100	Thesis	Arr		
Ce 17	Gen. Geol.	2	0	2	Eh 10	Modern Lit.	2	0	2
Me 83	Heat Eng.	3	0	3	Me 76	Mech. Lab.	0	3	1½
					Me 98	Management	2	0	2
		13	10	18			8	21	14½

Chemistry Curriculum

This curriculum is designed to give the student not only a thorough 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. Some graduates also pursue advanced studies and enter the fields of law and medicine.

FRESHMAN YEAR

Common to all engineering courses and Chemistry. See page 200.

SOPHOMORE YEAR

Fall Semester

Subject		Hours Rec.	Lab.	Cr.
Ch 31	Qual. Anal.	2	8	5
Ch 37	Hist. Chem.	1	0	1
	Foreign Lang.	5	0	5
Ms 7	Diff. Calculus	5	0	5
Mt 3	Military	2	1	2
Pt 3	Phy. Education	0	2	0
Pb 1	Pub. Speaking	2	0	2
		17	11	20

Spring Semester

Subject		Hours Rec.	Lab.	Cr.
Ch 40	Quant. Anal.	1	8	4
Ch 42	Computations	2	0	2
Ch 48	Mineral & Crys.	2	2	3
	Foreign Lang.	5	0	5
Ms 8	Int. Calculus	5	0	5
Mt 4	Military	2	1	2
Pt 4	Phy. Education	0	2	0
		17	13	21

JUNIOR YEAR

Fall Semester

Subject		Hours Rec.	Lab.	Cr.
Bv 1	Bacteriology 0	6		3
Bv 3	Bacteriology 2	0		2
Ch 51	Organ Chem.....3	4		5
Ch 61	Adv. Quant. Anal. 1	8		4
Ch 71b	Phys. Chem.....3	0		3
	Foreign Lang. or Economics 3	0		3
		12	18	20

Spring Semester

Subject		Hours Rec.	Lab.	Cr.
Ch 52	Organ. Chem.....3	4		5
Ch 54	Appl. of Chem...1	0		1
Ch 62	Tech. Anal. 1	8		4
Ch 72b	Phys. Chem.....3	0		3
Ch 74	Phys. Chemical Methods 0	4		2
Eh 10	Mod. Lit.....2	0		2
	Foreign Lang. or Economics 3	0		3
		13	16	20

SENIOR YEAR

Subject		Hours Rec.	Lab.	Cr.
Bc 51	Biochem. 3	0		3
Ch 77	Ind. Chem. 3	0		3
Ch 89	Organ. Anal. 0	4		2
Ch 91	Adv. Organ. Ch...3	0		3
Ch 93	Economics of Ch. and Ch.E. 1	0		1
Ch 97	Teaching Chem. ..1	0		1
Ch 99	Thesis .....Arr			
Eh 5	Tech. Comp.....2	0		2
Es 55	Business Law.....3	0		3
Gm 15	Sci. German or			
Ce 17	Economic Geol....2	0		2
		18	4	20

Subject		Hours Rec.	Lab.	Cr.
Ch 78	Ind. Chem.....3	0		3
Ch 80	Inspect. Trips...0	2		1
Ch 84	Metallurgy 3	0		3
Ch 90	Organ. Prep.....0	4		2
Ch 92	Adv. Organ. Chemistry 3	0		3
Ch 94	Econ. of Chem...1	0		1
Ch 98	Teaching Chem. 1	0		1
Ch 100	Thesis, optional..Arr			
		11	6	14

Civil Engineering Curriculum

The object of the curriculum in Civil Engineering is to give the student as thorough 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.

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 200.

SOPHOMORE YEAR

Fall Semester

Subject	Hours Rec.	Lab.	Cr.
Ce 1 Surveying	3	0	3
Ce 3 Field Work and Plotting	0	9	3
Es 1b Prin. of Econ.	2	0	2
Md 3 Des. Geometry	0	6	2
Ms 7 Diff. Calculus	5	0	5
Mt 3 Military	2	1	2
Pb 1 Pub. Speaking	2	0	2
Pt 3 Phy. Education	0	2	0
	14	18	19

Spring Semester

Subject	Hours Rec.	Lab.	Cr.
Ce 4 Field Work, 6 wks.	0	9	1
Ce 16 Geol. for Eng.	2	0	2
Ce 32 Sanitary Eng.	2	0	2
Es 2b Prin. of Econ.	2	0	2
Ms 8 Int. Calculus	5	0	5
Mt 4 Military	2	0	2
Pb 4 Debate	2	0	2
Ps 52 Mech. & Heat	0	4	2
Pt 4 Phy. Education	0	2	0
	15	15	18

JUNIOR YEAR

Subject	Hours Rec.	Lab.	Cr.
As 11 Pract. Astron.	2	0	2
Ce 9 R.R. Curves & Earthwork	3	0	3
Ce 21 R.R. Field & Office Work	0	6	2
Ce 25 Eng. Geology	2	2	3
Ce 29 Highway Const.	2	0	2
Mn 51 Mechanics	5	0	5
Elective	3	0	3
	17	8	20

Subject	Hours Rec.	Lab.	Cr.
Ce 20 Structural & Highway Materials	1	4	3
Ce 22 Adv. Surveying	1	0	1
Ce 24 Junior Fld. Work 6 dys.	0	9	1
Ce 26 Hydraulics	3	0	3
Ce 28 Theory of Structures	5	0	5
Mn 52 Mechanics	5	0	5
Elective	2	0	2
	17	13	20

SENIOR YEAR

Fall Semester				*Spring Semester*			
Subject	Hours Rec.	Lab.	Cr.	Subject	Hours Rec.	Lab.	Cr.
Ce 57 Conc. Structures & Foundations	5	0	5	Ce 60 Drafting	0	6	2
Ce 59 Drafting	0	9	3	Ce 98 Thesis, or equal	Arr		3
Ce 97 Thesis, or equal	Arr		3	Ee 36 Alt. Currents	2	0	2
Ee 35 D. C. Machy	2	0	2	Ee 38 Elec. Lab	0	3	1½
Me 73 Mech. Lab	0	3	1½	Eh 6 Tech. Comp	2	0	2
				Es 16 Business Law	3	0	3
Highway Option				Highway Option			
Ce 53 Hyd. Fld. Work	0	2	1	Ce 68 Highway Design	0	4	2
Ce 63 Highway Econ.	3	0	3	Ce 72 Highway Eng.	2	0	2
Hydraulic Option				Hydraulic Option			
Ce 51 Hyd. Fld. Work	0	4	2	Ce 56 Hyd. Eng.	0	4	2
Ce 55 Hydrology	2	0	2	Me 78 Hyd. Lab.	0	3	1½
Railroad Option				Railroad Option			
Ce 53 Hyd. Fld. Work	0	2	1	Ce 64 R.R. Design	0	4	2
Ce 65 R.R. Econ.	3	0	3	Ce 66 R.R. Eng.	2	0	2
Sanitary Option				Sanitary Option			
Bv 3 Bacteriology	2	0	2	Bv 4 Bacteriology	0	6	3
Ce 71 Water Supply	2	0	2	Ce 74 Sanitary Eng.	2	0	2
Total Required	*	*	18½		*	*	17½

*Depends upon Option chosen

Electrical Engineering Curriculum

This curriculum is intended to provide the student with a thorough 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 trans-

forming electrical energy into mechanical energy for the various commercial requirements.

Courses in telephone and radio engineering are offered. These aim to provide the student with a thorough understanding of the basic principles of electrical communication, and to familiarize him with the design and operating characteristics of communication systems and component apparatus. Electrical reproduction of sound for motion pictures is also treated, with some emphasis on architectural acoustics, speech, and hearing. Basic work in television and the industrial applications of vacuum tubes is made a part of the laboratory work of the department.

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 a 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 humanistic studies enumerated below.

FRESHMAN YEAR

Common to all engineering courses and Chemistry. See page 200.

SOPHOMORE YEAR

Fall Semester

Subject			Hours Rec.	Lab.	Cr.
Ee	1	Els. Elec. Eng.	3	2	4
Es	1b	Prin. of Econ.	2	0	2
Md	3	Des. Geometry	0	6	2
Ms	7	Diff. Calculus	5	0	5
Mt	3	Military	2	1	2
Pb	1	Pub. Speaking	2	0	2
Py	61	App. Psychology	3	0	3
Pt	3	Phy. Education	0	2	0
			17	11	20

Spring Semester

Subject			Hours Rec.	Lab.	Cr.
Ee	2	Els. Elec. Eng.	3	2	4
Es	2b	Prin. of Econ.	2	0	2
Md	4	Adv. Mach. Drafting	0	6	2
Ms	8	Int. Calculus	5	0	5
Mt	4	Military	2	1	2
Pb	4	Debate	2	0	2
Py	62	App. Psychology	3	0	3
Pt	4	Phy. Education	0	2	0
			17	11	20

JUNIOR YEAR

Fall Semester Subject	Hours Rec.	Lab.	Cr.	*Spring Semester* Subject	Hours Rec.	Lab.	Cr.
Ee 13 Elec. Testing	1	2	2	Ee 16 El. Cir. & Mach.	4	0	4
Ee 15 El. Cir. & Mach.	3	0	3	Ee 18 Elec. Lab.	1	3	2½
Ee 17 Elec. Lab.	1	3	2½	Ee 22 Tel. Com.	3	0	3
Eh 5 Tech. Comp.	2	0	2	Ee 24 Tel. Lab.	0	3	1½
Es 53 Money & Banking	3	0	3	Me 10 Machine Work	0	4	1½
or				or			
Me 9 Machine Work	0	4	1½	Ms 54 Adv. Calculus	3	0	3
or				or			
Ms 53 Adv. Calculus	3	0	3	Ms 56 Diff. Equations	3	0	3
Me 27 Kinematics	3	0	3	Me 84 Heat Eng.	3	0	3
Mn 53 Mechanics	2	0	2	Mn 54 Mechanics	3	0	3
	15	9	19		14	10	18½

SENIOR YEAR

Subject	Hours Rec.	Lab.	Cr.	Subject	Hours Rec.	Lab.	Cr.
Ee 51 Alt. Cur. Appar.	5	0	5	Ee 78 Inspec. Trip	0	0	0
Ee 75 Elec. Lab.	1	3	2½	Options			
Me 85 Heat. Eng.	3	0	3	(Six subjects required)			
Options				Ee 54 Tech. Reviews	0	2	1
(Two subjects required)				Ee 56 Elec. Power Plants	3	0	3
Ee 61 Illum. Eng.	3	0	3	Ee 58 Elec. Transm.	2	3	3
Ee 63 Elec. Transp.	3	0	3	Ee 60 Adv. Elec. Mach.	3	0	3
Ee 81 Comm. Eng.	2	3	3	Ee 76 Elec. Lab.	1	3	2½
Ee 83 Comm. Lab.	0	3	1½	Ee 84 Tel. Transm.	1	3	2
Ee 85 Radio Eng.	2	0	2	Ee 86 Radio Eng.	3	0	3
Ee 91 Theory of Elect.	2	0	2	Ee 88 Radio Lab.	0	3	1½
Es 45 Corp. Finance	3	0	3	Ee 90 Thesis	Arr		3
Me 77 Mech. Lab.	0	3	1½	Ee 92 Theory of Elect.	2	0	2
				Es 16 Business Law	3	0	3
				Me 98 Management	2	0	2
	14	6	17		13	8	16½

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 Mechanical 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.

Thorough instruction is given in the theory and operation of both direct and alternating current electrical machinery, with ample practice in the electrical laboratory. 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 200.

SOPHOMORE YEAR

Fall Semester

Subject	Hours Rec.	Lab.	Cr.
Es 1b Prin. of Econ.	2	0	2
Md 3 Des. Geometry	0	6	2
Me 1 Foundry & Forging	0	6	2
Me 21 Els. Mech. Eng.	2	0	2
Ms 7 Diff. Calculus	5	0	5
Mt 3 Military	2	1	2
Pb 1 Public Speaking	2	0	2
Ps 51 Mech. & Heat	0	4	2
Pt 3 Phy. Education	0	2	0
	13	19	19

Spring Semester

Subject	Hours Rec.	Lab.	Cr.
Es 2b Prin. of Econ.	2	0	2
Md 4 Adv. Mach. Drafting	0	6	2
Me 2 Pattern Work	0	6	2
Me 38 Mech. Lab.	0	3	1½
Me 52 Materials of Eng.	2	0	2
Ms 8 Int. Calculus	5	0	5
Mt 4 Military	2	1	2
Pb 4 Debate	2	0	2
Pt 4 Phy. Education	0	2	0
	13	18	18½

JUNIOR YEAR

Subject	Hours Rec.	Lab.	Cr.
Es 21 Economics or Option	3	0	3
Me 7 Machine Work	0	6	2
Me 55 Kinematics	3	3	4
Me 69 Mech. Lab.	0	3	1½
Me 79 Heat Eng.	3	0	3
Mn 51 Mechanics	5	0	5
	14	12	18½

Subject	Hours Rec.	Lab.	Cr.
Eh 6 Tech. Comp.	2	0	2
Me 8 Machine Work	0	6	2
Me 66 Machine Design	2	3	3
Me 70 Mech. Lab.	0	3	1½
Me 80 Heat. Eng.	3	0	3
Me 82 Heat Power	3	0	3
Mn 52 Mechanics	5	0	5
	15	12	19½

SENIOR YEAR

Fall Semester				*Spring Semester*			
Subject		Hours		Subject		Hours	
		Rec.	Lab.	Cr.		Rec.	Lab.	Cr.
Ce 35	Hydraulics	2	0	2	Ee 36	Alt. Currents	2	0	2
Ee 35	D. C. Machy.	2	0	2	Ee 38	Elec. Lab.	0	3	1½
Me 71	Mech. Lab.	0	3	1½		Inspect. Trip	0	0	0
Me 81	Heat Eng.	3	0	3	Me 72	Mech. Lab.	0	3	1½
Me 87	Machine Design	0	6	2	Me 86	Power Plants	3	0	3
Me 91	Heat & Vent.	2	0	2	Me 88	Dynamics of Machines	2	3	3
Me 93	Gas Engines	3	0	3	Me 96	Seminar	1	0	1
Py 61	App. Psychol. (or Option)	3	0	3	Me 98	Management	2	0	2
					Me 100	Thesis	Arr		3
		14	12	18½			10	9	17

General Engineering Curriculum

The primary purpose of this course is to afford an opportunity to a selected few outstanding students to develop themselves along certain specific lines, not afforded by the other engineering curricula, in which they have great interest or are particularly capable. Opportunity is afforded for electives in economics, engineering, foreign languages, history, mathematics, physics, psychology, etc. In the junior year engineering or scientific studies would be elected, all of which would bear on some particular branch of engineering or have some functional objective such as design or research or management according to the leaning or capability of the candidate. The Dean of the College is the adviser and registering officer for students in this course.

FRESHMAN YEAR

Common to all engineering courses and Chemistry. See page 200.

SOPHOMORE YEAR

Fall Semester

Subject	Hours Rec.	Lab.	Cr.
Ch 31 Qual. Anal.	2	8	5
Es 1b Prin. of Econ.	2	0	2
Md 3 Desc. Geometry	0	6	2
Ms 7 Diff. Calculus	5	0	5
Mt 3 Military	2	1	2
Pt 3 Phy. Education	0	2	0
Zo 21 Biology	2	0	2
	13	17	18

Spring Semester

Subject	Hours Rec.	Lab.	Cr.
Ce 16 Geology	2	0	2
Ch 40 Quan. Anal.	1	8	4
Ch 84 Metallurgy	3	0	3
Es 2b Prin. of Econ.	2	0	2
Ms 8 Int. Calculus	5	0	5
Mt 4 Military	2	1	2
Pt 4 Phy. Education	0	2	0
	15	11	18

JUNIOR YEAR

Subject	Hours Rec.	Lab.	Cr.
Ee 1 Els. Elec. Eng.	3	2	4
Me 79 Heat Eng.	3	0	3
Mn 51 Mechanics	5	0	5
Elective			6
			18

Subject	Hours Rec.	Lab.	Cr.
Ee 2 Els. Elec. Eng.	3	2	4
Me 80 Heat Eng.	3	0	3
Mn 52 Mechanics	5	0	5
Elective			6
			18

SENIOR YEAR

Subject	Hours Rec.	Lab.	Cr.
Elective			19
			19

Subject	Hours Rec.	Lab.	Cr.
Inspect. Trip	0	0	0
Thesis			Arr
Elective			18
			18

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 PROFESSOR BRAY; ASSISTANT PROFESSOR OTTO; ASSISTANT PROFESSOR JENNESS; MR. CAULFIELD; DR. GILLILAND; MR. OSBORN; DR. GUERIN; MR. BOGAN; MR. TOMLIN

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 1a, 2a constitute the first year's work in chemistry. *Four credit hours.* MR. BRAUTLECHT AND MEMBERS OF THE DEPARTMENT STAFF

1a, 2a. ADVANCED GENERAL CHEMISTRY.—A course similar to Courses 1, 2, but for students who have had a thorough course in elementary chemistry. To enroll in Courses 1a and 2a a student must, shortly after reporting with the Chemistry 1 group with whom the student is registered, 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. BRAUTLECHT AND MEMBERS OF THE DEPARTMENT STAFF

5, 6. GENERAL CHEMISTRY.—This course is similar to Courses 1, 2, the sections pertaining to proteins, fats, carbohydrates, etc., being omitted. *Four credit hours.*

MR. BRAUTLECHT AND MEMBERS OF THE DEPARTMENT STAFF

31. Qualitative Analysis.—This course includes a thorough 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, *eight hours a week. Five credit hours.* Mr. Otto

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. Classroom, *one hour a week;* laboratory, *eight hours a week. Four credit hours.* Mr. Otto

42. Chemical and Engineering Computations.—Computation procedures employed by chemists and chemical engineers, including use of slide rule, logarithms, etc. Lectures and recitations, *two hours a week. Two credit hours.* Mr. Otto, Mr. Jenness

48. Mineralogy and Crystallography.—Prerequisite, Chemistry 31. Classroom, *two hours a week;* laboratory, *two hours a week. Three credit hours.* Mr. Bogan

51, 52. Organic Chemistry.—Lectures, recitations, and laboratory work. Course 31 is prerequisite. For juniors. Classroom, *three hours a week;* laboratory, *four hours a week. Five credit hours.*
Mr. Gilliland, Mr. Osborn

54. General Applications of Chemistry.—Lecture course. Notes required. Lecture, *one hour a week. One credit hour.* Staff

61. Advanced Quantitative Analysis.—A study of calibration methods, the further application of volumetric methods, etc. Course 40 is a prerequisite. Classroom, *one hour a week;* laboratory, *eight hours a week. Four credit hours.* Mr. Brann, Mr. Bogan

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. Classroom, *one hour a week;* laboratory, *eight hours a week. Four credit hours.* Mr. Brann, Mr. Bogan

64. Sanitary Chemistry.—For civil engineering students taking the Sanitary Engineering option. Fundamental topics of water purification and waste disposal. Lectures and recitations, *three hours a week. Three credit hours.*

65. Pulp Technology.—A lecture course on the manufacture of pulp and the chemical engineering involved in present-day pulp making. Course 40 is a prerequisite. Classroom, *two hours a week. Two credit hours.*

Mr. Bray

66. Paper Technology.—A lecture course on the processes of manufacturing paper. Course 65 is prerequisite. Classroom, *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, using semi-commercial equipment. 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. Classroom, *three hours a week. Three credit hours.* Mr. Brann

71b, 72b. Physical Chemistry.—Similar to 71a, 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 through 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, 76. Chemical Microscopy.—Prerequisites, Courses 40 and 74. Laboratory, *three hours a week. One and one-half credit hours.* Mr. Otto

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 the engineering procedure employed. 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 prerequisite. Classroom, *three hours a week. Three credit hours.*

MR. GUERIN

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. Boston trip, *no credit;* local trips, *one credit hour.* MR. BRAUTLECHT, MR. BRAY, MR. GUERIN

82. PAPER COLORING.—Course 75 is prerequisite. Laboratory, *eight hours a week for first nine week. Two credit hours.*

MR. BRAY, MR. CAULFIELD

84. METALLURGY.—An introductory study dealing with iron, steel, and the common metals and alloys. Classroom, *three hours a week. Three credit hours.* MR. GUERIN

85. CELLULOSE.—A laboratory course dealing with the characteristics and derivatives of cellulose. Laboratory, *four hours a week. Two credit hours.* MR. CAULFIELD

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. Courses 65 and 67 are 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 carried on 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 40 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

93, 94. Economics of Chemical and Chemical Engineering Industries and Activities.—*One hour a week.* Mr. Brautlecht

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. Jenness

97, 98. Methods of Teaching Chemistry.—Course 31 is a prerequisite. Administration, supervision, costs, discipline, subject matter, questioning, the project method, true and false question tests, 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. Classroom, *one hour a week. One credit hour.* Mr. Brautlecht

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 or Mr. Gilliland

103, 104. Investigations in Physical Chemistry.
Mr. Brann, Mr. Jenness

105, 106. Investigations in Pulp and Paper Chemistry and Technology. Mr. Bray

107, 108. Investigations in Analytic Chemistry.
Mr. Brann, Mr. Otto

109, 110. Microchemical Investigations. Mr. Otto

111, 112. Investigations in Cellulose Chemistry. 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 taking chemical laboratory courses 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 chemistry, see section devoted to the College of Arts and Sciences.

CIVIL ENGINEERING

PROFESSOR SPRAGUE; ASSOCIATE PROFESSOR LYON; ASSOCIATE PROFESSOR LEAVITT; ASSOCIATE PROFESSOR EVANS; MR. FELKER; MR. STEPHENSON; MR. TWINEM

1. PLANE SURVEYING.—Recitations and lectures covering the general theory of plane surveying and plotting. A study of surveying instruments, their adjustments and use, followed by a study of the methods commonly used for surveying and plotting. Required of all students in the Department of Civil Engineering. Classroom, *three hours a week. Three credit hours.* MR. FELKER, MR. STEPHENSON

3. FIELD WORK AND PLOTTING.—This course consists of practice in the use of the chain, tape, compass, transit, and level, followed by practice in the common methods of map drawing. Field and drawing room, *nine hours a week. Three credit hours.* MR. FELKER, MR. STEPHENSON

4. FIELD WORK IN SURVEYING.—A continuation of Course 3. This course consists of original surveys, laying out railroad curves, problem work, and note keeping. Courses 1 and 3 are prerequisites. Field work, *nine hours a week* for last six weeks. *One credit hour.* MR. FELKER, MR. STEPHENSON

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. Classroom, *three hours a week. Three credit hours.* MR. EVANS

16. GEOLOGY FOR ENGINEERS.—An introductory course to Engineering Geology covering a study of the various dynamical and geological agents involved in the modification of the outer surface of the earth. Classroom, *two hours a week. Two credit hours.* MR. TWINEM

17. GENERAL GEOLOGY.—A basic course pertaining to the study of the earth materials, its structure, and the agencies and processes that are shaping

and modifying its surface both dynamically and physiographically. Special attention is directed to local geology, glaciation, and physiography as it occurs in Maine and New England. Collateral reading. No prerequisites. Classroom, *two hours a week. Two credit hours.* Mr. Twinem

20. Structural and Highway Materials.—Laboratory and recitations covering the methods of testing, characteristics of and specifications for the materials commonly used for structural and highway purposes. Classroom, *one hour a week;* laboratory, *four hours a week. Three credit hours.*
Mr. Leavitt, Mr. Sprague, Mr. Felker, Mr. Stephenson

21. Railroad Field and Office Work.—The first part of this course consists of making preliminary and location surveys for a railroad about two miles long. Grades are established and slope stakes set. The latter part of the course consists of plotting the notes previously taken and calculating the requisite amount of earthwork. Courses 1, 3 and 9 or 27 are prerequisite. *Six hours a week. Two credit hours.* Mr. Lyon, Mr. Twinem

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 and sextant, the theory and application of least squares, and map projection. It is a preparation for Course 24. Course 21 is prerequisite. Lecture, recitation, and problems, *one hour a week. One credit hour.* Mr. Lyon

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

25. Engineering Geology.—An intense megascopic study and classification of the common rocks and rock minerals of paramount importance to the engineer and their identification in the field, combined with a map-reading course to study the characteristics and development of land forms and the methods of interpretation of topographic maps. The relation of geology to the engineer and his work is kept constantly in mind. Prerequisite, Course 16. Classroom, *two hours a week;* laboratory or field, *two hours a week. Three credit hours.* Mr. Twinem

26. Hydraulics.—Fundamental data; hydrostatics; theoretical hydraulics; instruments and observations; theoretical and actual flow through orifices, weirs, tubes, pipes, and conduits; dynamic pressure of water. Prerequisite, Mechanics 51. Classroom, *three hours a week. Three credit hours.*
Mr. Lyon

27. Railroad 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 Course 21. Courses 1 and 3 are prerequisites. Lecture, *one hour a week. One credit hour.*

Mr. Leavitt

28. Theory and Design of Steel Structures.—This course involves the determination of stresses and strain in beams, girders, and trusses under the usual systems of loading. Students are required to make a complete design of several types of structures. Mechanics 51 is prerequisite. *Five hour a week. Five credit hours.* Mr. Evans

29. Highway Construction.—The construction and maintenance of city pavements and country roads under various conditions of traffic, climate, soil, etc. Courses 1, 9, and 21 are prerequisite. Recitation, *two hours a week. Two credit hours.* Mr. Leavitt

32. Sanitary Engineering.—The general principles of sewer design and construction, and sewage disposal; a study of city sanitation. Classroom, *two hours a week. Two credit hours.* Mr. Sprague

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. Classroom, *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

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. Classroom, *two hours a week. Two credit hours.* Mr. Lyon

56. Hydraulic Engineering.—A continuation of Course 51 and 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

57. Concrete Structures and Foundations.—This course covers the design and construction of plain and reinforced concrete structures with due consideration for preparing the foundation to receive such structures. Mechanics 51 is prerequisite. *Five hours a week. Five credit hours.*

Mr. Evans

59. Drafting.—This course consists of detailing the structures designed in Course 28. Drawing room, *nine hours a week. Three credit hours.*

Mr. Sprague

60. Drafting.—The structures designed in Course 57 are detailed in this course. *Six hours a week. Two credit hours.* Mr. Sprague

63. Highway Economics.—State highway and municipal highway management as they affect organization, administration, and finance of streets and highways; economic factors of highway location, design, and operation; traffic and operation expenses. Required of students electing Option 3. *Three hours a week. Three credit hours.* Mr. Leavitt

64. Railroad Design.—This course consists of designing and estimating the cost of an industrial siding, a grade separation, and a temporary trestle. The remaining time is spent on yard layout work. Courses 9 and 65 are prerequisites. Drawing room, *four hours a week. Two credit hours.*

Mr. Evans

65. Railroad Economics.—This course is devoted to a study of the railroad corporation, its rights and duties; economics of railroad location and operation; the locomotive and its work, as affected by distance, curves, and grades. Required of students electing Option 2. Courses 9 and 21 are prerequisites. *Three hours a week. Three credit hours.* Mr. Sprague

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 65 is prerequisite. Classroom, *two hours a week. Two credit hours.* Mr. Evans

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 32 is prerequisite. Required of students electing Option 4. Classroom, *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. Classroom, *two hours a week. Two credit hours.* MR. LEAVITT

74. SANITARY ENGINEERING.—Lectures and recitations dealing with municipal and rural sanitation. Sanitation of swimming pools. Sanitation of milk and other foods. Collection and disposal of refuse. Control of mosquitoes, flies, and rodents. Course 32 is prerequisite. Required of students electing Option 4. Classroom, *two hours a week. Two credit hours.* MR. SPRAGUE

80. STRUCTURAL GEOLOGY.—A study of the principles and theories of earth diastrophism and rock formation and how these conditions and processes of the earth's interior affect the material and structure of the earth. The development of the types of structures found in rocks, the mechanics of their origin, interpretation, and their application to the solution of other geologic problems. Prerequisites, Courses 16 and 25. Classroom, *two hours a week. Two credit hours.* MR. TWINEM

82. ADVANCED ENGINEERING GEOLOGY.—The study and application of geology to the engineering phases of construction problems. Such subjects as river improvement, shore line protection, ground water, quarrying, earthquakes, dams and reservoirs will be considered. A part of the work includes presentation and discussions of reports. Prerequisites, Courses 16 and 25. Classroom, *three hours a week. Three credit hours.* MR. TWINEM

INSPECTION TRIP.—A visiting trip of about one week's duration to various manufacturing and power plants. Required of seniors.

97, 98. THESIS WORK.—The study of and report upon some original investigation or design. *Time to be arranged.* See regulations regarding degrees. *Three credit hours.* MR. SPRAGUE

100. THEORY OF STRUCTURES.—This course involves the determination of stresses in statically indeterminate structures. It is a continuation of Course 28 and is open only to those men who have passed that course or its equivalent satisfactorily. Classroom, *three hours a week. Three credit hours.* MR. EVANS

ELECTRICAL ENGINEERING

PROFESSOR BARROWS; PROFESSOR HILL; ASSOCIATE PROFESSOR CREAMER; ASSISTANT PROFESSOR ROBERTS; MR. CRABTREE; MR. BLISS

1, 2. ELEMENTS OF ELECTRICAL ENGINEERING.—Fundamental laws and principles of electricity; series and parallel circuits; the magnetic circuit; dielectric circuit; conduction through electrolytes and gases; thermionics; electrical instruments; electrical measurements. Recitations and problems. Classroom, *three hours a week;* laboratory, *two hours a week. Four credit hours.* MR. BARROWS, MR. BLISS

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. Classroom, *one hour a week;* laboratory, *two hours a week. Two credit hours.*

MR. CREAMER, MR. BLISS

15, 16. ELECTRIC CIRCUITS AND MACHINERY.—Fundamental theory of sinusoidal alternating currents, including representation by vectors and solutions by trigonometric and algebraic methods. Underlying principles and circuit problems common to all types of electrical apparatus; design and performance of direct-current machinery. Theory of polyphase alternating-current systems, non-sinusoidal wave forms, and electrical transmission. Introduction to the analysis of transient phenomena. Lectures, recitations, and problems. Course 2 is prerequisite. Fall semester: classroom, *three hours a week. Three credit hours.* Spring semester: classroom, *four hours a week. Four 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. Classroom, *one hour a week;* laboratory, *three hours a week. Two and one-half credit hours.* MR. CRABTREE

22. TELEPHONE COMMUNICATION.—Characteristics of speech: the hearing mechanism; mechanical and electrical characteristics of telephone apparatus; the subscriber's set; common battery and local battery circuits; dial systems; repeaters; traffic studies. Lectures and recitations. Course 15 is prerequisite. Course 24 is required concurrently. Classroom, *three hours a week. Three credit hours.* MR. BLISS

24. TELEPHONE LABORATORY.—Microphonic efficiency of telephone apparatus; measurements of articulation, and audition; local and common bat-

tery systems; phantom circuits; filters; transmission testing; vacuum tubes. Course 22 is required concurrently. Course 13 is prerequisite. Laboratory, *three hours a week. One and one-half credit hours.*

MR. CREAMER, MR. BLISS

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. Classroom, *two hours a week. Two credit hours.*

MR. ROBERTS, 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. Classroom, *two hours a week. Two credit hours.* MR. ROBERTS, MR. CRABTREE

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, MR. CRABTREE

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. Classroom, *five hours a week. Five 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 or 81 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. Classroom, *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. Classroom, *two hours a week;* computation, *three hours a week. Three credit hours.* MR. ROBERTS

60. Advanced Electrical Machinery.—Analysis of windings and magnetic circuits of electric power apparatus. Advanced problems on flux distribution, commutation, heat paths, air flow, and mechanical stresses. Design of alterating-current machinery. Predetermination of performance characteristics. Lectures and problems. Course 51 is prerequisite. Classroom, *three hours a week. Three 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. Classroom, *three hours a week. Three credit hours.* Mr. Barrows

63. Electrical Transportation.—Mechanics of vehicle movement; estimates of power and energy requirements of trains and other transportation units. Principles governing the selection and design of electric motive power equipment for railways, busses, elevators, and ships. Distribution of power to moving loads. Engineering and economic problems involved in steam-railroad electrification. Elements of railway signaling. Lectures, recitations, and problems. Courses 15 and 16 are prerequisites. Course 51 is concurrent. Classroom, *three hours a week. Three 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 converters. Courses 15, 16, 17, and 18 are prerequisites. Course 51 is concurrent. Classroom, *one hour a week;* laboratory, *three hours a week. Two and one-half credit hours.* Mr. Roberts

78. Inspection Trip.—About a week's trip visiting some of the electrical and industrial plants of New England. Mr. Barrows

81. Communication Engineering.—Theory of apparatus; equivalent circuits; passive networks; elementary transmission and design problems; public-address systems; sound pictures; acoustics of auditoriums; carrier current systems. Lectures, recitations, and problems. Courses 22 and 24 are prerequisite. Classroom, *two hours a week;* computation, *three hours a week. Three credit hours.* Mr. Creamer

83. Communication Laboratory.—Advanced measurements; the condenser microphone; repeaters; carrier current systems; electromechanical and cathode ray oscillographs; filters, transformers; public-address systems; neon tubes; photoelectric cells. Courses 22 and 24 are prerequisite. Course 81 is required concurrently. 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. Classroom, *one hour a week;* computation, *three hours a week. Two credit hours.* Mr. Creamer

85, 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. Fall semester: classroom, *two hours a week. Two credit hours.* Spring semester: classroom, *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 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

91, 92. Theory of Electricity.—A study of the more advanced mathematical and physical theories of electricity with reference to their engineering applications. Wave propagation, radiation, gaseous conduction, and the analysis of transient phenomena by the methods of Heaviside's operational calculus. Problems, conferences, and seminar. Either or both semesters. *Two credit hours.* Mr. Cloke, Mr. Hill

156. Advanced Electrical Power Plants.—Study of the latest designs and methods of central station practice. Location, parallel operation, super-power practice, and economics. Lectures, studies, and problems. Courses 51, 56, and 76 are prerequisite. Classroom, *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. Classroom, *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 intransient states, during distturbances, and under abnormal conditions of operation. Lectures, problems, seminar papers, and reviews. Course 60 is prerequisite. Course 175 is concurrent. Classroom, *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 51, 60, and 76 prerequisite. Classroom, *one hour a week;* laboratory, *three hours a week. Two and one-half 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. Classroom, *two hours a week. Two credit hours.* Mr. Creamer

188. Circuits 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; Assistant Professor Dunham; Mr. Sawyer

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. Dunham, Mr. Sawyer

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 hours.* MR. KENT, MR. DUNHAM, MR. SAWYER

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. DUNHAM, MR. SAWYER

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 hours.* MR. KENT, MR. DUNHAM, MR. SAWYER

5. GRAPHICAL METHODS IN BUSINESS.—An introduction to the methods of constructing and interpreting graphic charts. Instruction and practice are given in elementary drafting principles and in lettering. Pictorial, bar, rectilinear, trilinear, ratio, logarithmetic, polar, isometric, probability, alignment and nomographic charts are studied as well as the more specialized business forms. This course is designed for students of economics and the methods used are applicable to industrial management, executive control, and to statistical preservation and prediction. Open to Economics majors only. Drawing room, *six hours a week; two hours credit.* MR. DUNHAM

6. GRAPHICAL ANALYSIS IN BUSINESS.—The practical application of the methods studied in Course 5 to the analysis of statistical and economic problems as well as to industrial and office management. Course 5, prerequisite. Drawing room, *four hours a week. Two credit hours.* MR. DUNHAM

9. 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, *six hours a week. Two credit hours.* MR. KENT

LECTURE COURSES

Gc 5. ORIENTATION.—A course of lectures by members of the staff of the College of Technology and other faculty members. Given Wednesday afternoons at 4.15 throughout the first semester. *One-half credit hour.*
MR. EVANS, MR. CLOKE

Gc 6. ORIENTATION.—A general lecture course given Wednesday afternoons at 4.15 throughout the second semester, consisting of addresses by engineers, business and professional men. *One-half credit hour.*
MR. EVANS, MR. CLOKE

MECHANICAL ENGINEERING

PROFESSOR SWEETSER; ASSOCIATE PROFESSOR WATSON; ASSISTANT PROFESSOR PRAGEMAN; MR. DAVEE; MR. PERKINS; MR. SPARROW; MR. PARR

1. FOUNDRY AND FORGE WORK.—Foundry instruction is given in bench and floor molding, mixing of materials, core making, operation of cupolas, etc. Forge instruction is given in drawing, upsetting, forming, welding, and tool dressing. Shop work, *six hours a week. Two credit hours.*
MR. DAVEE

2. PATTERN WORK.—Bench work and wood turning to familiarize the student with the tools used in modern woodworking practice, and to give him experience in working from dimensioned drawings. Pattern work, consisting of making complete patterns and core boxes from drawings. Shop work, *six hours a week. Two credit hours.* 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

21. ELEMENTS OF MECHANICAL ENGINEERING.—A course designed to familiarize the student with the mechanical apparatus of manufacturing and power plants, and elementary mechanical engineering calculations. Classroom, *two hours a week. Two credit hours.* MR. SPARROW, MR. PARR

27. KINEMATICS.—A shorter course than 55, arranged for electrical engineers. Recitation, *three hours a week. Three credit hours.*
MR. PRAGEMAN, MR. PARR

28. KINEMATICS.—A shorter course than 27, given to chemical engineers. Recitation, *two hours a week. Two credit hours.* MR. SPARROW

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. SPARROW

52. Materials of Engineering.—Properties of the metals; production from ores; heat treatment; methods of testing. Classroom, *two hours a week. Two credit hours.* Mr. Sweetser, Mr. Parr

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. Classroom, *three hours a week;* drawing room, *three hours a week. Four credit hours.* Mr. Prageman, Mr. Parr

66. Machine Design.—A study of the design of machines; proportioning of parts for strength, rigidity, etc. Mechanics 51 is prerequisite. Classroom, *two hours a week.* Drawing room, *three hours a week. Three credit hours.* Mr. Prageman, Mr. Parr

69, 70. Mechanical Laboratory.—Tests of materials, heating value of liquid and gaseous fuels, steam calorimetry, thermal efficiency, economy, and heat balance tests of steam engines, steam turbines, and gas engines. Course 38 is prerequisite. Laboratory, *three hours a week. One and one-half credit hours.* Mr. Watson, Mr. Sparrow

71, 72. Mechanical Laboratory.—Tests of condensers, boilers, air compressors, pumps, fans, hydraulic testing. Laboratory, *three hours a week. One and one-half credit hours.* Mr. Watson, Mr. Sparrow

73. Mechanical Laboratory.—A course arranged for students in Civil Engineering. Testing of strength of materials; measurement of flow of water over weirs, through orifices and nozzles; calibration of venturi meters. Laboratory, *three hours a week. One and one-half credit hours.* Mr. Sparrow

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. Sparrow

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. Sparrow

78. Mechanical Laboratory.—A course arranged for students taking Hydraulic option in Civil Engineering. Testing of impulse and reaction water wheels, flow measurement and friction in pipes and channels, etc. Course 73 is prerequisite. Laboratory, *three hours a week. One and one-half credit hours.* Mr. Sparrow

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 prerequisite. Recitation, *three hours a week. Three credit hours.*

Mr. Watson

81. Heat Engineering.—A continuation of Courses 79 and 80 dealing with steam turbines; consideration affecting the design and efficiency of operation of the various types. Recitation, *two hours a week;* drawing room, *three hours a week. Three credit hours.* Mr. Sweetser

82. Heat Power.—Fuels and combustion, steam and gas power plant equipment, arrangement, operation, and efficiencies of various types of apparatus. Course 79 is prerequisite. *Three hours a week. Three credit hours.*

Mr. Watson, Mr. Sparrow

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. Prageman

84. Heat Engineering.—A course similar to Course 79, given to electrical engineers. Recitation, *three hours a week. Three credit hours.*

Mr. Sparrow

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. Sparrow

86. Power Plants.—Design, costs, operating expenses, and economics of steam and gas power plants. Courses 81 and 82 are prerequisite. Classroom, *three hours a week. Three credit hours.* Mr. Sweetser

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, Mr. Parr

88. Dynamics of Machines.—A study of the forces due to reciprocating and rotating masses with special application to balancing high-speed

machinery, designing governors and flywheels. Courses 55 and 66 are pre requisite. Recitation, *two hours a week.* Drawing room, *three hours a week Three credit hours.* MR. PRAGEMAN, MR. PARI

91. HEATING AND VENTILATION.—Heat resistance of building materi als, calculation of heat losses through various types of walls, windows, etc. heating systems, ventilating systems, humidification. Course 80 is prerequi site. Recitation, *two hours a week. Two credit hours.* MR. PRAGEMAN

93. GAS ENGINES.—Types, operation, fuels and combustion, carbure tion, ignition, valves, cooling, governing, determination of cylinder sizes foı given fuel and horsepower. Courses 79 and 66 are prerequisite. Classroom *three hours a week. Three credit hours.* MR. SWEETSER, MR. WATSON

94. HYDRAULIC MACHINERY.—Hydraulic turbines; water wheels, vari ous features of hydraulic power plant development. Mechanics 52, Civil En gineering 35, and Mechanical Engineering 55 are prerequisite. Recitation *three hours a week. Three credit hours.* MR. PRAGEMAN

96. SEMINAR.—Preparation, presentation, and discussion of papers or leading engineering topics. Recitation, *one hour a week. One credit hour.* MR. SWEETSER

98. FACTORY ORGANIZATION AND MANAGEMENT.—Lectures and as signed reading bearing upon various types of organization for industrial en terprises; planning and equipping of factory plants; systems of management; factory design and construction. Recitation, *two hours a week. Two credi hours.* MR. PRAGEMAN

100. THESIS.—The results of some original investigation or design pre sented in proper form. The subject should be selected early in the fall semes ter of the senior year. See regulations regarding degrees. Laboratory, *six hours a week. Three credit hours.* MR. SWEETSER AND STAFF

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 week;* laboratory, *four hours a week. 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. A complete schedule of the trip is prearranged and a member of the department staff is in charge of the party.

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.*

53, 54. MECHANICS.—The fundamental principles of statics, kinematics, and kinetics, with applications to practical problems; the study of simple stresses and strains with such applications as the time permits. For students in the Department of Elecrical Engineering only. Fall semester, *two credit hours;* spring semester, *three 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. Fall semester, *three credit hours;* spring semester, *two credit hours.*

General Courses

Not sponsored by a single College or School.

MILITARY SCIENCE AND TACTICS

MAJOR OLIVER; MAJOR EBERLE; CAPTAIN STEWART; CAPTAIN WEAR; 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, white shirts, and collars), 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 prescribed for infantry officers of the United States Army, except that "R.O.T.C." 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." 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.

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—THREE HOURS A WEEK

Freshman year, Courses 1 and 2; sophomore year, Courses 3 and 4.

1. Military Training—
   (a) The National Defense Act and the R.O.T.C.:
   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.

(b) Military Courtesy and Discipline: To inculcate respect for, and 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.

(c) Military Hygiene and First Aid: Instruction in personal hygiene, first aid, and prevention of disease.

(d) Drill and Command: Theoretical and practical instruction to 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—

(a) Rifle Marksmanship: Practical instruction and training with a view to forming proper shooting habits and methods preliminary to and during small bore firing, nomenclature, care and cleaning of the rifle.

(b) Scouting and Patrolling: Theoretical and practical instruction 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—

(a) Scouting and Patrolling: Theoretical and practical instruction 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.

(b) Automatic Rifle: Practical instruction in mechanical functioning, positions, and combat use of the automatic rifle.

(c) Drill and Command: Review of first year course (Mt 1 and 2). 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—

(a) Musketry: Theoretical and practical instruction covering small 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

Junior year, Courses 5 and 6; senior year, Courses 7 and 8.

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.

(c) Drill and Command: A review of the previous drill and command 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

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.

(b) Military Courtesy and Discipline: To inculcate respect for, and 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.

(c) Military Hygiene and First Aid: Instruction in personal hygiene, first aid, and prevention of disease.

(d) Drill and Command: Theoretical and practical instruction to 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—

(a) Rifle Marksmanship: Practical instruction and training with a view to forming proper shooting habits and methods preliminary to and during small bore firing, nomenclature, care and cleaning of the rifle.

(b) Scouting and Patrolling: Theoretical and practical instruction 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—

(a) Scouting and Patrolling: Theoretical and practical instruction 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.

(b) Automatic Rifle: Practical instruction in mechanical functioning, positions, and combat use of the automatic rifle.

(c) Drill and Command: Review of first year course (Mt 1 and 2). 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—

(a) Musketry: Theoretical and practical instruction covering small 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

Junior year, Courses 5 and 6; senior year, Courses 7 and 8.

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.

(c) Drill and Command: A review of the previous drill and command 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 courts-martial 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).

PHYSICAL EDUCATION AND ATHLETICS

PROFESSOR WALLACE; PROFESSOR CURTIS; PROFESSOR BRICE; PROFESSOR JENKINS; MR. KENYON

Men's Division

Athletics for men are under the supervision of the Athletic Board, composed of members of the faculty, alumni, trustees, and students. The management of athletics is in the hands of a faculty manager, who carries out the policies of the Athletic Board.

The schedules of all sports are arranged with the interest of both the University and the individual members of teams in mind. Letters and numerals are awarded by the Athletic Board to those men who earn them in competition in various sports. Admission to all contests held on Alumni Field is included in the blanket tax which is paid by each student at the time of registration.

Student managers are elected in each sport and their work is carried on under the direction of the Faculty Manager. They are awarded a letter in their sport at the satisfactory completion of their duties.

Teams are maintained in freshman and varsity football, cross-country, relay, track, baseball, winter sports, and freshman basketball.

The field house, which is one of the largest and best in the world, offers a fine opportunity for the athletic teams to practice and participate during inclement weather.

The organization of the Physical Education 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 out-of-door recreational exercises during the fall and spring, while the gym will be used for more formal work during the winter months, for those who do not participate in winter sports.

1, 2. Physical Education.—Required of all freshmen. Outdoor supervised mass games; competitive athletics including football, boxing, wrestling, fencing, calisthenics, tactics, corrective exercises, elementary apparatus work. Indoor games. *Two hours a week.*

3, 4. Physical Education.—Required of all sophomores. Outdoor mass games and athletics including football, tag football, tennis, volley ball, playground ball, speedball, and winter sports. Indoor games include basketball, wrestling, boxing, fencing, formal gymnastics, corrective work, and tactics, and apparatus work will also be taught in the gym. *Two hours a week.*

Teachers' Courses in Physical Education for Men

The following courses are for students who wish to teach physical education and who have completed Courses 1, 2, 3, and 4. The complete program is classed as a minor subject.

5. Physical Education.—The technique of teaching gymnastics. An outline of General Physical Education taking up specifically the meaning and results to be expected in modern Physical Education, first aid and massage and the principles of training athletes and caring for athletic injuries. Practice teaching of games and mass athletics, supplemented by outside reading on physical education and hygiene. Methods of teaching football and basketball.

6. Physical Education.—The study of Games and Play Activity. Covering plays and games from a physical education standpoint. Apparatus work, formal and school room gymnastics, methods of promoting grammar- and high-school programs in physical education and health. Methods of teaching track and baseball.

7. Physical Education.—Health problems of school and community with emphasis on rural schools. A continuation of the technique of teaching mass games, corrective work, formal and informal gymnastics. Training and conditioning of athletes. Practice teaching. Methods of teaching football and basketball. *Five hours a week, two hours credit.*

8. Physical Education.—The administration of Physical Education programs in elementary and secondary schools. Graded apparatus work, training of leaders, corrective work individually and in classes. Practice teaching. Methods of teaching track and baseball. *Five hours a week, two hours credit.*

The following courses are also required: Psychology 1, 2. General Psychology; Education 59, 60. Principles of Secondary Schools; Zoology 12. Human Physiology and Applied Anatomy.

Women's Division

Assistant Professor 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 the University physicians and a physical examination by the director of physical education are given each entering student during the first week of school, 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.

Instructors in all activities are 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 student, the Maine Athletic Association Women's Branch conducts a series of interclass activities in hockey, basketball, archery, tennis, baseball, track, and other sports.

Regulation gymnasium uniforms, described elsewhere in the catalog, are required for this work.

1. 2. Elementary Physical Education.—Required of all freshmen. Consists of postural and developmental gymnastics and physical efficiency tests of endurance, strength, and agility. Hockey, tennis, basketball, baseball, archery, and track may be substituted for this in season. *Two hours a week.*

1a, 2a. Elementary Dancing.—This may be substituted for Courses 1, 2. 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. 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. Prerequisites 1a, 2a. *Two hours a week.*

5, 6. Advanced Apparatus.—This may be substituted for Courses 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 for Women

The following courses are for students who wish to minor in Physical Education and thus obtain a Secondary State Teachers' Certificate, from the State Department of Education.

Prerequisites: Physical Education 1, 2, 3, 4 without credit; General Zoology, *four hours credit;* Elementary Physiology and Hygiene, *two hours credit;* Human Physiology, *four hours credit.*

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 and first aid with the exception of the determination of organic capacity for activities. Open to juniors who have fulfilled the requirements of Zoology 1, 5, 12.

9, 10. Methods for Teaching Physical Education.—This course deals with the methods of teaching physical education activities through the grades and high school. It also gives opportunity for practice teaching. Open to seniors who have passed Physical Education 7, 8. *Three hours a week and field work.*

It is recommended that students enrolling in the above courses should have at least six hours of each of the following departments: Education, Psychology, Sociology, and Public Speaking.

TUTORIAL HONORS

49, 50. Tutorial Honors.—Open to superior students in any department who wish to broaden and organize their cultural interests. Students should apply to Dean Chase. *Two hours credit.*

Graduate Study

FACULTY OF GRADUATE STUDY

George Davis Chase, Ph.D., LL.D., *Dean of Graduate Study and Professor of Latin*
James Norris Hart, Sc.D., Ph.D., *Professor of Mathematics and Dean of the University*
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, S.B., *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 and Chemical Engineering*
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. ès L., *Professor of French*
Charles Henry Merchant, Ph.D., *Professor of Agricultural Economics and Farm Management*
James Howard Waring, Ph.D., *Professor of Horticulture*
Paul Cloke, M.S., E.E., *Dean of the College of Technology*
Olin Silas Lutes, Ph.D., *Dean of the School of Education and 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 and Entomology*
Donnell Brooks Young, Ph.D., *Professor of Zoology*
William Edward Barrows, E.E., *Professor of Electrical Engineering*
Arthur St. John Hill, E.E., M.S.E., *Professor of Electrical Engineering*
Fred Griffee, Ph.D., *Biologist and Director of the Experiment Station*

*On leave of absence, 1932-33.

Ronald Bartlett Levinson, Ph.D., *Professor of Philosophy*
Elmer Reeve Hitchner, Ph.D., *Professor of Bacteriology*
Marion Deyoe Sweetman, Ph.D., *Professor of Home Economics*
Maurice Daniel Jones, M.S., *Professor of Agricultural Economics and Farm Management*
James Muilenburg, Ph.D., *Dean of the College of Arts and Sciences*
Paul DeCosta Bray, Ch.E., *Associate Professor of Chemistry*
Kenneth Stillman Rice, Ph.D., *Associate Professor of Zoology*
Ava Harriet Chadbourne, Ph.D., *Associate Professor of Education*
Charles Burton Crofutt, Ph.D., *Associate Professor of Physics*
William Franklin Dove, Ph.D., *Associate Biologist, Experiment Station*
George William Small, Ph.D., *Associate Professor of English*
Walter French, Ph.D., *Associate Professor of German*
George Baer Fundenburg, Ph.D., *Associate Professor of French*
Albert Morton Turner, Ph.D., *Associate Professor of English*
Edward French Dow, Ph.D., *Associate Professor of History*
John Raymond Crawford, Ph.D., *Assistant Professor of Education*
Alfred Carleton Andrews, Ph.D., *Assistant Professor of Latin*

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, two from each of the three colleges—Agriculture, Arts and Sciences, and Technology, and two from the School of Education.

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 begining of each semester all graduate students, whether candidates for a degree or not, are required to register with the head of the de-

partment 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.

FELLOWSHIPS AND SCHOLARSHIPS

The Trustees have established three graduate fellowships of the value of $500.00 each to be assigned on a competitive basis by a committee of the Faculty of Graduate Study.

The Trustees have also established four competitive graduate scholarships, one for each college and one for the School of Education, 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.

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

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 should be addressed to Professor E. R. Hitchner, Secretary. It is hoped that this fund may later be increased by grants from other sources.

DEGREES

The degrees of Master of Arts, Master of Science, Master of Arts in Education, and Master of Science in Education 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. If he is a graduate of the University of Maine he must present his record from the Registrar's office.

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 throughout 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 registration 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. It must 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, after his thesis has been approved, the candidate will be required to pass an oral examination covering his work, including the thesis. The time for such examinations will be arrangad by the Dean to accord, so far as possible, with the convenience of the candidate and the major instructor; they will ordinarily be held in the month of May, but, at the discretion of the Executive Committee, may be held at other times. About May 15, the Dean will notify the heads of all departments of the University of the dates set for the public oral examinations of the candidates of the year. Examinations are open to all voting members of the faculty. While, as a matter of course, the examination will 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 curriculum of Chemistry or Chemical Engineering, Civil Engineering, Electrical Engineering, and Mechanical Engineering respectively, upon the completion of the requirements stated below. Graduates receiving the degree of Bachelor of Science in General Engineering, upon the completion of these requirements, will be granted the professional degree of Chemical Engineer, Civil Engineer, Electrical Engi-

neer, or Mechanical Engineer, depending upon the field of work of the candidate and the judgment of the dean and the heads of departments in the College of Technology.

The presentation of a satisfactory thesis, which shall constitute an original contribution to the advance of engineering, is required of all candidates. The candidate must hold a position of responsibility and must have accomplished professional work of eminence for a period of at least five years subsequent to graduation. A full and complete statement covering the professional experience of the candidate must be presented at the time of registration. Candidates are expected to be present in person 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 1924

No. 2 Economic Feminism in American Literature prior to 1848
By A. Genevieve Violette 1925

No. 3 Roumanian Folk Tales Retold from the Original
By Jacob Bernard Segall 1925

No. 4 Life of Thomas Green Fessenden
By Porter Gale Perrin 1925

No. 5 Mental Attainment of College Students in Relation to Previous Training, Environment, and Heredity
By John Whittemore Gowen and Marjorie Eunice Gooch 1925

No. 6 The Formal Eclogue in Eighteenth Century England
By Marion Kathryn Bragg 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 1927

No. 9 Methods Used in Growing Peas for Canning in Maine and the Problems Connected with their Economical Production
By Maurice Daniel Jones 1927

No. 10 Vacuum Tube Amplifiers for Audio-Frequency Currents
By Walter Joseph Creamer 1927
No. 11 A Lesser Hartford Wit, Dr. Elihu Hubbard Smith (1771-1798)
By Martha Edgerton Bailey 1928
No. 12 An Economic Study of Production, Destination, and Farm Price of Maine Potatoes
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No. 17 Constantia—A Study of the Life and Works of Judith Sargent Murray, 1751-1820
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By H. B. Kirshen 1932
No. 25 A History of Newspapers in the District of Maine, 1785-1820
By Frederick Gardiner Fassett, Jr. 1932

No. 26 The Progressive Movement of 1912 and Third Party Movement of 1924 in Maine
By Elizabeth Ring 1933

No. 12 is no longer available for distribution.

The First Series of the *University of Maine Studies,* issued at irregular intervals from 1900 to 1907, comprises the following numbers:
1. Effect of Magnetization upon the Elasticity of Rods, by James S. Stevens; 2. The Life History of Nucula Delphenodonta Mighels, by Gilman A. Drew; 3. The Preliminary List of Maine Fungi, by Percy LeRoy Ricker; 4. Catalog and Bibliography of the Odonata (Dragon Flies) of Maine, by F. L. Harvey; 5. Study of the Physiographic Ecology of Mt. Katahdin, Maine, by L. H. Harvey; 6. The Habits, Anatomy, and Embryology of the Giant Scallop (Pecten tenuicostatus Mighels), by Gilman A. Drew; 7. Meterological Conditions at Orono, Maine, by James S. Stevens. Numbers 4 and 5 are out of print.

Copies of the *Studies* may be obtained from the University Library at fifty cents each.

Maine Agricultural Experiment Station

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Mary Norton Cameron, Secretary
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Florence Lydia Markin, M.S., Assistant
Gladys Elizabeth Babbin, Assistant in Seed Analysis 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 Director of the Extension Service, 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, the Maine Seed Improvement Association, and the Maine Poultry 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. Through 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 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 7000 volumes comprising agricultural and biological journals and publications of the various experiment 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 2500 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. A cold storage plant was provided this year for apples. The capacity of this plant is about 7500 boxes.

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 one of the main roads 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 thoroughly 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.

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 foods 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.

Summer Session

The University maintains a Summer Session which continues for six weeks, beginning usually shortly after the Fourth of July. The faculty is made up mainly of heads of departments and other members of the University staff of professorial rank and visiting professors from other institutions. About 120 courses in seventeen departments are now offered. Instruction is given in most of the subjects taught in the College of Arts and Sciences as well as in Chemistry, Physical Education, and Home Economics. A large amount of work is available in Education. A station for the study of marine biology is maintained on the coast at Lamoine.

As an integral part of the University organization the Summer Session insists upon similar standards of academic achievement. In general the same requirements for admission and the same regulations apply as during the regular academic year. The Summer Session may be used to meet the residence requirement for the different degrees authorized by the University and credit obtained during the summer is fully recognized.

The Session is primarily for the benefit of teachers and superintendents of Maine and other states who desire to improve themselves by taking professional courses in the field of Education or by pursuing subjects which may be helpful to them in connection with their work. Hence, special attention is given to teachers' courses in the various subjects offered. The Session also affords opportunities for students in the University of Maine or other similar institutions to secure credits toward a degree and complete their work in a shorter time than would otherwise be possible. Normal school graduates who are admitted to advanced standing as candidates for a bachelor's degree in the School of Education may do a considerable part of their work in the Summer Session.

Properly qualified graduates of colleges or universities may enroll in most departments as candidates for a master's degree and complete their work by attendance at the Summer Session. The minimum residence requirement in such cases is four sessions. An increasing number of summer students are candidates for an advanced degree.

Classes meet five times a week. Except in special cases the maximum registration is for three courses, the successful completion of which entitles the student to six semester hours of credit.

A registration fee of $6.00 is paid by all students except those registered at the Lamoine Station. Tuition for a single two-credit course is $15.00; for each additional two-credit course, $10.00. The tuition charge at the Lamoine Station is $60.00.

The opening and closing dates for 1933 are Wednesday, July 5 and Saturday, August 12. The Summer Session Bulletin giving a list of the courses offered and detailed information is published annually about March 1. For copies and other information address Dr. Roy M. Peterson, Director, Orono, Maine.

Alumni Associations

GENERAL ASSOCIATION

President, Arthur L. Deering, 1912, Orono
Vice-President, George S. Williams, 1905, 221 State St., Augusta
Clerk, Maurice D. Jones, 1912, Orono
Executive Secretary, Charles E. Crossland, 1917, Fernald Hall, Orono
Treasurer, Paul D. Bray, 1914, Orono

ALUMNI COUNCIL

Members at Large

	Term expires
C. Parker Crowell, 1898, 36 Howard St., Bangor	1933
Louis Oakes, 1898, Greenville Jct.	1933
J. Larcom Ober, 1913, Bailey Ave., Beverly, Mass.	1933
Mrs. W. F. Schoppe, 1908, R.F.D. 4, Auburn	1933
Harry E. Sutton, 1909, 161 Devonshire St., Boston, Mass.	1933
R. H. Fogler, 1915, Montgomery-Ward Co., Chicago, Ill.	1934
J. E. Totman, 1916, Stock Exchange Bldg., Baltimore, Md.	1934
G. T. Carlisle, 1909, 299 Union St., Bangor	1934
Mrs. Hamlyn Robbins, 1919, R.D. 1, Scarboro	1935
Mrs. Merrill Bowles, 1921, 176 Nowell Rd., Bangor	1935
R. E. McKown, 1917, Bar Harbor	1935
Harold M. Pierce, 1919, Box 773, Bangor	1935
Harold Cooper, 1915, 77 Davis Ave., Auburn	1935

College of Agriculture

W. Ray Thompson, 1914, Caribou	1935

College of Arts and Sciences

A. Lincoln King, 1914, 15 Clifford St., Portland	1933

College of Technology

Arthur E. Silver, 1902, 360 No. Fullerton Ave., Upper Montclair, N. J.	1935

College of Law

Robert W. DeWolfe, 1907, 102 Exchange St., Portland..... 1934

A. L. Deering, 1912, Orono
President of the General Alumni Association *ex officio*
G. S. Williams, 1905, 221 State St., Augusta
Vice-President of the General Alumni Association *ex officio*

Executive Committee

G. S. Williams, Chairman
A. L. Deering, *ex officio*
R. H. Fogler
Harry Sutton
Harold Cooper
C. P. Crowell
R. W. DeWolfe

ALUMNI REPRESENTATIVE ON BOARD OF TRUSTEES

Hosea B. Buck, 1893, 1 Columbia Bldg., Bangor..... 1933

ALUMNI MEMBERS OF ATHLETIC BOARD

	Term expires
Clifford Patch, 1911, 83 Grove St., Bangor.....	1933
Clifton A. Hall, 1910, Box 778, Bangor.....	1934
J. Harvey McClure, 1905, 45 Sixth St., Bangor.....	1935

SPECIAL ASSOCIATIONS

PULP AND PAPER

Secretary, C. H. Champion, 1919, 59 W. 46th St., Hotel Wentworth, New York, N. Y.

MAINE TEACHERS

President, Earl H. Danforth, 1918, Gardiner; Secretary, C. E. Crossland, 1917, Orono; Treasurer, Sadie Thompson, 1929, 24 Willow St., Old Town

LOCAL ASSOCIATIONS

Androscoggin Valley—President, Horace J. Cook, 1910, 134 Lake St., Auburn; Secretary, John L. Collins, 1910, 85 Goff St., Auburn.

Aroostook County—President, G. M. Carter, 1918, Caribou; Secretary, Kingdon Harvey, 1930, Fort Fairfield.

Boston—President, J. A. McCusker, 1917, East Braintree, Mass.; Secretary, H. H. Ayer, 1924, 24 Federal St., Boston, Mass.

Chicago—President, C. C. Whittier, 1899, 6025 University Ave., Chicago, Ill.; Secretary, G. E. LaMarche, 1911, 6830 Osceola Ave., Chicago, Ill.

Central Maine—President, Bryant L. Hopkins, 1917, 10 Heath St., Waterville; Secretary, M. F. McCarthy, 1911, 61 Benton Ave., Waterville.

Central New York—President, Clarence Libby, 1916, N. Y. State College of Forestry, Syracuse, N. Y.

Eastern New York—President, Herbert P. Mayo, 1899, 106 Fifth St., Scotia, N. Y.; Secretary, Philip Ham, 1922, 34 Western Parkway, Schenectady, N. Y.

Hancock County—President, Guy E. Torrey, 1909, Bar Harbor; Secretary, George Mahoney, 1929, Ellsworth.

Hartford—President, P. H. Stevens, 1923, 629 New Britain Ave., Hartford, Conn.; Secretary, Carroll Osgood, 1928, 16 Townley St., Hartford, Conn.

Kennebec County—President, Spofford Giddings, 1926, 9 Green St., Augusta; Secretary—Wayne B. Hussey, 1922, c/o Swift & Co., Augusta.

Knox County—President, Alan Bird, 1900, 246 Broadway, Rockland; Secretary, Katherine Veazie, 1930, 12 Shaw Ave., Rockland.

Lehigh Valley—President, Roy H. Porter, 1906, 462 Columbia Ave., Palmerton, Pa.; Secretary, L. E. Curtis, Jr., 1923, 1209 Union Blvd., Allentown, Pa.

Missouri—President, E. O. Sweetser, 1905, Washington University, St. Louis, Mo.; Secretary, Mrs. Carl C. Wheaton, 1913, 7255 Gayola Ave., St. Louis, Mo.

New York—President, A. E. Silver, 1902, 360 No. Fullerton Ave., Upper Montclair, N. J.; Secretary, L. K. Betts, 1928, 42-30 Union St., Flushing, N. Y.

Northern Ohio—President, Herbert A. Knowlton, 1907, 1101 Union Trust Bldg., Cleveland, Ohio; Secretary, Chester G. Cummings, 1910, 1287 Bonnieview Ave., Lakewood, Ohio.

Northwestern—President, Guy French, 1909, 4214 Pillsbury Ave., Minneapolis, Minn.; Secretary, J. H. Davidson, 1920, 1100 Builders Exchange, Minneapolis, Minn.

Oxford County—President, Alden Chase, 1913, Bryants Pond; Secretary, Peter McDonald, 1913, 351 Franklin St., Rumford.

Penobscot Valley—President, Maurice D. Jones, 1912, Orono; Secretary, Harry S. Wiswell, 1924, 177 Elm St., Bangor.

Penobscot Valley Law—President, B. W. Blanchard, 1904, 50 Columbia St., Bangor; Secretary, L. V. Jones, 1909, 50 Columbia St., Bangor.

Philadelphia—President, Mowry Ross, 1901, 2967 Tuckahoe Rd., Camden, N. J.; Secretary, G. O. Ladner, 1926, 1223 Fillmore St., Frankford, Philadelphia, Pa.

Pittsburgh—President, Donald Babb, 1926, 1355 Cordova Rd., Pittsburgh, Pa.; Secretary, S. J. Pearce, 1927, 4800 Forbes St., Pittsburgh, Pa.

Portland Club University of Maine Women—President, Miss Louise Kincade, 1923, 66 Irving St., Portland; Secretary, Mrs. Eirena Luce, 1918, 19 Victory Ave., So. Portland.

Providence—President, N. H. Mayo, 1909, 485 Plainfield St., Providence, R. I.; Secretary, J. W. Chandler, 1925, 16 What Cheer Ave., Providence, R. I.

Southern California—President, A. C. Hardison, 1890, West Main St., Santa Paula, Calif; Secretary, G. E. Springer, 1910, 1128 West 50th St., Los Angeles, Calif.

Southern New Hampshire—President, Clement Lyon, 1915, New Boston, N. H.; Secretary, Harold Howe, 1924, 121 Warren St., Concord, N. H.

Waldo County—President, Kenneth Lovejoy, 1928, 1 Grove St., Belfast; Secretary, Charles S. Taylor, 1916, Main St., Belfast.

Washingon, D. C.—President, M. B. Shaw, 1915, 5130 Connecticut Ave., N. W., Washington, D. C.; Secretary, A. S. Creamer, 1926, 3102 Rodman St., N.W., Washington, D. C.

Western Maine—President, Eric O. Berg, 1924, Cumberland Ave., So. Portland; Secretary, John T. Marshall, 1926, 42 Atlantic St., Portland.

Western Massachusetts—President, Earl D. Hooker, 1917, 68 Ellington St., Longmeadow, Mass.; Secretary, C. Roger Lappin, 1923, 1597 Main St., Springfield, Mass.

Western New York—Secretary, Clayton T. Knox, 1929, 45 W. Mohawk St., Buffalo, N. Y.

White Mountain—President, Chester H. Goldsmith, 1915, 119 High St., Berlin, N. H.; Secretary, W. W. Webber, 1916, 126 Shepard St., Berlin, N. H.

Worcester County—President, Leon Seekins, 1913, c/o Worcester Electric Light Co., Worcester, Mass.

York County—President, Frank D. Fenderson, 1899, Alfred; Secretary, R. H. Lovejoy, 1918, 9 Maple St., Sanford.

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1875 E. F. Hitchings, 2 Summer St., Orono
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1877 E. F. Danforth, Skowhegan
1878 C. C. Chamberlain, Enderlin, N. D.
1879 C. A. Morse, Windermere Hotel, Chicago, Ill.
1880 A. H. Brown, Brunswick St., Old Town
1881 H. M. Plaisted, 4413 Page Blvd., St. Louis, Mo.
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1889 Dr. J. S. Ferguson, 1 Malba Drive, Malba, L. I., N. Y.
1890 Edward H. Kelley, Alumni Hall, Orono
1891 W. M. Bailey, 88 Broad St., Boston, Mass.
1892 E. W. Danforth, 468 Medford St., Somerville, Mass.
1893 Harry M. Smith, 41 Hammond St., Bangor
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1901 Fred M. Davis, 7 So. Dearborn St., Chicago, Ill.
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1909 Deane S. Thomas, 443 Congress St., Portland
1910 H. W. Wright, 188 Elm St., Bangor

1911 B. O. Warren, 381 Fourth Ave., New York, N. Y.
1912 A. L. Deering, Orono
1913 Ernest T. Savage, 15 State St., Bangor
1914 Marion Buzzell, 222 No. Brunswick St., Old Town
1915 R. F. Thurrell, East Wolfboro, N. H.
1916 W. W. Webber, 126 Shepard St., Berlin, N. H.
1917 F. O. Stephens, 21 Academy St., Auburn
1918 Thelma Kellogg, 323 West Walnut St., Carbondale, Illinois
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1923 Mrs. Iva M. Burgess, 22 Main St., Orono
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1927 Mrs. Archie O. Dostie, Skowhegan
1928 Mrs. Spofford Giddings, 16 Middle St., Hallowell
1929 George F. Mahoney, Ellsworth
1930 Pauline Hall, 59 Fletcher St., Kennebunk
1931 Elizabeth Livingstone, 8 Sanborn St., Winchester, Mass.
1932 Mrs. Maynard Hincks, Main St., Orono

Honors and Prizes Awarded

Members of Phi Kappa Phi

1932

Thomas Henry Baldwin, Jr., New Britain, Conn.; Linwood Jules Bowen, Bangor; Beulah Marie Bradbury, Bangor; Ralph Conway Brooks, Ogunquit; Clarine Mildred Coffin, Bangor; Eleanor George Dow, Bangor; Marion Ruth Ewan, Eastport; Margaret Esther Fowles, Belfast; Muriel Freeman, North Windham; Clayton Haines Hardison, Caribou; Merle Tyson Hilborn, Philadelphia, Pa.; Albert Henry Howes, Bingham; Raymond Additon Hunter, Unity; Eleanor Kane, Eastport; Winthrop Charles Libby, Caribou; Malcolm Graham Long, East Bluehill; Wheeler Godfrey Merriam, Framingham, Mass.; Esther Moore, McKinley; John Harold Mowat, Houlton; Harland Oscar Poland, Stillwater; Donald Eugene Pressey, Bangor; Isabelle Avesia Robinson, Old Town; Donis Averill Scott, Bangor; Albert James Smith, Hempstead, N. Y.; Rebecca Tarbox Spencer, Biddeford; Charles Lowell Stewart, Rockland; Oscar Thomas Thompson, Lincoln; Katherine Woodworth Trickey, Bangor; Lydia Erickson Wear, Orono.

1933

Arthur Albert Francis Brown, Bangor; Charles Durward Brown, Raymond; Hollis Littlefield Leland, Bangor.

Members of Tau Beta Pi

1932

Ronald Ermont Austin, Springvale; Ralph Conway Brooks, Ogunquit; Lovell Converse Chase, Houlton; Henry Hayes Favor, Norway; Clayton Haines Hardison, Caribou; Gordon Sampson Hayes, Oxford; Albert Henry Howes, Bingham; Raymond Additon Hunter, Unity; Benedict Augustine Kelley, Brooks; Marcel François L'Heureux, Lewiston; Malcolm Graham Long, East Bluehill; Roscoe Chaney Masterman, Jay; Wheeler Godfrey Merriam, Framingham, Mass.; Hugh Hayden Morton, South Paris; Francis Davidson Murphy, Oakfield; Harland Oscar Poland, Stillwater; Donald Eugene Pressey, Bangor; Winston Churchill Robbins, Brewer; Joseph Percy

Seltzer, Fairfield; Albert James Smith, Hempstead, N. Y.; Loring Raymond Swain, Weld; Oscar Thomas Thompson, Lincoln; Ronald Everett Young, Northeast Harbor.

1933

William Bruce Ashworth, Orono; Charles Durward Brown, Raymond; John Millbury Chandler, South Paris; Donald Irving Coggins, Malden, Mass.; Arthur Bradford Cronkright, Arlington, N. J.; Garald Chase Duplisea, Houlton; Donald Edward Frazier, Norwood, Mass.; John Peter Gonzals, Taunton, Mass.; Edward Grant Haggett, Jr., Portland; Hollis Littlefield Leland, Bangor; Henry Wadsworth Raye, Eastport; Girdler Jackson Swett, Jr., Andover; John Forbes Wilson, Lowell, Mass.

Members of Alpha Zeta

1932

Linwood Jules Bowen, Bangor; Harold Earle Bryant, Fort Fairfield; Newton Collins Churchill, Houlton; Norman Lufkin French, Rumford Center; Maynard Alton Hincks, Portland; Winthrop Charles Libby, Caribou; Smith Charles McIntire, Perham; Stacy Ross Miller, Carmel.

1933

Warren Maynard Hendrickson, Waterville; Kenneth Boyden Johnson, Perry; Kenneth Everson Varney, Orono; Clifton Nathaniel Walker, Wiscasset; Edward Haven Wilson, Cape Elizabeth.

1934

Lewis Merrill Hardison, Caribou; Wesley Parkhurst Judkins, Waterville; Wayne Schermerhorn Rich, Charleston; Arthur Elwell Watson, Oakland.

Members of Phi Beta Kappa

1932

Thomas Henry Baldwin, Jr., New Britain, Conn.; Beulah Marie Bradbury, Bangor; Clarine Mildred Coffin, Bangor; Marion Ruth Ewan, Eastport; Margaret Esther Fowles, Belfast; Muriel Freeman, North Windham;

Esther Moore, McKinley; Charles Eugene O'Connor, Millinocket; Isabelle Avesia Robinson, Old Town; Rebecca Tarbox Spencer, Biddeford; Beulah Maude Starrett, Warren; Katherine Woodworth Trickey, Bangor.

1933

Clark Luce Abbott, North New Portland; Arthur Albert Francis Brown, Bangor.

General Honors

Hazel Fisher Adams, Boothbay Harbor; Thomas Henry Baldwin, Jr., New Britain, Conn.; Linwood Jules Bowen, Bangor; Beulah Marie Bradbury, Bangor; Ralph Conway Brooks, Ogunquit; Harold Earle Bryant, Fort Fairfield; Clarine Mildred Coffin, Bangor; Marian Louise Davis, Port Clyde; Wilfred Stanley Davis, Mechanic Falls; Eleanor George Dow, Bangor; Marion Ruth Ewan, Eastport; Henry Hayes Favor, Norway; Margaret Esther Fowles, Belfast; Muriel Freeman, North Windham; Norman Lufkin French, Rumford Center; Walter Louis Henry Hall, Orono; Clayton Haines Hardison, Caribou; William Fee Hathaway, Kalamazoo, Mich.; Merle Tyson Hilborn, Philadelphia, Pa.; Albert Henry Howes, Bingham; Raymond Additon Hunter, Unity; Marcel François L'Heureux, Lewiston; Winthrop Charles Libby, Caribou; Malcolm Graham Long, East Bluehill; Wheeler Godfrey Merriam, Framingham, Mass.; Esther Moore, McKinley; John Harold Mowat, Houlton; Ralph Gladding Munroe, Attleboro, Mass.; Francis Davidson Murphy, Oakfield; Harland Oscar Poland, Stillwater; Horace Chase Porter, Searsport; Donald Eugene Pressey, Bangor; Cyrus Lunt Ricker, Waterboro; Isabelle Avesia Robinson, Old Town; Donis Averill Scott, Bangor; Geraldine Elizabeth Shean, Bangor; Ivan Cecil Sherman, Union; Albert James Smith, Hempstead, N. Y.; Dorothy Marie Somers, Bangor; Rebecca Tarbox Spencer, Biddeford; Beulah Maude Starrett, Warren; Charles Lowell Stewart, Rockland; Oscar Thomas Thompson, Lincoln; Katherine Woodworth Trickey, Bangor; Lydia Erickson Wear, Orono.

Scholarships and Prizes

Kidder Scholarship, Hollis Littlefield Leland, Bangor.

New York Alumni Association Scholarship No. 1, to be divided between Eva Myrtle Bisbee, Portland, and Max Rapaport, Bangor.

New York Alumni Association Scholarship No. 2, Hollis Littlefield Leland, Bangor.

Pittsburgh Alumni Association Scholarship, John Bradley Cotter, Orono.
Prize of the Class of 1873, Claude Kneeland Baker, Millinocket.
Central District Alumni Association Scholarship, Margaret Elizabeth Avery, Bangor.
Elizabeth Abbott Balentine Scholarship, Fern Elizabeth Allen, Bangor.
Phi Mu Scholarship, Olive Louise Whiting, Hebron Station.
Joseph Rider Farrington Scholarship, Charles Everett Holyoke, Jr., Brewer.
Stanley Plummer Scholarship, Robert Lincoln Clifford, Dexter.
Walter Balentine Prize, Wayne Schermerhorn Rich, Charleston.
Franklin Danforth Prize, Charles Lowell Stewart, Rockland.
Washington Alumni Association Watch, Maynard Alton Hincks, Portland.
Victoria Weeks Hacker Watch, Margaret Collins Churchill, Houlton.
Alpha Omicron Pi Alumnae Prize, Helen Mabel Blake, Lagrange.
Chi Omega Sociology Prize, Eva Myrtle Bisbee, Portland.
William Emery Parker Scholarship, Laurice Myron Stevens, Plymouth.
Class of 1905 Scholarship, Arthur Brooks Otis, Bridgton.
Henry L. Griffin Prize, Carl Huntington Bottume, Hamden, Conn.
Track Club Scholarship, Donald Emerson Favor, South Gray.
Greek Culture Prize, Katharyn Storer Giddings, Bangor.
Agricultural Club Membership Cup, Class of 1932.
Charles Rice Cup, Beta Theta Pi.
Twentieth Century Commencement Cup, Class of 1902.
Class of 1908 Commencement Cup, Class of 1882.
Pan Hellenic Sorority Cup, Sigma Tau.
Fraternity Scholarship Cup, Alpha Gamma Rho.
Phi Sigma Scholarship, Abraham Everett Rosen, Bangor.
Kappa Psi Music Prize, Linwood Jules Bowen, Bangor.
Women's Student Government Scholarship, No. 1, Ruth Isabel Callaghan, South Brewer.
Women's Student Government Scholarship, No. 2, Martha Ilona Tuomi, Monson.
Sigma Mu Sigma Award, Abraham Everett Rosen, Bangor.
Spanish Club Prize, Margaret Elizabeth Avery, Bangor.
Trustee Undergraduate Scholarships—At Large, Arthur Albert Francis Brown, Bangor; Agriculture, Clifton Nathaniel Walker, Wiscasset; Arts and Sciences, Clark Luce Abbott, North New Portland; School of Education, Mildred Corinne Brawn, Woodfords; Technology, Charles Durward Brown, Raymond.
Trustee Graduate Scholarships—Agriculture, no award; Arts and Sciences, Margaret Esther Fowles, Belfast; School of Education, Robert Browne Lunt, Bangor; Technology, Oscar Thomas Thompson, Lincoln.

Trustee Graduate Fellowships—Charles Munro Getchell, Oakland; Thomas Henry Baldwin, Jr., New Britain, Conn.; John Harold Mowat, Houlton.
Hovey Memorial Scholarships—Malcolm Graham Long, East Bluehill; Hollis Littlefield Leland, Bangor; Kent Fairfield Bradbury, Fort Kent.

Winners State Scholarship Contest Awarded June, 1932
Members of Class of 1936

Four-Year Scholarship

Donald Max Fitch, Orono High School, Orono.

Three-Year Scholarship

Alan Campbell Corbett, Orono High School, Orono.

Two-Year Scholarship

John Matthews Coombs, Boothbay Harbor High School, Boothbay Harbor.

One-Year Scholarship

Bernice Isabelle Yeomans, Lee Academy, Lee; Alice Wood Campbell, Machias High School, Machias; Vernon Arthur Herrick, Easton High School, Easton; William Hapgood Berry, Jr., Fryeburg Academy, Fryeburg.

Commencement 1932

THURSDAY, JUNE 9

5:30 P.M. Phi Kappa Phi Initiation—Library
Phi Kappa Phi Banquet—Colvin Hall

FRIDAY, JUNE 10

1:30 P.M. Annual Meeting of the Alumni Council—Library
2:30 P.M. Class Day Exercises—The Oval
4:00 P.M. Pageant—given by All Maine Women on Coburn Green
8:00 P.M. President's Reception (Informal)—President's House
9:00 P.M. Student Hop—Alumni Hall

SATURDAY, JUNE 11

9:30 A.M. Annual Meeting of General Alumni Association—Library
11:15 A.M. Reunion Class Meetings in headquarters rooms
12:30 P.M. Alumni Luncheon—Hannibal Hamlin Hall
1:45 P.M. Band Concert—The Oval
2:30 P.M. Reunion Class parade
2:45 P.M. Frolics—Alumni Field
Baseball game—Alumni vs. 1932—Alumni Field
5:30 P.M. Alumni Parade
6:00 P.M. Alumni Banquet—Alumni Hall
9:00 P.M. Alumni Hop—Alumni Hall

SUNDAY, JUNE 12

10:30 A.M. Baccalaureate Address—The Oval

MONDAY, JUNE 13

9:30 A.M. Commencement Exercises—The Oval
8:00 P.M. Commencement Ball—Alumni Hall

Degrees Conferred, 1932

College of Agriculture

Bachelor of Science

IN AGRICULTURAL ECONOMICS AND FARM MANAGEMENT

Harold Earle Bryant.....Fort Fairfield
Newton Collins Churchill.....Houlton
Norman Lufkin French.....Rumford Center
Maynard Alton Hincks.....Portland
Wallace Harlow Humphrey.....Greenwood, Mass.
Neal Hammond Landers.....Easton
Smith Charles McIntire.....Perham
George Nelson Umphrey.....Washburn

IN AGRICULTURAL EDUCATION

Austin Hervey Fittz, Jr.....Natick, Mass.

IN AGRONOMY

John Preston Doyle.....Caribou
Jerre Frank Hacker.....Fort Fairfield
Winthrop Charles Libby, *With Distinction*.....Caribou

IN ANIMAL HUSBANDRY

Stacy Ross Miller.....Carmel

IN BOTANY

Linwood Jules Bowen, *With High Distinction*.....Bangor

IN DAIRY HUSBANDRY

John Samuel Adams.....Gorham, N. H.
Matthias Plant Sawyer.....West Minot

IN ENTOMOLOGY

Alonzo Leighton Jones.....Berwick

IN FORESTRY

Edward Delmont Abbott.....Freeport
Allen Wheeler Bratton.....Williamstown, Mass.
Donald Everett Carter.....Orono
Wilfred Stanley Davis, *With Distinction*.....Mechanic Falls
William McKee Dunlap.....Canonsburg, Pa.
Virgil Tyler Gross.....Portland
David Henry Hanaburgh.....Buchanan, N. Y.
Edmund Thacher Hawes.....Fairhaven, Mass.
Merle Tyson Hilborn, *With Distinction*.....Philadelphia, Pa.
Charles Wisner Hutchinson.....Pepperell, Mass.
Roy Hayden McCray.....Madison
Stanley Curtis Pease.....North New Portland
Lyman Curtis Poole.....Pemaquid
Clarence Winslow Rand.....Andover
Philip Hatherly Randall.....Richmond
Orestes Lawrence Rumazza.....Rochester, N. H.
Thomas Russell.....Millinocket
Raymond Antone Smith.....Combined Locks, Wis.
Michael Harold Stalmuke.....Rumford
Charles Lowell Stewart, *With Highest Distinction*.....Rockland
Kenneth Berry Stone.....Augusta
Eustis Francis Sullivan.....Newburyport, Mass.
Edward Hayden Walker.....Bridgeport, Conn.
Donald Burns Wilson.....Bath

IN HOME ECONOMICS

Hazel Fisher Adams, *With Distinction*.....Boothbay Harbor
Dorothy Ethel Baker.....Auburn
Kathryn Stover Bowden.....Lucerne-in-Maine
Mildred Helena Boynton.....Millinocket
Ruth Mabelle Clark.....Castine
Ellen Hawley Frame.....Searsport
Ethel Mary Hilton.....Athens
Delphine M. Kendall Lane.....West Paris
Katherine Kilgore Mead.....Bangor
Laura Abigail Merrill.....Bangor
Louise Cecelia Miller.....Waterville
Marvia Mae Pooler.....Orono
Viola Nellie Purinton.....Bangor
Myrtleen Frances Snow.....Old Town

Dorothy Marie Somers, *With Distinction*.....Bangor
Edith Akers Talbot.....Orono
Margaret Lord Thompson.....Kennebunk
Gilberta Phoebe Watters.....Bangor

IN HORTICULTURE

Vernon Lloyd Hodgkin.....New Gloucester
Gerald Lewis Kinney.....Bangor

IN POULTRY HUSBANDRY

George Byron Finley.....Washington

College of Arts and Sciences

Bachelor of Arts

IN BIOLOGY

Robert Livingston Douglas.....Rumford

IN CHEMISTRY

Harry Paul.....Chelsea, Mass.

IN ECONOMICS AND SOCIOLOGY

Cedric Loring Arnold.....Swampscott, Mass.
Thomas Henry Baldwin, Jr.....New Britain, Conn.
Francis Jaques Battles.....Lowell, Mass.
Austin Dexter Beechler.....South Manchester, Conn.
Margaret Estelle Burrill.....Bangor
Reginald Edgar Darvill.....Sanford
Alden Frank Denaco.....Bangor
Eleanor George Dow.....Bangor
Leo Glazer.....Gardiner
William Whidden Johnson.....Orono
Norton Haskell Lamb.....Portland
Elton James Libby.....Portland
George Holland Loane.....Presque Isle
Johnson Lombard Lowell.....Lee
Anna Matilda Lyon.....Bar Harbor

Lionel Arthur Maillet.....Rumford
Hildreth Montgomery.....Bucksport
Robert Cushman Morse.....Marlboro, Mass.
Cyrus Lunt Ricker.....Waterboro
Robert Stevens Shean.....Bangor
James Milton Sims.....Southbridge, Mass.
Guy Vincent Sinclair.....Westbrook
Arthur David Stern.....Bangor
Herbert Irving Trask.....Mechanic Falls
Katherine Woodworth Trickey, *With Distinction*.....Bangor
Paul Clifford Williamson.....Augusta
Philip Radcliffe Yerxa.....Bangor

IN ENGLISH

Mary Gilman Bean.....Bangor
Oscar Franklin Candage.....Bluehill
Geraldine Chase.....Limestone
Clarine Mildred Coffin.....Bangor
Katherine Clara Elliot.....Rumford Point
Marion Ruth Ewan.....Eastport
Madeline Hazel Field.....Vanceboro
Erma Gross Fletcher.....Belfast
Muriel Freeman, *With Distinction*.....North Windham
Thelma Pike Gibbs.....Kent's Hill
Mary Darrah Herrick.....Bangor
Pauline Isabel McCready.....Bangor
Margaret Annette Merrill.....Old Town
Esther Moore, *With Distinction*.....McKinley
Isabelle Avesia Robinson, *With Distinction*.....Old Town
Geraldine Elizabeth Shean.....Bangor
Ivan Cecil Sherman.....Union
Rebecca Tarbox Spencer.....Biddeford
Wilfrid Lewis Spruce.....Milford
Helen Ward Stearns.....Millinocket
Una Eleanor Wass.....Addison
Elna Aldrich Whitney.....Milford, Mass.
Bernice Ruth Woodman.....Washburn

IN FRENCH

Beulah Marie Bradbury.....Bangor
Sylvia Lorraine Hickson.....Bangor

Jeanne Lépine.....Biddeford
Carolyn Elizabeth McIntosh.....Bangor
Hildreth Matheson.....Bangor
Hazel Stewart Mead.....Bangor

IN HISTORY AND GOVERNMENT

Margaret June Armstrong.....Vanceboro
Frank Willis Austin.....South Berwick
Doris Mae Baker.....Westbrook
Merton Edward Berry.....Dover-Foxcroft
Linwood Shaw Elliott.....Portland
Howard Saunders Emery.....Bangor
George Marion Field.....Detroit
Margaret Esther Fowles, *With Distinction*.....Belfast
Walter Rayford Leach.....Penobscot
Donald Monroe McCormick.....Orono
Priscilla Noddin.....North Anson
Harold Stanley Robinson.....Brownville Junction

IN LATIN

Josephine Albina Carbone.....Boothbay Harbor
Marian Louise Davis.....Port Clyde
Abbie Louise Sargent.....Sargentville

IN MATHEMATICS

John Charles Bohnson, Jr.....Portland
William Wirt Brown, Jr.....Old Town
Harriette Elizabeth Cross.....Bangor
Elsie Mary Crowell.....Corinna
Edgar Raymond Crozier.....Brownville
Lester Calvin Fickett.....Skowhegan
Samuel Adam Kick.....Lisbon Falls
Florence Marion Lewis.....Springfield
Angela Miniutti.....North Berwick
William Murphy.....Bangor
Theodore Ernest Nutting.....South Paris
Horace Chase Porter.....Searsport
Norman Laurence Schultz.....Lisbon Falls
Joseph Louis Senechal.....Stafford Springs, Conn.

Aubrey Hamilton Snow.....Howland
Walter Nelson Sundstrom.....North Berwick

IN PSYCHOLOGY

Arthur Stone Fairchild.....Buzzards Bay, Mass.
Dorothea Louise Greene.....Pembroke
Homer Woodbridge Huddilston.....Orono
Arthur Raymond Lufkin, Jr.....Medford, Mass.
Malcolm Young McCormick.....Orono
Francis Galarneaux Ricker.....Milford
Marjorie Deane Stevens.....Bangor

IN PUBLIC SPEAKING

John Thomas Barry, Jr.....Bangor
John Gay McGowan.....Cambridge, Mass.
Stanley Joseph Protas.....Biddeford

IN SPANISH

Katharyn Storer Giddings.....Bangor

IN SPANISH AND ITALIAN

Rachel Gilbert.....Bangor
Asa Herbert Stanley, Jr.....Mattawamkeag

IN ZOOLOGY

Smith Whittier Ames.....Orono
Louis Anthony Asali.....Portland
Margaret Anna Buck.....Bangor
Margaret Collins Churchill.....Houlton
James Hartley Crowe.....Woodland
Merton Newcomb Flanders.....Portland
Anthony James Gatti.....Rockland
Walter Louis Henry Hall.....Orono
Paul Francis Jarrett.....Stamford, Conn.
Amel Francis Kiszonak.....Lisbon Falls
Francis Joseph McCabe.....South Berwick
Richard Wentworth McNamara.....Winthrop
Hector Corverlie Michaud.....Waterville
John Joseph Pearson, Jr.....Middleboro, Mass.
Olive Perkins.....Kennebunk Beach

Rosella Evelyn Randall.....Westbrook
Beulah Maude Starrett.....Warren
William Wolf Weiner.....Bangor
Philip Alan Weymouth.....Winchester, Mass.
James Francis Whitten.....Farmington

School of Education

Bachelor of Arts in Education

Eleanor Clark Meacham.....Bowdoinham
Charles Loring Puffer, Jr.....Weld
Lydia Erickson Wear, *With Distinction*.....Orono

Bachelor of Science in Education

Marie Louise Beaulieu.....Lewiston
Madelene Ellen Duncan.....Presque Isle
Marion Lee Jaques.....Bath
Eleanor Kane, *With Distinction*.....Eastport
Golden Grace Marks.....Limestone
Murdock Scribner Matheson.....St. Francis
James Carroll Nolan.....Bar Harbor
Oveid Baptist Packard.....Dexter
Morris Reed Robinson.....Island Falls
Mollie Rubin.....Bangor
Donis Averill Scott.....Bangor
Marion Edith Searles.....New Bedford, Mass.
Irving Wheelock Small.....Bangor
Clayton Jefferson Sullivan.....Houlton

College of Technology

Bachelor of Science

in chemistry

Donald Tillson Achorn.....Saco
William Grinnell McLaughlin.....Exeter
Alfred Perley McLean.....Houlton

John Harold Mowat.....Houlton
Albion Vernon Osier.....New Harbor
Ralph Nelson Prince.....Kittery
Philip Rubin.....Bangor
Clarence Shapero.....Bangor
Willard Batchelder Stone.....Alfred
Paul Lewis Taplin.....Middlesex, Vt.

IN CHEMICAL ENGINEERING

George Hayes Andrews.....Augusta
Henry Gibson Booth.....Bradford, Mass.
Harry James Burnham.....Saco
Chester Whitfield Burris.....North Sullivan
Albert Arch Dekin.....Milford
John Doyle Dickson, Jr.....Waterford, N. Y.
Enright Augustus Ellis.....Downingtown, Pa.
Henry Hayes Favor, *With Distinction*.....Norway
William Foley.....Bar Harbor
Carlton Littlefield Goodwin.....Springvale
William Fee Hathaway.....Kalamazoo, Mich.
Marcel François L'Heureux, *With Distinction*.....Lewiston
Clayton Roger Lothrop.....Pine Point
Roscoe Chaney Masterman.....Jay
Keith Weston Percival.....Bangor
Albert James Smith, *With High Distinction*.....Hempstead, N. Y.
Oscar Thomas Thompson, *With Distinction*.....Lincoln
Harold Kenneth Willetts.....West Hartford, Conn.

IN CIVIL ENGINEERING

Malcolm Leslie Buchan.....North Andover, Mass.
Neil Moody Calderwood.....Vinalhaven
Lovell Converse Chase.....Houlton
Fred Bernard Clark.....Hollis Center
Clayton Haines Hardison, *With Highest Distinction*.....Caribou
Gordon Sampson Hayes.....Oxford
Seth Purvis Jackson.....Old Town
Benedict Augustine Kelley.....Brooks
Donald Leroy Lester.....Woodfords
Malcolm Graham Long, *With Highest Distinction*.....East Bluehill
Kenneth Scott Ludden.....Bangor
Fred Vernard Overlock.....Thomaston

Frank Edward Patten, Jr. ..... Cherryfield
Winston Churchill Robbins ..... Brewer
Leon Emery Savage ..... Fairfield
Alfred John Scelfo ..... Newark, N. J.
Russell Orin Scribner ..... Bangor
Robert Eugene Timberlake ..... South Portland
Leon Eugene Trueworthy ..... Mattawamkeag
John Joseph Velten ..... Baltimore, Md.
Robert McCue Vickery ..... Hallowell
Raymond Thomas Wendell ..... Oakland

IN ELECTRICAL ENGINEERING

Everett Kimball Adams ..... Belfast
Walter James Anliker ..... Bath
Lewis William Barrett ..... Bangor
Ralph Conway Brooks, *With High Distinction* ..... Ogunquit
Aubert Porter Burnham ..... Old Town
William Scott Davis ..... Brunswick
David Corson Garland ..... Waterville
Frank Rich Goodwin ..... Brooks
Everett Albert Gunning ..... Waterville
Arthur Capen Holbrook ..... Holbrook, Mass.
Henry Frank Howes ..... Ashland, Mass.
Raymond Additon Hunter, *With High Distinction* ..... Unity
Vaughn Douglas Knight ..... Limestone
Edgar Emerson McCobb ..... Camden
Thomas Morrison ..... Inverness, Scotland
Harland Oscar Poland, *With Distinction* ..... Stillwater
Lawrence Carlton Randall ..... Freeport
Joseph Percy Seltzer ..... Fairfield
Lawrence Richardson Sweetser ..... Presque Isle
Roland James Tibbetts ..... Vanceboro
Hubert Allen Vernon ..... Vanceboro
Benjamin Thomas Wood ..... Waterville
Ronald Everett Young ..... Northeast Harbor

IN MECHANICAL ENGINEERING

Ronald Ermont Austin ..... Springvale
Edward Wiley Buzzell ..... Fryeburg
Vaughan Herbert Cogswell ..... Fort Fairfield
Jules Anthony Desjardins ..... Old Town

Urban Henry Despres.....Auburn
Curtis Albert Fisher.....South Portland
Willard Myron Gilmore.....Waterville
Arthur Whittier Hall.....Bath
Stanley Greene Hayter.....Clinton, Mass.
Franklin Varney Heald.....Buckfield
Albert Henry Howes, *With Distinction*.....Bingham
Laurence Hubert Huot.....Saco
Alexander Kazutow.....Bangor
Peter Julian Kuntz.....Treichler, Pa.
John Murchie Lane.....Calais
Julius Edwin Lapp.....Hudson, N. Y.
Wheeler Godfrey Merriam, *With Distinction*.....Framingham, Mass.
John Redman Moore.....Ellsworth
Hugh Hayden Morton.....South Paris
Ralph Gladding Munroe, *With Distinction*.....Attleboro, Mass.
Francis Davidson Murphy, *With Distinction*.....Oakfield
Donald Eugene Pressey, *With Distinction*.....Bangor
John Howard Rand.....Livermore Falls
Jesse Everett Ray, Jr.....St. Albans
Walter Edgar Riley.....Portland
John William Roche.....Portland
John Weldon Russell.....Millinocket
Ernest Elliot Sparrow.....Hampden Highlands
Leon Eugene Spurling.....Gouldsboro
Edward John Stevens, Jr.....Portland
Loring Raymond Swain.....Weld
Everett Walter Teague.....Newburyport, Mass.
Robert Theodore Weston.....Madison
Philip Manson Williams.....Oakland

Advanced Degrees

Master of Arts

in chemistry

Irene Gustava Otto (B.A., Maine, 1931).....Covington, Ky.
A Study of the Quantitative Determinations
of Magnesium and Calcium

IN ECONOMICS

VANCE GERALD SPRINGER (B.A., Maine, 1931) ..... Danforth
Public Utility Control and Regulation in Maine

CHARLES WILLIAM STIPEK (B.A., Maine, 1931) ..... Bangor
Corporate Dividend Stabilization and the National Income

IN EDUCATION

CHRISTINE ADELIA NORTHRUP (B.A., Maine, 1919) ..... Brockton, Mass.
A Supplement to the Study of Caesar's Gallic Wars

EVELYN BUTLER PHILLIPS (B.A., Bates, 1926) ..... Dover-Foxcroft
An Analysis of the Curricula Offered in the Small High Schools of Maine

IN ENGLISH

PHILIP MERRILL MARSH (B.A., Maine, 1929) ..... Portland
The Familiar Essays of Philip Freneau

IN MATHEMATICS

HAROLD EVERETT BOWIE (B.A., Maine, 1928) ..... Lisbon Falls
An Investigation of the Geometry of the Tetraedron

RAYMAH TWINING WRIGHT (B.A., Wheaton, 1927) ..... Andover, Mass.
The Development of a Trigonometry Based upon the Exponential Definitions of the Sine and Cosine

IN PHYSICS

HELEN MOORE (B.A., Maine, 1929) ..... Orono
The Magnetic Field Intensity Due to a Current in a Circular Coil of Wire, at any Point in the Plane of the Coil, and Outside of it

MASTER OF SCIENCE

IN AGRICULTURAL ECONOMICS AND FARM MANAGEMENT

VERNON ALFRED GAMAGE (B.S., Maine, 1929) ..... Litchfield
The Status of Coöperative Organizations in Maine

IN BACTERIOLOGY

Norman Callender Laffer (B.S., Allegheny, 1929) ..... Orono
A Cultural Study of Micro-organisms Producing a Slimy Condition in Milk

IN CHEMICAL ENGINEERING

Tsung Ho Wang (B.S., Yenching, 1928) ..... Amoy, China
An Investigation of Suitability of Chinese Pinus and Chamaecyparis from Fukien Province, China, for Pulp and Paper Manufacture

IN EDUCATION

John Coffey Hylan (B.S., Bates, 1926) ..... Chester, Vt.
The History of Secondary Education in York and Oxford Counties in Maine

IN ELECTRICAL ENGINEERING

Edwin Charles Guptill (B.S., Maine, 1931) ..... East Baldwin
Thermal Problems of Electrical Machinery

Raymond Hewes Morrison (B.S., Maine, 1928) ..... Bangor
The Application of Electricity in the Iron and Steel Industry

IN HORTICULTURE

Roger Clapp (B.S., Cornell University, 1928) ..... Orono
Woody Plant Materials Suitable for Landscape Planting in Maine

IN MATHEMATICS

Norton Claude Brown (B.S., Cornell University, 1926) .....
..... West Brighton, Staten Island, N. Y.
An Investigation of the Development of Limits in the Early Calculus

IN PLANT PATHOLOGY

Irvin Carrol Mason (B.S., Maine, 1930) ..... Locke's Mills
Varietal Susceptibility of Beans to Cultures of Bean Anthracnose

Civil Engineer

Cecil Roland Jones (B.S., 1923) ..... Balboa Heights, Canal Zone

Electrical Engineer

Warren Emery Creamer (B.S., 1928) ..... Syracuse, N. Y.
Kenneth Sellers Field (B.S., 1927) ..... Chelmsford, Mass.

Mechanical Engineer

Leon Snell Dixon (B.S., 1908) ..... Ottawa, Ontario
Carl Burleigh Eastman (B.S., 1925) ..... Philadelphia, Pa.

Certificate

In the Two-Year Course in Agriculture

Bruce Evan Dickson ..... Wiscasset
Lore Hemenway Ford, Jr. ..... Whitefield
Robert Carroll Jones ..... Sabattus

Departmental Honors

in economics and sociology

Thomas Henry Baldwin, Jr.
Katherine Woodworth Trickey

in english

Clarine Mildred Coffin
Isabelle Avesia Robinson

in history and government

Margaret Esther Fowles

in mathematics

Harriette Elizabeth Cross
Horace Chase Porter
Norman Laurence Schultz

IN SPANISH AND ITALIAN

RACHEL GILBERT

The following received commissions as Second Lieutenant, Officers' Reserve Corps

INFANTRY

FERNALD STUMBLES BAGLEY
ROBERT LOUIS BITTNER
NEWTON COLLINS CHURCHILL
LINWOOD SHAW ELLIOTT
MAYNARD ALTON HINCKS
AMEL FRANCIS KISZONAK
FRANCIS JOSEPH MCCABE
EDGAR EMERSON MCCOBB
WHEELER GODFREY MERRIAM
JAMES MILTON SIMS
RONALD EVERETT YOUNG

Honorary Degrees

JOANNA CARVER COLCORD, Master of Arts
EDWARD FRANKLIN DANFORTH, Master of Arts
WILLIAM TUDOR GARDINER, Doctor of Laws
CLARENCE COOK LITTLE, Doctor of Letters
ALBERT WILLIAM STEVENS, Doctor of Engineering
EDWARD BRACKETT WINSLOW, Master of Arts

Catalog of Students

Major subjects are indicated as follows: Ae. Agricultural Education, Ag. Agronomy, Agr. Agriculture, An. Animal Husbandry, Bc. Biological Chemistry, Bt. Botany, By. Bacteriology, Ch. Chemistry, Ch.Eng. Chemical Engineering, Ce. Civil Engineering, Dh. Dairy Husbandry, Dt. Dairy Technology, Ed. Education, Ee. Electrical Engineering, Eh. English, En. Entomology, Eng. Engineering (Course not specified), Es. Economics and Sociology, Fm. Agricultural Economics and Farm Management, Fy. Forestry, Fr. French, Ge. General Engineering, Gm. German, Hy. History and Government, He. Home Economics, Ht. Horticulture, Lt. Latin, Me. Mechanical Engineering, Ms. Mathematics, Pb. Public Speaking, Pc. Physiological Chemistry, Pg. Physiology, Ph. Poultry Husbandry, Pl. Philosophy, Pp. Plant Pathology, Ps. Physics, Py. Psychology, Sp. Spanish and Italian, Zo. Zoology. Chemistry in the College of Arts and Sciences is indicated by Ch.A.

GRADUATE STUDENTS

Adams, Dorinda Ann, B.A., Eh. Marymount, 1931	*Bangor*	19 Grove Street, Bangor
Ames, Louise Bates, B.A., Py. Maine, 1930	*Orono*	47 Mill Street
Ames, Smith Whittier, B.A., Zo. Maine, 1932	*Orono*	47 Mill Street
Anderson, Miriam Sylvia, B.A., Ed. Maine, 1930	*Monson*	The Maples
Annis, Roger Lee, B.S., Ch.Eng. Maine, 1931	*Old Town*	384 South Main Street, Old Town
Baker, Dorothy Ethel, B.S., He. Maine, 1932	*Portland*	North Hall
Baldwin, Thomas Henry, Jr., B.A., Es. Maine, 1932	*New Britain, Conn.*	B Θ Π House
Barker, David Emmons, B.A., Es. Maine, 1931	*Dover-Foxcroft*	374 French Street, Bangor
Blanchard, Fred Eugene, B.S., Dh. Vermont, 1931	*Readsboro, Vt.*	23 Park Street

Brush, George Robert, Jr., B.A., Fr. Vermont, 1931	*Orono*	Parkview Apartments
Captain, Jean Louise, B.A., Zo. Mt. Holyoke, 1931	*Montclair, N. J.*	Balentine Hall
Chandler, Gladys Nordeen, B.S., Py. Minnesota, 1927	*Orono*	104 North Main Street
Chaplin, Leola Bowie, B.A., Eh. Maine, 1917	*Cornish*	Balentine
Clapp, Roger, B.S., M.S., Ht. Cornell University, 1928; Maine, 1932	*Orono*	39 Pine Street
Conley, Albert Davis, B.S., Ch.E., M.S., Ms. Maine, 1911, 1914, 1916	*Freeport*	66 College Road
DeGagné, Marthe Cleo, B.A., Eh. Maine, 1930	*Portland*	20 Forest Avenue
Dirks, Charles Orville, B.S., M.S., En. Kansas State, 1924; Iowa State, 1925	*Orono*	100 North Main Street
Dow, Eleanor George, B.A., Es. Maine, 1932	*Bangor*	8 Union Place, Bangor
Downes, Frances Cole, B.A., Zo. Maine, 1931	*Winterport*	14 Middle Street
Finnegan, Mary Hilda, B.A., Eh. St. Elizabeth, 1932	*Bangor*	55 Congress Street, Bangor
Fowles, Margaret Esther, B.A., Hy. Maine, 1932	*Belfast*	North Hall
Freeman, Muriel, B.A., Gm. Maine, 1932	*North Windham*	24 Oak St.
Garland, Gladys, B.S., Ch. Simmons, 1918	*Bar Harbor*	University Inn
Getchell, Charles Munro, B.A., Eh. Maine, 1930	*Oakland*	66 College Road
Gilbert, Rachel, B.A., Sp. Maine, 1932	*Bangor*	35 Howard Street, Bangor
Goode, Robert Donald, B.A., Es. Maine, 1932	*Bangor*	228 Palm Street, Bangor
Hawkins, John Henry, B.S., M.S., En. Illinois, 1926; Maine, 1927	*Orono*	R.F.D. #7, Bangor
Heilman, Robert Bechtold, B.A., M.A., Gm. Lafayette, 1927; Ohio State, 1930; Harvard, 1931	*Orono*	Parkview Apartments

Hilborn, Merle Tyson, B.S., Bt. *Orono* 7 Pleasant Street
Maine, 1932
Hincks, Maynard Alton, B.S., Fm. *Orono* 84 Main Street
Maine, 1932
Husson, Chesley Harwood, B.S. Ed., Ed. *Bangor*
Salem State Teachers, 1926 359 Hammond Street, Bangor
Hyland, Fay, B.S., M.S., Bt. *Orono* 180 Main Street
Michigan State, 1925; Maine, 1929
Lamoreau, Fred Lincoln, B.A., Ms. *Orono* 28 Crosby Street
Maine, 1930
Landers, Neal Hammond, B.S., Fm. *Easton* 27 Park Street
Maine, 1932
Largay, John Edward, B.A., Es. *Bangor* 80 Birch Street, Bangor
Manhattan, 1931
Lefler, Mary Staley, B.A., Eh. *Orono* 23 Park Street
Indiana, 1929
Lengyel, Helen Anna, B.A., Py. *Orono* 31A Mill Street
Maine, 1927
Lewis, Keith H., B.A., By. *Orono* 59 College Road
Wisconsin, 1932
Libby, Winthrop Charles, B.S., Fm. *Caribou* 29 Pond Street
Maine, 1932
Light, Elden Everett, B.S., Ch.Eng. *Waldoboro* 48 Pine Street
Maine, 1931
Linscott, Walter Leslie, B.A., Ed. *Bar Harbor*
Colby, 1931 24 First Street, Bangor
Lunt, Robert Browne, B.S., Ed. *Northeast Harbor* 32 Pierce Street
Colby, 1930
McCormick, Donald Munroe, B.A., Hy. *Orono* 55 North Main Street
Maine, 1932
Mendall, Howard Lewis, B.A., Zo. *Augusta* 35 Grove Street
Maine, 1931
Monroe, Merna Myrtha, B.S., M.S., Fm. *Orono* 67 Main Street
Iowa State, 1929; Kansas State, 1932
Moreland, James, B.A., Eh. *Orono* 11 Main Street
Georgetown College, 1924
Morrill, Frieda Kirkendall, B.A., Ed. *Portland* 28 Mill Street
Defiance, 1916
Morris, Delyte Wesley, B.A., Eh. *Orono* 158 Main Street
Park, 1928

Mowat, John Harold, B.S., Ch. Maine, 1932	*Houlton*	46 Main Street
Murphy, Elizabeth Florence, B.A., Pg. Maine, 1930	*Bangor*	57 Pearl Street, Bangor
Ogden, Eugene Cecil, B.S., Bt. Michigan State, 1932	*Orono*	38 Pierce Street
Page, Madelyn Loy, B.M., Ed. Boston University, 1932	*Orono*	37 Middle Street
Perkins, Alfred Warren, B.A., Ms. Maine, 1931	*North Brooksville*	29 Forest Avenue
Pratt, Horace Asa, B.S., Ce. Maine, 1930	*Hinckley*	14 Mill Street
Riley, George Archibald, B.A., Es. Tufts, 1928	*Ellsworth*	60 Hancock Street, Ellsworth
Robbins, Winston Churchill, B.S., Ce. Maine, 1932	*Brewer*	Φ H K House
Robinson, Isabelle Avesia, B.A., Eh. Maine, 1932	*Old Town*	183 Stillwater Avenue, Old Town
Rogers, Marion Elizabeth, B.A., Py. Maine, 1930	*Orono*	162 College Road
Rogers, Rachel Louise, B.A., Ps. Oberlin, 1931	*Newburyport, Mass.*	34 Forest Avenue
Sargent, Abbie Louise, B.A., Sp. Maine, 1932	*Sargentville*	9 Forest Avenue
Sawyer, Ralph Albert, B.S., Ed. Norwich, 1925	*Orono*	1 Spencer Lane
Shapero, Clarence, B.S., Ch. Maine, 1932	*Bangor*	30 Adams Street, Bangor
Shaw, Richard Nutting, D.V.M., Zo. Cornell University, 1912	*Garland*	Garland
Smith, Allston Edward, B.S. in Ed., Ed. Boston University, 1926	*Calais*	105 Main Street
Smith, Ethel Foster, B.A., Hy. Bates, 1906	*Orono*	39 Mill Street
Smith, William Eaton, B.S., Ch.Eng. Maine, 1931	*Bucksport*	Σ Φ Σ House
Spruce, Wilfrid Lewis, B.A., Eh. Maine, 1932	*Milford*	Milford
Taylor, Ruth Madeline, B.S., Eh. Simmons, 1930	*Calais*	33 Bennoch Street

Thompson, Oscar Thomas, B.S., Ch.Eng. Maine, 1932	*Lincoln*	48 Pierce Street
Thompson, Sarah Jane, B.A., Zo. Maine, 1929	*Millinocket*	24 Willow Street, Old Town
Wilson, Edith G., B.A., M.A., Ms. Southern California, 1923, 1928	*Orono*	129 Main Street
Wood, Katherine Alma, B.A., Lt. New Hampshire, 1927	*Orono*	60 Park Street
Worster, Edwin Sherman, B.A., Fr., Lafayette, 1931	*Brooklyn, N. Y.*	Parkview Apartments

SENIORS

Abbott, Clark Luce, Es.	*No. New Portland*	Σ A E House
Ackroyd, Whiteley Innes, Ce.	*Needham, Mass.*	Σ Φ Σ House
Adelman, Marcia Ada, Es.	*Bangor*	Colvin Hall
Alley, Alton Wadsworth, Ce.	*Calais*	Φ M Δ House
Anderson, Bessie Lugene, Eh.	*Sherman Station*	347 Hammond Street, Bangor
Ansur, Annie Petrone, Lt.	*Dover-Foxcroft*	Balentine Hall
Ashton, Vincent Hobson, Ps.	*Norway*	A T Ω House
Ashworth, William Bruce, Me.	*Orono*	88 North Main Street
Bachrach, Samuel, Ch.A.	*Maynard, Mass.*	T E Φ House
Bagley, Fernald Stumbles, Es.	*Augusta*	A T Ω House
Ball, John Rodney, Jr., Es.	*Lawrence, Mass.*	Δ T Δ House
Ballard, Doris Dolores, Eh.	*Rockport*	Colvin Hall
Bankus, John Thomas, Fy.	*Lynn, Mass.*	Θ X House
Barrett, Harold Joseph, Fy.	*Newburyport, Mass.*	Φ K House
Barrows, Elizabeth Sale, Lt.	*Brunswick*	The Maples
Barry, Jane, Lt.	*Thomaston*	Balentine Hall
Barry, Stephen Ayrault, Me.	*Thomaston*	B K House
Barton, Cora Rebecca, Ed.	*Houlton*	9 Forest Avenue
Bates, Howard Carleton, Me.	*Bath*	H N H House
Bell, Priscilla Ann, Fr.	*Bangor*	Colvin Hall
Billings, Ronald Glendon, Ed.	*North Ellsworth*	Δ T Δ House
Black, Phyllis Joan, Ed.	*Vinalhaven*	Balentine Hall
Blair, Dorothy Whidden, Eh.	*Westbrook*	Balentine Hall
Blaisdell, Robert Woodruff, Fy.	*Franklin*	Stillwater
Blake, Donald Corydon, Es.	*Dexter*	Δ T Δ House

Bolan, Edith May, Zo.	*Winterport*	23 Bennoch Street
Booker, Guy Allen, Me.	*Gardiner*	Λ X A House
Booth, Harry Edward, Fy.	*Lewiston*	Φ H K House
Bowen, Ruth Young, Eh.	*Orono*	18 Penobscot Street
Boyle, Donald James, Es.	*North Berwick*	B K House
Bradbury, Clarence Henry, Me.	*Bangor*	Φ K House
Bradstreet, Mildred Cordelia, Fr.	*Orono*	121 North Main Street
Bratton, William VanDeusen, Es.	*Williamstown, Mass.*	Φ Γ Δ House
Brawn, Mildred Corinne, Ed.	*Woodfords*	Colvin Hall
Brock, Philip Stanton, An.	*Waterboro*	A Γ P House
Brown, Annie Lora, Ms.	*Kenduskeag*	Balentine Hall
Brown, Arthur Albert Francis, Ms.	*Bangor*	Λ X A House
Brown, Benjamin Edgar, Fy.	*Machiasport*	29 Forest Avenue
Brown, Charles Durward, Me.	*Raymond*	10 Oak Street, Old Town
Brown, Polly Frances, Eh.	*Bangor*	Mt. Vernon House
Brown, Robert Stanton, Fy.	*Poquonock, Conn.*	29 Forest Avenue
Brown, Walter David, Eh.	*Harmony*	86 Mill Street
Bullen, George, Ee.	*Lee*	Φ H K House
Bunker, Charles Eugene, Es.	*Bangor*	Λ X A House
Bunker, Oscar Hysom, Ch.Eng.	*West Sullivan*	Σ X House
Burk, Frederick Carlton, Fy.	*Peru, N. Y.*	211 H. H. Hall
Burton, Leroy Austin, Fy.	*Thomaston*	25 Grove Street
Burton, Luthera Hilt, Eh.	*Thomaston*	Balentine Hall
Busse, Frances Alfreda, Eh.	*Belfast*	Balentine Hall
Butler, Paul Grant, Ch.	*Portland*	384 College Road
Calderwood, Samuel Henry, Es.	*Searsport*	5 Park Street
Callaghan, Ruth Isabel, He.	*South Brewer*	North Hall
Chandler, John Millbury, Ch.Eng.	*South Paris*	Φ M Δ House
Chapman, Douglas Thomas, Ce.	*Woodland*	Σ Φ Σ House
Chase, Hobart Holbrook, Ch.Eng.	*Orono*	A T Ω House
Clapp, Grace Katherine, Ed.	*Orono*	39 Pine Street
Clement, Louise, Eh.	*Portland*	Colvin Hall
Clements, Helen Carolyn, He.	*Winterport*	25 Myrtle Street
Clifford, Robert Lincoln, Ce.	*Dexter*	Φ H K House
Cloutier, Wallace Edmund, Ae.	*Lewiston*	Φ K House
Coggins, Donald Irving, Ee.	*Malden, Mass.*	B Θ Π House

Cohen, Pauline Anna, Gm.	*Bangor*	50 E. Summer Street, Bangor
Cohen, Philip Rupert, Py.	*Bangor*	Τ Ε Φ House
Collins, Eulalie Bernice, He.	*Bangor*	Colvin Hall
Comins, Jerome Harris, Ee.	*Rockland*	36 College Road
Cotter, John Bradley, Me.	*Orono*	67 Mill Street
Craig, Francis Albert, Me.	*Worcester, Mass.*	Φ Γ Δ House
Crocker, Harold Keene, Ms.	*Vanceboro*	111 Mill Street
Cronkright, Arthur Bradford, Ce.	*Arlington, N. J.*	Β Κ House
Cross, Eleanor Ferguson, Sp.	*Bangor*	96 Garland Street, Bangor
Cunningham, George Snowdeal, Ed.	*Whitefield*	14 Pond Street
Cunningham, John Symonds, Me.	*Portland*	Σ Φ Σ House
Currie, Clayton Moores, Me.	*Houlton*	43 Main Street
Currie, Frank Sherman, Me.	*Cambridge, Mass.*	36 College Road
Dane, Edwin Moore, Py.	*Skowhegan*	Φ Μ Δ House
Davis, Elisabeth Holbrook, He.	*Vanceboro*	Colvin Hall
Davis, Emil Arthur, Me.	*Bangor*	124 Kenduskeag Avenue, Bangor
Davis, Margaret Louise, Ms.	*Woodland*	Balentine Hall
Deane, Edith Lillias, He.	*North Anson*	Colvin Hall
Decker, Laurence Franklin, Ce.	*Clinton*	Φ Η Κ House
DeMeyer, Daisy Alberta, Eh.	*Eastbrook*	Balentine Hall
Denton, Margaret Eloise, Lt.	*Caribou*	Balentine Hall
Desmond, Thomas Joseph, Jr., Ch.Eng.	*Portland*	Θ Χ House
Dickerson, Kenneth John, Me.	*Biddeford*	Σ Φ Σ House
Dickson, Marion Smart, He.	*Ridlonville*	Balentine Hall
Doane, William Holman, Ce.	*Portland*	Λ Χ Α House
Doe, Harold Oliver, Eh.	*Bangor*	100 Highland Street, Bangor
Downing, Robert Briggs, Es.	*Hampden Highlands*	107 Grove Street, Bangor
Doyle, John Peter, Ce.	*Portland*	303 H. H. Hall
Drisko, Sewall Marsten, Ed.	*Harrington*	45 Peters Street
Dunn, Merrita Lizzie, Eh.	*Bangor*	Balentine Hall
Duplisea, Garald Chase, Ce.	*Houlton*	Θ Χ House
Eldridge, Dana Alvah, Ee.	*Gardiner*	Φ Κ Σ House
Elliott, Richard Edwin, Fy.	*Patten*	Φ Κ Σ House
Elmore, John Henry, Ee.	*Orono*	104 Main Street

Emple, Hyman William, Es.	*Bangor*	146 Cumberland Street, Bangor
Eskenas, Victor Harry, Es.	*Orono*	T E Φ House
Farnsworth, John Pullman, Ce.	*South Portland*	Φ K House
Findlay, Dorothy May, He.	*Portland*	Colvin Hall
Findlay, Helen Emma, Pb.	*Portland*	Colvin Hall
Fitzgerald, Millard Fillmore, Fm.	*Presque Isle*	Δ T Δ House
Fitzgerald, Walter Benjamin, Ce.	*Canaan*	23 Spencer Avenue
Fleischer, Harold William, Zo.	*Chelsea, Mass.*	T E Φ House
Fleming, Agnes Cecelia, Ed.	*Milltown*	Balentine Hall
Fobes, Charles Bartlett, Fy.	*Woodfords*	Φ M Δ House
Folsom, Beatrice Luella, Lt.	*Newport*	Balentine Hall
Forrestall, Arthur Thomas, Es.	*Portland*	Φ K Σ House
Fortier, Lucian Keith, Ee.	*Springfield*	Φ H K House
Frazier, Donald Edward, Ch.Eng.	*Norwood, Mass.*	K Σ House
Friend, Philip Stearns, Ce.	*Bangor*	B K House
Frohock, Warren Stoddard, Ee.	*Augusta*	66 College Road
Frost, Gerald Oliver, Ee.	*Monmouth*	Σ A E House
Fuller, James Wilson, Ch.	*Hartland*	Φ Γ Δ House
Garvin, Arthur Holland, Ms.	*Portland*	Φ H K House
Giddings, Edwin Lathrop, Fy.	*West Hartford, Conn.*	Φ K Σ House
Gillson, Sam, Es.	*Newport, R. I.*	10 Main Street
Gilman, Helen Margaret, Ed.	*Portland*	Balentine Hall
Gleason, Evelyn May, Es.	*Arlington, Mass.*	Balentine Hall
Gonzals, John Peter, Ee.	*Taunton, Mass.*	Θ X House
Goode, Dorothea Jane, Ms.	*Bangor*	228 Palm Street, Bangor
Gordon, John Lee, Ch.	*Portland*	384 College Road
Grange, Edna Louise, Eh.	*Smyrna Mills*	Colvin Hall
Graves, Lorimer Arbury, Ch.Eng.	*South Weymouth, Mass.*	Σ N House
Grilley, Edwin Warner, Jr., Hy.	*Stockton Springs*	Bangor Theological Seminary
Grua, Alys Marie, He.	*Augusta*	Colvin Hall
Hagan, Frank Wilbur, An.	*Bath*	202 Oak Hall
Haggett, Edward Grant, Jr., Ee.	*Portland*	146 No. Brunswick Street, Old Town

Hall, Harold Mathews, Es.	*Auburn*	B Θ Π House
Hallgren, Swen Eugene, Ht.	*Portland*	308 H. H. Hall
Hamilton, Allan Clarke, Ch.Eng.	*Portland*	25 Grove Street
Hanaburgh, Miriam Turner, Zo.	*Buchanan, N. Y.*	Balentine Hall
Hand, Carl Gordon, Ce.	*Haverhill, Mass.*	A T Ω House
Harding, Phyllis Marguerite, He.	*Brewer*	140 Church Street, Brewer
Harmon, William Everleth, Ee.	*Bridgton*	56 High Street, Old Town
Harrison, Margaret Winona, He.	*Portland*	Colvin Hall
Havey, Philip Andrew, Ce.	*West Sullivan*	Φ H K House
Hendrickson, Karl Thornton, Ce.	*Westbrook*	Φ H K House
Hendrickson, Warren Maynard, Ph.	*Waterville*	A Γ P House
Henry, Blanche Isabelle, Hy.	*Thomaston*	Balentine Hall
Hermann, Florence Whitney, Eh.	*Cumberland Mills*	Balentine Hall
Higgins, Leslie Alonzo, Ed.	*Bar Harbor*	B Θ Π House
Higgins, Richard Fernald, Me.	*Lewiston*	Λ X A House
Hill, Louise Marcia, He.	*Orono*	162 College Road
Hilliker, Elizabeth Stewart, Es.	*Corinna*	Balentine Hall
Hilton, Helen Alma, Es.	*Bangor*	385 Union Street, Bangor
Hoffman, Abraham, Zo.	*Dorchester, Mass.*	16 Pine Street
Holmes, Muriel Ethelyn, He.	*Augusta*	34 Forest Avenue
Hooper, Cleveland Holbrook, Me.	*Brewer*	Φ Γ Δ House
Howard, Leota Erma, Ed.	*Waterville*	66 Park Street
Howe, Inez Lubel, Eh.	*Bryant Pond*	Balentine Hall
Hoyt, Winston Sedgeley, Ee.	*Phillips*	H N Π House
Humphrey, Margaret Gertrude, He.	*Pittsfield*	Colvin Hall
Hurd, Carl Dean, Me.	*Augusta*	B Θ Π House
Hurd, Marguerite Littlefield, Eh.	*Orono*	66 Park Street
Hussey, Freeman Lincoln Otis, Ch.	*Old Town*	290 South Main Street, Old Town
Hutchinson, Doris Alberta, Eh.	*Dexter*	Balentine Hall
Ingalls, Charles Carroll, Ce.	*Bar Harbor*	Λ X A House
Ingraham, Robert James, Ch.Eng.	*Portland*	26 North Fourth Street, Old Town
Irwin, Ruth Elinor, He.	*Newtonville, Mass.*	34 Forest Avenue
Ives, Robert Southwick, Ch.	*Topsfield, Mass.*	Φ K Σ House

Jackson, Raymond Andrew, Ce.	*Portland*	Φ M Δ House
Jagels, Carl Alvin, Es.	*Camden*	Σ A E House
Johnson, Harold Ingalls, Me.	*Milo*	Λ X A House
Johnson, Kenneth Boyden, An.	*Perry*	A Γ P House
Johnson, Richard Lyman, Ee.	*West Hartford, Conn.*	Σ X House
Johnson, Rudolph Bernard, En.	*Sanford*	Λ X A House
Jose, Bryce Hight, Es.	*Newtonville, Mass.*	34 Forest Avenue
Kane, Warren Stevens, Jr., Ee.	*Eastport*	Φ K Σ House
Keene, Burt Moran, Es.	*Bangor*	118 Royal Road, Bangor
Keirstead, Lloyd Garrison, Ch.Eng.	*Oakland*	K Σ House
Kelley, Larson Nathaniel, Ch.A.	*Jonesport*	25 Grove Street
Kelloch, Roger Arnold, Sp.	*Thomaston*	134 College Road
Kennedy, Jeanne Reddington, Py.	*Boston, Mass.*	Balentine Hall
Knowlton, Thomas Anson, Es.	*Bangor*	15 Park Street
Ladner, Marion Alyce, He.	*Orono*	Park Street
Lampropoulos, Charles Louis, Hy.	*Ipswich, Mass.*	Θ X House
Landon, Bertha Rose, Es.	*Bangor*	Colvin Hall
Larrabee, Charles Frederic, Zo.	*Washburn*	Σ A E House
Lavigne, Edward Charles, Ed.	*Plattsburg, N. Y.*	4 Myrtle Street
Lawler, Frank Delbert, Ed.	*Eastport*	36 College Road
Leighton, Dwight Hannaford, Ce.	*Cape Elizabeth*	Σ N House
Leland, Alanson Tyler, Zo.	*Gardner, Mass.*	Λ X A House
Leland, Hollis Littlefield, Ch.Eng.	*Bangor*	91 Palm Street, Bangor
Leveroni, Herbert Charles, Es.	*Chelsea, Mass.*	Φ K House
Lewis, Herbert Webster, Me.	*Wollaston, Mass.*	B Θ Π House
Linskey, William Henry, Es.	*South Portland*	Σ X House
Livingstone, Elizabeth, Bt.	*Winchester, Mass.*	34 Forest Avenue
Lombard, Maynard Erwin, Fy.	*Caribou*	Φ H K House
Long, Florentina, Ed.	*Fort Kent*	Balentine Hall
Lorimer, Robert Vinton, Zo.	*Bangor*	21 Newton Street, Bangor
Lovely, Margaret Jane, He.	*Presque Isle*	Campus
Lucas, Ludger Antile, Ch.Eng.	*Hallowell*	55 Bennoch Street
Lull, Eloise Cleveland, Sp.	*Augusta*	Balentine Hall
Lutts, Herbert Warren, Ee.	*Kittery*	Σ X House
McBrady, William Henry, Fy.	*Portland*	Φ K House
McClure, James Wiley, Es.	*Bangor*	B Θ Π House

McGuire, Harvey Charles, Ed.	*Cutler*	25 Grove Street
McGuire, Thomas George, Me.	*Stonington*	Δ T Δ House
McKiniry, Donald Lewis, Fy.	*Portland*	25 Grove Street
McLean, James Albert, Me.	*Millinocket*	20 Somerset Street, Old Town
McLean, Roderick Kenneth, Me.	*Bar Harbor*	Σ A E House
McMichael, Albert Edward, Fy.	*Pittsfield*	Φ H K House
McMichael, Alfred Newman, Fy.	*Pittsfield*	Φ H K House
McNair, Hester Margaret, He.	*Sangerville*	Balentine Hall
Mann, Bernard Jerome, Fr.	*Bangor*	43 Parkview Avenue, Bangor
Marcho, Henry Edmund, Ag.	*Orono*	25 Myrtle Street
Mayo, Robert Kenneth, Eh.	*Southwest Harbor*	B K House
Means, Melbourne Franklin, Es.	*Biddeford*	Λ X A House
Merrifield, Arthur Louis, Ch.Eng.	*Stoneham, Mass.*	H N Π House
Merrill, Ernestine Louise, Pb.	*Orono*	82 Main Street
Millar, Richard Hardy, Fy.	*Springfield, Mass.*	Σ N House
Miller, Harold Delwin, Zo.	*Bangor*	25 Grove Street
Miller, Lauris Craig, Zo.	*Orono*	66 College Road
Mills, Evelyn June, He.	*Brewer*	North Hall
Mitchell, Lona Alice, He.	*Milo*	North Hall
Moody, Charles True, Es.	*Portland*	Σ A E House
Moors, Forest Kenneth, Ch.	*Old Town*	200 Stillwater Avenue, Old Town
Moors, Vivian Imogene, Lt.	*Orono*	36 College Road
Morrison, Richard Plaisted, Es.	*Bangor*	Φ Γ Δ House
Morrison, Violet Lillian, Hy.	*Orono*	44 Peters Street
Moulton, Elwin, Me.	*Hiram*	Φ H K House
Moulton, Marjorie, He.	*Hiram*	North Hall
Murphy, Dorothy Mae, He.	*Bangor*	Colvin Hall
Mutty, Marie Josephine, Zo.	*Old Town*	60 Fourth Street, Old Town
Neal, Franklin Martin, Ee.	*North Berwick*	B K House
Newell, Raymond Franklin, Ch.Eng.	*Bangor*	59 Kenduskeag Avenue, Bangor
Nivison, Helen Thom, Zo.	*Waterville*	Colvin Hall
Noyes, Carlton Franklin, Ee.	*Waterville*	36 College Road
Nunn, Kenneth Pressley, Ch.	*Machias*	Σ A E House

Odiorne, Philip Wendell, Es.	*Coopers Mills*	Σ A E House
Offinger, Martin William, Ms.	*Pelham, N. Y.*	Stillwater
Osgood, Helen Berneice. Pb.	*Orono*	134 College Road
Page, Charles Everett, Jr., Ed.	*Rockwood*	Σ N House
Page, Edwin Sherman, Me.	*Derby*	H N Π House
Palmer, Donald Rich, Es.	*Dexter*	B Θ Π House
Paquin, Leon John, Ch.	*Waterville*	7 Pleasant Street
Pasquale, Frank Lido, Zo.	*Jamaica Plain, Mass.*	Φ K House
Peabody, Helen Evangeline, Eh.	*Levant*	Balentine Hall
Peacock, Arnold Lane, Ee.	*Randolph*	Λ X A House
Pendleton, Robert Erskine, Fy.	*Lewiston*	Φ M Δ House
Penley, Eugene Francis, Ch.	*West Paris*	Σ Φ Σ House
Penley, Joseph Irving, Fy.	*West Paris*	Φ M Δ House
Percival, Ernest LaRoy, Fy.	*Dexter*	Φ H K House
Perkins, Philip Charles, Ed.	*Castine*	25 Grove Street
Peterson, George Melville, Ce.	*Yarmouth*	87 North Main Street
Pickering, Carl Wyvern, Es.	*Deer Isle*	Σ A E House
Pierce, John Alvin, Ps.	*Orono*	100 Main Street
Pierce, William Bela, Ce.	*Harpswell Center*	23 Spencer Avenue
Pike, Julius, Ch.Eng.	*Chelsea, Mass.*	T E Φ House
Pineo, Malcolm Bissell, Ch.Eng.	*Milo*	Φ K Σ House
Plummer, Philip Chase, Fm.	*South Paris*	Φ M Δ House
Pollard, Evelyn Arla, Hy.	*Plymouth, N. H.*	Balentine Hall
Pond, William Bartlett, Me.	*Bangor*	Φ Γ Δ House
Porter, Addie Elizabeth, Ed.	*Presque Isle*	Colvin Hall
Prescott, Theodore William, Es.	*Island Falls*	Σ N House
Quarrington, Grace Adams, Lt.	*Portland*	Balentine Hall
Quimby, Maynard Ward, Bt.	*Corinna*	66 College Road
Rackliffe, Emily Chadbourne, Ed.	*Belfast*	174 Union Street, Bangor
Randall, Coleman Cedric, An.	*West Appleton*	Farm Boarding House
Randall, Mavilla Annie, Eh.	*Bangor*	Balentine Hall
Raye, Henry Wadsworth, Ch.Eng.	*Eastport*	H N Π House
Resnick, Theodore Harold, Zo.	*Chelsea, Mass.*	12 Pleasant Street
Richardson, Gilbert Chamberlin, Fm.	*Island Falls*	A Γ P House
Robertshaw, Gilbert Turner, Ch.Eng.	*Union Village, R. I.*	A T Ω House
Romansky, Monroe, Zo.	*Hartford, Conn.*	312 H. H. Hall

Romero, Frederick Blanchard, Zo.	*Bangor*	32 North Street, Bangor
Roy, May Bernadette, Ed.	*Fort Kent*	91 Bennoch Road
Rubin, Max, Ch.	*Bangor*	55 Elm Street, Bangor
Sanborn, Fred McLellan, Ce.	*West Buxton*	B K House
Savage, Allen Estabrooks, Ce.	*Wells*	A T Ω House
Sawyer, Barbara, Pb.	*Greene*	Colvin Hall
Sawyer, Ralph Herbert, Ee.	*Old Town*	Θ X House
Scamman, Chester Herbert, Ch.	*West Scarboro*	Φ M Δ House
Scott, Mary Ellen, Lt.	*Ellsworth*	Balentine Hall
Scully, Hazel Mae, Ed.	*Mechanic Falls*	120 Main Street
Segal, Lillian Hillson, Gm.	*Bangor*	136 Maple Street, Bangor
Senuta, Joseph Francis, Ch.Eng.	*Fitchburg, Mass.*	K Σ House
Shaw, Leroy Frank, Jr., Ee.	*Milo*	Λ X A House
Shaw, Linwood Zina, Ch.	*Old Town*	457 So. Main Street, Old Town
Shaw, Mason Dustan, Ed.	*East Holden*	25 Grove Street
Shaw, Russell Wilson, Es.	*Portland*	Φ K Σ House
Siegel, Pauline, Fr.	*Bangor*	22 Hazel Street, Bangor
Small, Kathryn Marguerite, Pb.	*Cumberland Mills*	50 Forest Avenue
Smart, Doris Annie, He.	*Cambridge*	North Hall
Smith, Ethel May, Eh.	*Brewer*	24 Getchell Street, Brewer
Smith, Martha Louise, He.	*Saco*	North Hall
Smythe, Berla Margaret, Py.	*Bangor*	31A Mill Street
Snare, Richard James, Ch.	*Hampden Highlands*	Φ H K House
Snider, Rose, Eh.	*Portland*	Balentine Hall
Snow, Paul Elmer, Sp.	*Corinna*	75 Mill Street
Soloman, George Colby, Es.	*Dorchester, Mass.*	Σ N House
Sorensen, Leif Irving, Es.	*Rumford*	B Θ Π House
Stanley, Sherwin Leavitt, Ed.	*Clinton*	382 College Road
Stephenson, Rachel Eloise, Ed.	*Belfast*	9 Forest Avenue
Stevens, Laurice Myron, Ms.	*Plymouth*	20 Grove Street
Stinchfield, William John, Ee.	*Phillips*	K Σ House
Stoddard, Joseph Rodney, Me.	*Lincolnville*	66 College Road
Stone, Paul, Ch.	*Bangor*	239 Pine Street, Bangor
Street, Malcolm Milledge, Fm.	*Bangor*	K Σ House
Stubbert, Robert Walton, Ht.	*Waterville*	411 H. H. Hall
Swett, Girdler Jackson, Jr., Ce.	*Swampscott, Mass.*	55 Bennoch Street
Sylvester, Donald Maurice, Ch.	*Jefferson*	Σ X House

Sylvester, Margaret Edna, Ed.	*Etna*	Colvin Hall
Talbot, Peter Austin, Ch.A.	*Woodland*	Φ K House
Thomas, Arthur James, Zo.	*Brewer*	142 North Main Street, Brewer
Thompson, Emily Dennison, Zo.	*Bangor*	Δ Δ Δ House
Thompson, William Walstrum, Ce.	*Portland*	Θ X House
Thurston, Carl Lyman, Me.	*North Haven*	Σ A E House
Titcomb, Beatrice Evelyn, Ed.	*Dexter*	8 Crosby Street
Tracy, Alicia Maude, He.	*Lincoln*	R.F.D. #7, Bangor
Trundy, Alice Nettie, Ed.	*Searsport*	2 Peters Street
Tryon, Elizabeth, He.	*South Portland*	North Hall
Turbyne, John, Ch.Eng.	*Waterville*	Φ Γ Δ House
Umphrey, Lucia Mae, He.	*Washburn*	148 College Road
Varney, Kenneth Everson, Bt.	*Orono*	43 Peters Street
Verrill, Clayton Lee, Ed.	*West Scarboro*	A T Ω House
Viola, Thomas Anthony, Jr., Ed.	*Orono*	Main Street
Wakefield, Charles Edwin, Hy.	*Cherryfield*	66 Park Street
Walker, Clifton Nathaniel, Ht.	*Wiscasset*	A Γ P House
Ward, Margaret Edyth, He.	*South Windham*	Balentine Hall
Ward, Prescott Reed, Pb.	*South Portland*	Δ T Δ House
Wasgatt, Wesley Nickerson, Zo.	*Rockland*	Φ K Σ House
Waterhouse, Frank Chester, Hy.	*Old Town*	7 Bradbury Street, Old Town
Webb, Freeman George, Fm.	*Houlton*	Θ X House
Webb, Ruel Weston, Ce.	*Groveton, N. H.*	Φ Γ Δ House
Webber, Phyllis Leoma, Es.	*Bangor*	Δ Δ Δ House
West, Eleanor DeAlbra, Es.	*Bangor*	146 Elm Street, Bangor
Whelden, Charles Marsh, Fy.	*Wellesley, Mass.*	Σ X House
Whicher, Theron Otis, Ph.	*Springvale*	A Γ P House
Whiting, Olive Louise, He.	*Hebron Station*	Campus
Whitman, Muriel, Eh.	*Stonington*	Balentine Hall
Whitmore, Tyler Allen, Fm.	*Southwest Harbor*	Λ X A House
Wiers, Frederick Eugene, Fy.	*Newport*	A Γ P House
Wight, John Calvin, Ae.	*Millis, Mass.*	Λ X A House
Williams, Florence Eloise, Lt.	*Topsham*	Balentine Hall
Williamson, Enoch Harry, Es.	*Stratton*	Σ N House
Willson, Bernice Ruth, Ed.	*Brooklyn, N. Y.*	Colvin Hall
Wilson, Donald Henry, Me.	*Moosehead*	Σ A E House
Wilson, Edward Haven, En.	*Cape Elizabeth*	B K House

Wilson, John Forbes, Me.	*Lowell, Mass.*	208 H. H. Hall
Wiseman, Edith Estelle, Eh.	*Newport*	Colvin Hall
Wood, Ashley Burr, Jr., Ch.Eng.	*Bangor*	30 Catell Street, Bangor
Woodbury, Walter Henry, Ch.Eng.	*Oakland*	75 Mill Street
Worcester, Lillian Ethne, Ms.	*Belfast*	Balentine Hall
Yates, Lester Raymond, Ee.	*Bangor*	124 Webster Avenue, Bangor
Young, Elizabeth Janet, Es.	*Bangor*	44 Boutelle Road, Bangor
Young, Paul Alvin, Me.	*South Brewer*	Φ Γ Δ House

JUNIORS

Abbott, David Kelsey, Ag.	*Brooks*	A Γ P House
Aceto, Thomas, Ce.	*Portland*	Φ K House
Adams, Rachel Louise, He.	*Ellsworth*	Balentine Hall
Adams, Robert Gray, Ch.Eng.	*Portland*	Λ X A House
Adkins, Lawrence Richmond, Ch.Eng.	*Auburn*	B K House
Alden, Richard Carter, Ch.Eng.	*Portland*	149 Main Street
Aldrich, Kenneth Elmer, Dt.	*Norway*	401 H. H. Hall
Allan, Albert Sawyer. Ch.A.	*Machias*	H N Π House
Allen, Fern Elizabeth, Ms.	*Bangor*	R.F.D. #7, Bangor
Alpert, Isadore Louis, Ch.Eng.	*Bangor*	137 State Street, Bangor
Attridge, James Milton, Fy.	*East Pepperell, Mass.*	K Σ House
Augenstein, Roy Bernard, Ms.	*Newark, N. J.*	Σ X House
Austin, Thaddeus William, Me.	*Brooks*	Θ X House
Baker, Claude Kneeland, Me.	*Millinocket*	Φ K Σ House
Ballard, Delmont Lewis, Ms.	*Rockport*	Δ T Δ House
Barker, Kenneth Richardson, Ch.	*East Vassalboro*	Φ M Δ House
Bartlett, Aldo Andrew, Ce.	*Stonington*	Φ K House
Bartlewski, Peter Paul, Gm.	*New Britain, Conn.*	66 Pine Street
Baumann, Carl Spratt, Me.	*Bangor*	100 Sanford Street, Bangor
Bearce, Wesley Sayles, Eh.	*Foxboro, Mass.*	25 Grove Streee
Beazley, Edward Hutchins, Ch.	*Bucksport*	Stillwater
Beazley, William Ernest, Ch.Eng.	*Bucksport*	Stillwater
Beers, Ralph Emerson, Me.	*Boston, Mass.*	Σ N House
Bendtsen, Frederick Adolf, Ce.	*Lewiston*	Σ N House
Berg, Robert, Gm.	*Chelsea, Mass.*	T E Φ House
Berman, James, Ce.	*Nantasket Beach, Mass.*	12 Pleasant Street

Berry, Leslie Murch, Ee.	*South Portland*	A T Ω House
Birchall, Natalie Marie, He.	*Port Washington, N. Y.*	Balentine Hall
Bisbee, Eva Myrtle, Es.	*Portland*	9 Forest Avenue
Black, Frederick Ross, Me.	*Searsport*	B Θ Π House
Blanch, Ella Louise, He.	*Lubec*	34 Forest Avenue
Blanchard, Stanley Hayes, An.	*Cumberland Center*	A Γ P House
Blethen, Elizabeth Gertrude, Hy.	*Dexter*	Colvin Hall
Boyd, Harry Colby, Ch.Eng.	*Bangor*	Σ N House
Bradford, Robert Bruce, Me.	*Carmel*	66 Park Street
Brill, Miriam, He.	*Bangor*	88 Palm Street, Bangor
Britton, Donald Sherwin, Ee.	*Keene, N. H.*	Σ A E House
Brown, Darrell Enthia, Eh.	*Old Orchard*	Colvin Hall
Brown, Earl Dresser, Zo.	*South Paris*	Σ X House
Buker, George Haskell, Ch.	*Auburn*	Φ M Δ House
Bullock, Fred Stanley, Ms.	*Hallowell*	Σ N House
Bunker, Clara Elizabeth, Ed.	*Bangor*	117 Pine Street, Bangor
Bunker, Madelene Weeks, Es.	*Calais*	Balentine Hall
Burnham, Eleanor Frances, He.	*Bridgton*	Colvin Hall
Burr, Lloyd Weatherbee, Ee.	*Mattawamkeag*	Stillwater
Burrill, Josephine Dorr, Eh.	*Brewer*	32 School Street, Brewer
Bussell, Mary Luella, He.	*Old Town*	11 Oak Street, Old Town
Canders, William Ernest, Jr., Ee.	*Rumford*	Φ K Σ House
Carter, Hester Louise, Ms.	*Mt. Desert Ferry*	Balentine Hall
Chatto, Lawrence Alfred, Fm.	*South Brooksville*	A Γ P House
Chetley, Lloyd Warren, Ce.	*Richmond*	Σ A E House
Christensen, Robert William, Ht.	*Westbrook*	Φ K Σ House
Clapp, Cecil Earl, Fy.	*West Brooklin*	Φ Π K House
Cleaves, Kenneth Sharrock, Ce.	*Bar Harbor*	Φ M Δ House
Coffin, John Rodney, Ed.	*Ashland*	Θ X House
Collamore, Edson Leavitt, Zo.	*Great Works*	Great Works
Conklin, Henry Gilder, Me.	*New London, Conn.*	Φ Γ Δ House
Cook, Edward Hatfield, Zo.	*Calais*	30 Mill Street
Cooney, Wilfred Omara, Me.	*Brownville Junction*	Θ X House
Cope, Samuel Morton, Zo.	*Portland*	T E Φ House
Corbett, Donald Philip, An.	*East Parsonsfield*	111 H. H. Hall
Cormier, Fred Joseph, Jr., Ee.	*Newcastle*	Λ X A House
Covell, Muriel Tewksbury, Es.	*Monmouth*	Bennoch Street
Cox, Gilbert Merton, Me.	*New Sharon*	B K House
Coy, Methyl Bernice, He.	*Oxford*	Balentine Hall

Cram, Robert Leighton, Dh.	*Woodfords*	A Γ P House
Crockett, Robert Earle, Ee.	*Millinocket*	Φ K House
Crockett, Wilbury Arthur, Eh.	*Brewer*	90 Union Street, Brewer
Crosby, Norris Wilfred, Me.	*Bangor*	871 Hammond Street, Bangor
Crosson, John Wayne, Ch.	*Millinocket*	Φ K House
Crowell, Lorenzo Mayo, Me.	*Bangor*	79 Fourth Street, Bangor
Croxford, Paul Marks, Py.	*Bangor*	31 Crosby Street
Cummings, Beatrice, He.	*Lewiston*	Balentine Hall
Cuozzo, Roscoe Franklin, An.	*Bangor*	Broadway, Bangor
Cushing, Winifred Virginia, Zo.	*Freeport*	Balentine Hall
Cutter, Ivel Helen, Lt.	*Bangor*	237 Parkview Avenue, Bangor
Daggett, Edmond Arthur, Ee.	*North Anson*	Θ X House
Davis, Carleton Frederic, Me.	*Biddeford*	Λ X A House
Davis, Dorothy Fuller, He.	*Lexington, Mass.*	Balentine Hall
Davis, Harold Arthur, Hy.	*Calais*	30 Mill Street
Davis, William Holmes, Ch.Eng.	*York Village*	25 Grove Street
Dean, Francelia Pearl, He.	*Waterville*	Balentine Hall
Deane, Stuart Leslie, Ce.	*Milo*	Σ N House
DeCourcy, James Edward, Eh.	*Darien, Conn.*	406 H. H. Hall
Desjardins, Lionel Louis, Fr.	*Old Town*	122 So. Brunswick Street, Old Town
Dick, Kathryn Marion, He.	*Gardiner*	Colvin Hall
Doane, Stanley Russell, Ee.	*South Brewer*	37 Elm Street, South Brewer
Dodge, Frances Marguerite, He.	*Brewer*	132 Church Street, Brewer
Dougherty, Ralph Millar, Ee.	*Houlton*	312 Center Street, Old Town
Dow, Millard George, Ee.	*Stillwater*	Stillwater
Dow, Wayne Burchard, Ge.	*Skowhegan*	25 Grove Street
Dow, Wilmot Stevens, Ph.	*Presque Isle*	Φ H K House
Downs, Walter Alanson, Ed.	*Bangor*	47 Kossuth Street, Bangor
Dyer, Alice Carolyn, Es.	*Freeport*	Balentine Hall
Earl, Theodore Alexander, Me.	*Winter Harbor*	Λ X A House
Edes, Barbara, Ch.A.	*Dexter*	Balentine Hall

Favor, Donald Emerson, Fy.	*South Gray*	Φ K Σ House
Feero, Rebecca Hazel, Lt.	*Bath*	Balentine Hall
Fellows, Oscar, Hy.	*Bangor*	Φ Γ Δ House
Finks, Charles Edward, Ch.	*Portland*	18 Oak Street
Fletcher, Dorothy Hartwell, He.	*Portland*	Balentine Hall
Foss, Phyllis Cleveland, Hy.	*Bangor*	130 Main Street, Bangor
Foster, Kenneth Colley, Es.	*Augusta*	42 Forest Avenue
Franzew, Anna Josephine, Ms.	*Bangor*	224 State Street, Bangor
Frost, Orissa Erma, Sp.	*Dexter*	Balentine Hall
Gagnon, Lorenzo Arthur, Ee.	*Brunswick*	Δ T Δ House
Gary, Inez Martha, He.	*Caribou*	Balentine Hall
Gavin, Roy Joseph, Me.	*Springvale*	K Σ House
Gersoni, Henry Bernard, Ee.	*Chichester, N. Y.*	39 Pierce Street
Gifford, Melba Nord, He.	*South Portland*	Colvin Hall
Giguere, Armand Marc, Me.	*Rumford*	K Σ House
Gilman, John Taylor, Es.	*Newport*	B Θ Π House
Goodwin, Lloyd Edwin, Ch.Eng.	*East Corinth*	Stillwater
Goodwin, Malcolm Falconer, Fy.	*Parker Head*	Σ X House
Grady, Stephen Joseph, Py.	*Winthrop, Mass.*	85 Mill Street
Gray, Norman Heald, Fy.	*Lowell*	Φ K Σ House
Greaney, John Charles, Hy.	*Houlton*	86 Mill Street
Green, Donald Thomas, Dt.	*North Waterford*	Φ M Δ House
Grinnell, Eleanor Estes, Ms.	*Bath*	Balentine Hall
Grodinsky, Irving Leavitt, Ch.Eng.	*Bangor*	187 Ohio Street, Bangor
Hamor, Ruth Elizabeth, He.	*Hulls Cove*	Balentine Hall
Haney, Mildred Mae, Py.	*Bangor*	176 Ohio Street, Bangor
Harding, Maxine Ward, He.	*Brewer*	140 Church Street, Brewer
Hardison, Lewis Merrill, Fm.	*Caribou*	Δ T Δ House
Hardy, Kathleen Eda, Eh.	*Bangor*	560 Ohio Street, Bangor
Harvey, Irving Wilson, Ch.Eng.	*Saco*	Σ A E House
Hasey, Harry Everett, Me.	*Bangor*	15 Poplar Street, Bangor
Hastings, Waldon Houston, Ch.Eng.	*Bangor*	41 Linden Street, Bangor
Hefler, Roger Hartwell, Es.	*Hyde Park, Mass.*	202 H. H. Hall
Herrick, Samuel Eldridge, Me.	*Dexter*	B Θ Π House
Hersey, Thomas Merrill, Es.	*Bangor*	K Σ House
Higgins, Errol Verlane, Pb.	*Mapleton*	148 Main Street
Hildreth, Edward Merle, Py.	*Milford*	Milford
Hill, Richard Laurence, Me.	*Malden, Mass.*	Σ A E House
Hill, Robert Arthur, Me.	*Orono*	162 College Road

Hinton, Frederick Weeks, Ee.	*Millinocket*	43 Main Street
Holyoke, Charles Everett, Ce.	*Brewer*	269 Wilson Street, Brewer
Howard, William Woodbury, Eh.	*Hingham, Mass.*	Σ Φ Σ House
Hoyt, Arthur Elbert, Ce.	*Presque Isle*	Φ H K House
Hughes, Marion Esther, Sp.	*Bangor*	105 Third Street, Bangor
Humphreys, Enid Mary, Hy.	*Jackman Station*	Δ Δ Δ House
Hunt, Leonard Roberts, Ce.	*Portland*	Σ N House
Ingerson, Allegra Maxine, He.	*Vinalhaven*	Balentine Hall
Iverson, Andrew Percy, Me.	*Portland*	Λ X A House
Jackson, James Murphy, Ce.	*Bath*	Φ Γ Δ House
Jalbert, Evelyn Edna, Ms.	*Fort Kent*	Balentine Hall
Janney, Charles Theodore, Es.	*Orono*	15 Mill Street
Jewett, Mayland Lester, Ee.	*Augusta*	B K House
Johnson, Carl James, Fy.	*West Poland*	A T Ω House
Johnson, John Edward, Ee.	*Milford*	Milford
Johnson, Lewis Olof, Ce.	*Bangor*	131 Birch Street, Bangor
Jones, Kenneth Edgar, Fy.	*Bangor*	10 Clinton Court, Bangor
Jones, Mary Vaughan, Hy.	*Bangor*	Balentine Hall
Jones, Ronald Beckler, Fm.	*Sabattus*	Stillwater
Jordan, Colgate Stanley, Me.	*Seal Harbor*	A T Ω House
Jordan, Edward Clarence, Ce.	*Portland*	Σ N House
Judd, Morris Henry, Dt.	*South Paris*	Φ M Δ House
Judkins, Wesley Parkhurst, Ht.	*Waterville*	A Γ P House
Karalekas, Peter Charles, Ce.	*Dorchester, Mass.*	K Σ House
Kendall, Russell Irvin, Me.	*Waterville*	Φ Γ Δ House
Keresey, Thomas Edward, Zo.	*Gardner, Mass.*	Θ X House
Keyser, Ambrose Mathias, Me.	*Pewaukee, Wis.*	Δ T Δ House
Kimball, Elizabeth Gardner, He.	*Old Town*	2 Gilman Falls Avenue, Old Town
Klaman, Louis, Ch.A.	*Boston, Mass.*	T E Φ House
Knight, Howard Franklin, Fm.	*Richmond*	Φ M Δ House
Ladd, Everett Clifford, Es.	*Rockland*	B Θ Π House
Langlois, Paul Raymond, Eh.	*Springfield, Mass.*	102 H. H. Hall
Larrabee, Allan Merton, Es.	*Dover-Foxcroft*	54 Main Street
Lawrence, Robert Edward, Ee.	*Augusta*	B K House
Leadbetter, Robert Arthur, Fy.	*Bangor*	87 Boutelle Road, Bangor

Levensalor, Kenneth Lynwood, Es.	*Dover-Foxcroft*	Λ X A House
Libby, Russell Fullum, Ch.Eng.	*Westbrook*	Stillwater
Linn, Philip Holman, Me.	*Bangor*	K Σ House
Longfellow, Bruce Spruance, Ee.	*Machias*	Λ T Ω House
Lord, Francis Jordan, Ch.	*Old Town*	238 Main Street, Old Town
Lord, Ruth Esther, Eh.	*East Lebanon*	9 Forest Ave.
Lull, Richard Glenn, Ch.	*Augusta*	87 Park Street
Lynch, Elizabeth Esther, Es.	*Lawrence, Mass.*	Δ Δ Δ House
Lynch, Lawrence Craft, Es.	*Bangor*	Θ X House
Lyon, Alpheus Crosby, Jr., Ce.	*Bangor*	K Σ House
Lyon, Emily, Sp.	*Bangor*	735 Main St., Bangor
McCusker, Henry James, Es.	*East Braintree, Mass.*	Θ X House
McGurn, Mary Patricia, Ed.	*Bangor*	182 York St., Bangor
McLaughlin, Edward William, Ce.	*Pripet*	55 Bennoch Street
McNally, Dana Ralph, Ce.	*Ashland*	K Σ House
Maden, William Frederick, Ht.	*Burlington, Mass.*	Σ Φ Σ House
Marble, Mary Victoria, He.	*Portland*	Colvin Hall
Marson, Chester Joseph, Ee.	*Gardiner*	Σ A E House
Massaro, Joseph, Ch.Eng.	*South Manchester, Conn.*	87 Park Street
Mathews, Edna Louise, Eh.	*Belfast*	34 Forest Avenue
Mayberry, Effie Adelaide, He.	*Auburn*	Balentine Hall
Mead, Elizabeth Genevieve, Py.	*Bangor*	25 Myrtle Street
Mercier, Ardon Clark, Ch.Eng.	*Portland*	B Θ Π House
Merrill, Arlene Carr, Ed.	*Blue Hill*	Balentine Hall
Merrill, Lucius Robert, Ms.	*Orono*	178 Main Street
Miller, Ruth Marie, Ed.	*Newport*	15 Mill Street
Milliken, Louise Caryl, He.	*Corinna*	Colvin Hall
Moore, Ernestine Sophia, Eh.	*Freedom*	Colvin Hall
Moore, Richard Edwin, Ch.Eng.	*Rangeley*	Λ X A House
Morey, Francina, Ed.	*Hampden Highlands*	Hampden Highlands
Morin, James Rodolph, Zo.	*Old Town*	21 Carroll Street, Old Town
Morneault, Jeanne Irene, Fr.	*Bangor*	65 Curve Street, Bangor
Morrison, Frances Estella, Eh.	*Orono*	44 Peters Street
Morse, Nathan Stanley, Ms.	*Islesford*	86 Mill Street
Morse, Thomas Smyth, Ms.	*Islesford*	86 Mill Street
Moynihan, Dorothy Helen, Lt.	*Madison*	Balentine Hall
Murray, Vernon, Me.	*Brownville Junction*	K Σ House
Myers, Elizabeth Mary, He.	*Orono*	25 Myrtle Street

Nelder, Donald Oscar, Me.	*Houlton*	80 North Main Street
Newman, Doris Ober, Hy.	*Prospect Harbor*	Balentine Hall
Noyes, Rodney Everett, Ch.	*Dover-Foxcroft*	B K House
Nuite, Frank Elwin, Ph.	*Dexter*	A Γ P House
O'Donnell, Clifford Leo, Es.	*Bangor*	Θ X House
Oliver, Ferguson Mactier, Fy.	*Boston, Mass.*	Σ A E House
Osgood, George Everett, Ht.	*Peabody, Mass.*	Φ Γ Δ House
Osgood, George Markey, Fm.	*Easton*	Φ H K House
Owen, Clara Harriet, Ed.	*Portland*	Balentine Hall
Page, James Hampton, Ce.	*Fort Kent*	Φ Γ Δ House
Parsons, Kenneth Langmaid, Ee.	*Old Town*	75 So. Brunswick Street, Old Town
Parsons, Philip Stewart, Dh.	*South Paris*	410 Oak Hall
Pasanen, Otto Oswald, Ce.	*Fitchburg, Mass.*	Stillwater
Pascarelli, Romeo Francis, Sp.	*Dorchester, Mass.*	A T Ω House
Paul, John Norton, Fy.	*York Beach*	Λ X A House
Pearson, John Edward, Ch.Eng.	*Lynne, Conn.*	K Σ House
Perkins, Gerald Edward, Me.	*Portland*	B Θ Π House
Perkins, Harold Vincent, Ed.	*Orono*	80 North Main Street
Perlmutter, Howard, Es.	*Hartford, Conn.*	25 Grove Street
Perry, Ralph Louis, Ee.	*Brownville Junction*	Φ K House
Pisco, James John, Ce.	*Bangor*	225 Forest Avenue, Bangor
Plummer, Evelyn Marie, He.	*Head Tide*	Balentine Hall
Plumpton, George Gordon, Fm.	*South Eliot*	Φ M Δ House
Pollock, John Alexander, Ch.Eng.	*Fitchburg, Mass.*	87 Park Street
Pratt, Norman Gilman, Me.	*Kezar Falls*	Stillwater
Prinn, Charles Edward, Jr., Me.	*Portland*	Φ K House
Profita, Carmela Frances, Zo.	*Bangor*	4 Essex Street, Bangor
Pullen, Kenneth Elliott, Me.	*Milo*	Σ N House
Quinn, John Bréchemin, Fy.	*Wilmington, Del.*	A T Ω House
Ramsdell, Freeland Lewis, Ch.Eng.	*Augusta*	Δ T Δ House
Reed, Charles Howe, Bt.	*Lewiston*	4 Myrtle Street
Reid, Elliott Austin, Ch.Eng.	*Bangor*	Φ H K House
Rice, Richard Lindley, Es.	*Bangor*	17 Winter Street, Bangor
Rich, Wayne Schermerhorn, Bc.	*Charleston*	A Γ P House
Richardson, Doris Jeanette, Ed.	*Bangor*	Balentine Hall

Richardson, Gordon Twitchell, Ce.	*Beverly, Mass.*	101 Oak Hall
Ring, Donald Winston, Hy.	*Bath*	A T Ω House
Robbins, Paul Louis, Ch.Eng.	*Melrose, Mass.*	B Θ Π House
Roberts, Fred Carroll, Ee.	*Andover*	54 Main Street
Robinson, Mabel Elizabeth, He.	*Old Town*	183 Stillwater Avenue, Old Town
Roderick, Drusilla Martha, He.	*Augusta*	Colvin Hall
Rogers, Hayden Sewall, Ee.	*Bath*	Λ X A House
Romero, Dorothy Edith, Py.	*Bangor*	32 North Street, Bangor
Rosen, Abraham Everett, Zo.	*Bangor*	438 Hammond Street, Bangor
Rosen, Doris Eleanor, He.	*New Sweden*	Balentine Hall
Rossing, William, Fy.	*Atlantic, Mass.*	Σ A E House
Roylance, Herbert Mark, Ch.Eng.	*Hasbrouck Heights, N. J.*	Σ X House
Russ, Robert Crossland, Pb.	*Bangor*	B Θ Π House
Russell, Ruth Richard, Eh.	*Brownville*	Balentine Hall
Ryder, Georgia Belle, Hy.	*Brooks*	26 Mill Street
Sanders, Claire Sylvina, He.	*Sangerville*	Colvin Hall
Scheller, Arthur Peter, Me.	*Irvington, N. J.*	Σ X House
Searles, Stanwood Rowe, Es.	*Cumberland Center*	B Θ Π House
Seekins, Leslie Reed, Me.	*Richmond*	H N Π House
Shapero, Benjamin, Zo.	*Bangor*	30 Adams Street, Bangor
Shiro, Dorothy Thelma, Gm.	*Old Town*	30 So. Fourth Street, Old Town
Shubert, Merle, He.	*Ocean Grove, N. J.*	Colvin Hall
Sidelinger, Leonard Reid, Fy.	*Detroit*	25 Grove Street
Simpson, Lucille Powers, Eh.	*Bucksport*	Colvin Hall
Sinclair, Charles Arthur, Ms.	*Westbrook*	Λ X A House
Skillin, Franklin Johnson, Me.	*South Portland*	Φ K Σ House
Small, Laurence Towle, Fy.	*Madison*	Σ A E House
Small, Thaxter Weymouth, Jr., Ch.Eng.	*Madison*	Σ A E House
Smith, Albert Justin, Ch.Eng.	*Miamisburg, Ohio*	4 Myrtle Street
Smith, Irving Kitchen, Ed.	*Presque Isle*	College Road
Smith, John Eldrid, Zo.	*Calais*	Λ X A House
Smith, Ruth Eleanor, Eh.	*Bangor*	37 Fountain Street, Bangor
Somers, Dwight LeRoy, Me.	*Waterbury, Conn.*	Θ X House
Sproul, Mary Wilson, Eh.	*Livermore*	30 Forest Avenue
Stantial, Melbert Thomas, Ee.	*Houlton*	Θ X House

Stern, Abraham, Es.	*Bangor*	416 Hancock Street, Bangor
Stevens, Howard Winchester, Me.	*Portland*	Σ N House
Stinchfield, John Eastwood, Es.	*Orono*	Parkview Apartments
Stone, Rita Arnold, Es.	*Bangor*	Δ Δ Δ House
Stone, Winfred Lee, Me.	*Augusta*	54 Main Street
Straffin, Charles Garfield, Es.	*Brockton, Mass.*	Θ X House
Stratton, Boyd Bennett, Ag.	*Hancock*	B K House
Sullivan, Kenneth Prince, Me.	*Bangor*	184 Elm Street, Bangor
Sylvester, Robert Edgar, Me.	*Brewer*	190 Center Street, Brewer
Temple, Dorothea Louise, Es.	*Richmond*	Balentine Hall
Thayer, Alpha Powers, Py.	*South Paris*	Φ H K House
Thomas, Allan Moses, An.	*Caribou*	A Γ P House
Thomas, Robert Atwood, Dh.	*Dexter*	A Γ P House
Thompson, William Lawrence, Pl.	*Portland*	25 Grove Street
Thorner, Irving Nelson, Ch.Eng.	*Biddeford*	18 Oak Street
Titcomb, Carl Alden, Ph.	*Dexter*	8 Crosby Street
Tompkins, John Wiley, Me.	*Bangor*	Φ K House
Tompkins, Lawrence Ellwood, Dh.	*Sherman Mills*	A Γ P House
Tuell, Virginia Lois, Lt.	*Dennysville*	Balentine Hall
Tuomi, Martha Ilona, Eh.	*Monson*	9 Forest Avenue
Turner, Norman Webb, Ce.	*Isle au Haut*	Σ Φ Σ House
Twombly, Helen Irene, Hy.	*Monroe*	25 Myrtle Street
Varnam, Doris Elizabeth, He.	*Steep Falls*	193 Main Street
Varney, Lewis Bishop, Me.	*Gorham*	11 Main Street
Vaughan, Ruth Isabel, He.	*Belfast*	Colvin Hall
Vaughn, Remsen Stoddard, Ch.	*Pleasantville, N. Y.*	Θ X House
Venskus, John Paul, Ce.	*Mexico*	Φ M Δ House
Wadleigh, Jesse Remington, Ee.	*Old Town*	10 High Street, Old Town
Wadsworth, Clarence Kirby, By.	*Gardiner*	302 Oak Hall
Walenta, Ruth Sherlock, Ch.A.	*South China*	The Maples
Walker, Helen Frances, Ed.	*Riverside, R. I.*	Balentine Hall
Wall, Lillian Frances, Py.	*Bangor*	147 West Broadway, Bangor
Warren, George William, Ee.	*Dover-Foxcroft*	Σ X House
Watson, Andrew Elwell, Fm.	*Oakland*	Φ H K House
Weeks, Edward Warren, Ee.	*Springfield, Mass.*	Δ T Δ House

Weymouth, Donna Victoria, Fr.	*Abbot*	Balentine Hall
Wheaton, Arthur Herbert, Bc.	*North Kennebunkport*	A T Ω House
Wheeler, June MaKinney, Fr.	*Millinocket*	Δ Δ Δ House
White, William Joseph, Ch.Eng.	*Chillicothe, Ohio*	A T Ω House
Whitman, Carl Addison, Ce.	*East Auburn*	Σ N House
Whittemore, Priscilla Brooks, Zo.	*Auburn*	25 Myrtle Street
Wight, William Walton, Me.	*Bethel*	Σ Φ Σ House
Williams, Helen Anne, Ms.	*Guilford*	Δ Δ Δ House
Williams, Roger Carleton, Fy.	*Brighton*	A T Ω House
Wilson, John Cameron, Ch.Eng.	*Augusta*	Σ A E House
Winchenbaugh, Paul Hartley, Ce.	*Bedford, Mass.*	Φ M Δ House
Wood, Helen Gertrude, He.	*Bridgewater*	Balentine Hall
Works, Carroll Newton, Ee.	*Portland*	Φ M Δ House
York, Alma Amanda, Hy.	*Medway*	9 Forest Avenue
Young, Leslie Clough, Me.	*Onawa*	Φ H K House
Young, Shirley Cynthia, Eh.	*Orono*	56 Park Street
Young, Stanley Paul, Me.	*Orono*	56 Park Street
Young, Willis Harold, Me.	*Houlton*	80 North Main Street

SOPHOMORES

Aiken, Mary Claire, He.	*Brewer*	22 High Street, Brewer
Allen, Dorothy Louise, Py.	*Bangor*	208 Elm Street, Bangor
Alpert, Sylvia, He.	*Bangor*	137 State Street, Bangor
Ames, Robert Davidson, Me.	*West Hartford, Conn.*	A T Ω House
Anderson, Arline Ella, Eh.	*Cumberland Mills*	Colvin Hall
Anderson, Donald Leroy, Zo.	*Caribou*	Θ X House
Anderson, Henry Carlton, Fm.	*Cape Elizabeth*	Φ M Δ House
Anderson, Karl, Zo.	*Derby*	Φ K House
Arey, Robert Cushman, Ce.	*Hopedale, Mass.*	Σ N House
Atwood, Fred Smith, Jr., Ee.	*South Portland*	B K House
Avery, Margaret Elizabeth, Eh.	*Bangor*	77 Parkview Avenue, Bangor
Badger, Darrel Earl, Me.	*St. Albans*	Δ T Δ House
Bailey, Dean Manter, Bt.	*Waterville*	25 Grove Street
Barrows, Ruth Evelyn, He.	*Orono*	40 Myrtle Street

Barstow, Richard Parker, Ce.	*Auburn*	A T Ω House
Bates, Silas Loring, Me.	*Portland*	47 Mill Street
Bean, Paul Webster, Ce.	*Auburn*	A T Ω House
Benjamin, Spurgeon Kearney, Fm.	*Mars Hill*	Φ H K House
Bennett, Stanley Ames, Es.	*Bristol, R. I.*	Σ N House
Bessom, William Herbert, Me.	*Marblehead, Mass.*	Σ A E House
Beverage, Wentworth Ernest, Ch.Eng.	*Oakland*	25 Grove Street
Bickford, Kenneth James, Ee.	*Readfield Depot*	B K House
Bicknell, Charles Edmund, Me.	*Rockland*	B Θ Π House
Black, John Weeks, Es.	*Bath*	A T Ω House
Black, Kenneth Dinsmore, Fy.	*Woodfords*	Φ K Σ House
Black, Russell Stuart, Zo.	*West Sullivan*	A X A House
Blackington, Thelma Lee, Lt.	*Rockland*	Colvin Hall
Blaisdell, Frank Rodwell, Jr., Ce.	*Bangor*	283 Forest Avenue, Bangor
Blaisdell, William Bradley, Zo.	*North Sullivan*	Σ Φ Σ House
Blake, Helen Mabel, He.	*Lagrange*	36 College Road
Blanchard, Estelle Sheldon, He.	*Cumberland Center*	Colvin Hall
Blom, Bernhard, Fm.	*Brooklyn, N. Y.*	Σ Φ Σ House
Boone, Donald Henry, Fy.	*Portland*	Θ X House
Boothby, Adney Hamilton, Hy.	*Livermore Falls*	53 Bennoch Street
Bradbury, Orrin Samuel, Es.	*Rockland*	1 Middle Street
Brann, Henry Alden, Zo.	*Augusta*	B Θ Π House
Brewer, Lyman Fowler, Ee.	*Portland*	384 College Road
Briggs, Carl Aaron, Ch.Eng.	*Bangor*	K Σ House
Brountas, Charles George, Es.	*Bangor*	108 Third Street, Bangor
Brown, Frances Janet, Eh.	*Skowhegan*	Balentine Hall
Buckley, Richard Lane, Es.	*Bangor*	10 Cedar Street, Bangor
Bucknam, Richard Drinkwater, Ee.	*Yarmouth*	H N Π House
Bucknam, Robert Field, Fy.	*Dexter*	B Θ Π House
Budge, Pauline Smith, He.	*Mattawamkeag*	Balentine Hall
Campbell, Janet, Eh.	*Brewer*	Balentine Hall
Captain, Richard Harrison, Fy.	*Montclair, N. J.*	Δ T Δ House
Carlisle, George Davis, Fy.	*Bangor*	Φ Γ Δ House
Carr, Amos Jay, Ee.	*Cape Cottage*	33 Main Street
Carr, Malcolm Frederick, Me.	*Dexter*	A T Ω House
Carver, Philip Pennington, Fm.	*Washburn*	36 College Road
Chase, Jane Gerry, Sp.	*Bucksport*	Colvin Hall
Chipman, Selwyn Henry, Zo.	*No. Scituate, Mass.*	K Σ House
Church, Marjorie Esther, He.	*Corinna*	Bennoch Street

Churchill, Thomas William, Eh.	*North Parsonsfield*	55 North Main Street
Clark, Harland Bailey, Dh.	*Brooks*	Α Γ Ρ House
Clemons, Vivian Marie, Eh.	*Hiram*	Balentine Hall
Cobb, George Lane, Hy.	*Auburn*	Β Θ Π House
Coffin, Eugene, Ch.Eng.	*Harrington*	Δ Τ Δ House
Coffin, Hope Bearce, Eh.	*Portland*	Balentine Hall
Cohen, Monte, Es.	*Winthrop, Mass.*	Τ Ε Φ House
Cohen, Nathan Arthur, Es.	*Bangor*	50 East Summer Street, Bangor
Cole, William Bruce, Hy.	*Prospect Harbor*	Φ Κ Σ House
Collins, Earle Oliver, Ee.	*Anson*	3 Park Street
Colman, Arthur Sargent, Ce.	*Amesbury, Mass.*	Φ Κ Σ House
Colson, Velma Ina, Eh.	*Guilford*	Balentine Hall
Colson, Violet Dora, Fr.	*Guilford*	Balentine Hall
Connors, Joseph Nicholas, Jr., Es.	*Lewiston*	Α Τ Ω House
Cook, Enoch Standish, Ce.	*Bridgton*	Λ Χ Α House
Cook, Herbert Kenerson, Ch.Eng.	*Calais*	30 Mill Street
Cooper, Almon Bird, Jr., Fy.	*Rockland*	Β Κ House
Copeland, Margaret Standish, Zo.	*Arlington, Mass.*	Balentine Hall
Copeland, Ralph Lincoln, Jr., Ee.	*Brewer*	Δ Τ Δ House
Corey, George Thomas, Zo.	*Caribou*	Θ Χ House
Cram, Ernest Mayland, Ch.	*Winthrop*	Σ Φ Σ House
Crandall, Aldice Kermit, Es.	*Presque Isle*	Φ Η Κ House
Crandall, Horace Martin, Fm.	*Presque Isle*	Φ Η Κ House
Crane, Thomas Willard, Ee.	*South Portland*	Σ Χ House
Creamer, Everett Charles, Ee.	*Greene*	48 Pine Street
Crocker, James Douglas, Ch.Eng.	*Patten*	Σ Α Ε House
Crowell, Joan Lonsdale, Py.	*Bangor*	72 West Broadway, Bangor
Crowley, Agnes Katherine, Eh.	*Biddeford*	Balentine Hall
Crowley, Elizabeth Anne, He.	*Lewiston*	Balentine Hall
Curran, William Jeffery, Ed.	*Milo*	Φ Κ House
Curtin, Ernest Earl, Ce.	*South Portland*	Σ Χ House
Davis, Betty Lou, He.	*Monson*	Balentine Hall
Day, Harry Horace, Hy.	*Orono*	1 Bridge Street
Day, James Otto, Fy.	*Beverly Farms, Mass.*	104 Main Street
Desroches, Charles Victor, Ch.Eng.	*Providence, R. I.*	12 Park Street
DeWitt, John Hamilton, Ag.	*Sherman Mills*	Α Γ Ρ House

Diamon, David Lester, Zo.	*Portland*	134 College Road
Douglass, Howard Vernon, Fy.	*Upton*	Σ N House
Drummond, Horace Henry, An.	*Waterville*	25 Grove Street
Dunn, Alma Frances, Ag.	*Norway*	Balentine Hall
Durkee, John Alba, Fy.	*Waterbury, Vt.*	Φ K House
Dwinal, Charles Frank, Jr., Ch.	*Bangor*	218 Essex Street, Bangor
Elliott, Christine, He.	*Portland*	Balentine Hall
Ellsworth, Edward Charles, Ce.	*Bloomfield, Conn.*	Σ Φ Σ House
Emerson, Walter Lee, Es.	*Lewiston*	B Θ Π House
Estabrook, Richard Winthrop, Ch.Eng.	*Portland*	B Θ Π House
Etter, Howard Ernest, Ps.	*Orono*	188 Main Street
Fales, Henry Whitman, Me.	*Thomaston*	Φ K Σ House
Farwell, William Nathan, Dt.	*Unity*	25 Grove Street
Favor, Samuel Tucker, Me.	*Norway*	Φ K Σ House
Field, Horace Stanley, Fy.	*Dexter*	B Θ Π House
Fifield, Wilbert Hammond, Ce.	*Auburn*	Σ N House
Files, Harry Paul, Me.	*West Buxton*	Φ Γ Δ House
Finkelman, Myron, Ch.A.	*Portland*	7 Summer Street
Fitch, George Evans, Ms.	*East Sebago*	Λ X A House
Fitch, Helen Louise, He.	*East Sebago*	Balentine Hall
Flagg, Warren Williams, Me.	*Bangor*	52 Park Street
Freeman, Isabel Josephine, He.	*Brewer*	30 Holyoke Street, Brewer
Frost, Parker Horace, Me.	*Caribou*	Φ Γ Δ House
Frye, Dorothy Constance, Eh.	*Portland*	Balentine Hall
Fuller, Alfred Wallace, Ee.	*Pittsfield*	K Σ House
Gaffney, Richard Vaughan, Fy.	*Great Neck, Long Island, N. Y.*	46 College Road
Gailey, Raymond Henry, Eh.	*Portland*	25 Grove Street
Galbraith, Albert Henry, Me.	*Pleasant Plains, Staten Island, N. Y.*	B Θ Π House
Gay, Donald Merritt, Es.	*Casco*	Φ M Δ House
Getchell, John Simmons, Zo.	*Oakland*	Λ X A House
Gibbs, Roland Ernest, Eh.	*Bangor*	23 Spring Street, Bangor
Gilbert, Cecil Alden, An.	*Greene*	53 Bennoch Street
Goddard, Maurice Kimball, Fy.	*Portland*	Φ K Σ House
Good, Jack Charles, Hy.	*Portland*	Φ Γ Δ House
Goode, Paul Edmund, Es.	*Bangor*	228 Palm Street, Bangor
Gordon, Clara Alberta, Ed.	*Lincoln Center*	11 Hudson Street, Bangor

Gotlieb, Hyman, Ch.A.	*Bangor*	13 Carr Street, Bangor
Gould, William Oliver, Ch.	*Bangor*	263 French Street, Bangor
Gowen, Eleanor Genevieve, Sp.	*Biddeford*	Balentine Hall
Graham, Marion Fraser, Eh.	*Bangor*	32 Sixth Street, Bangor
Grange, Etta Mae, He.	*Smyrna Mills*	Colvin Hall
Gray, Allen Redlon, Fy.	*Wakefield, Mass.*	Θ X House
Gray, Ira Church, Jr., Ch.	*Mansfield, Mass.*	20 Peters Street
Gray, Mary Elizabeth, Fr.	*Van Buren*	162 College Road
Gray, Rhona Roberta, Ms.	*Bangor*	28 Dillingham Street, Bangor
Greene, Harold Luke, Ee.	*Buchanan, N. Y.*	55 Bennoch Street
Gregory, Selma Lavinia, He.	*Boothbay Harbor*	Balentine Hall
Gross, Edward Isadore, Es.	*Bangor*	381 Ohio Street, Bangor
Hagerthy, Albert Lindley, Ag.	*Ashland*	87 Boutelle Road, Bangor
Haggett, Charles Edwin, Jr., Fm.	*Newcastle*	Φ M Δ House
Hall, Chester Fullerton, Ce.	*Brewer*	101 Chamberlain Street, Brewer
Hall, Frederick Milton, Ch.	*Rockland*	B K House
Hall, Maurice Llewellyn, Zo.	*Rockland*	Θ X House
Hallenbeck, Marcus George, Zo.	*Westwood, Mass.*	K Σ House
Halpine, William Conway, Zo.	*Portland*	Δ T Δ House
Hamilton, James Sangster, Me.	*Portland*	K Σ House
Hamilton, John Newcomb, Ee.	*Belfast*	Σ N House
Hamilton, Neil Ardell, Es.	*Woodfords*	Φ K Σ House
Hancock, Sumner Orrin, 2nd, Hy.	*Casco*	Φ M Δ House
Hannigen, Howard William, Fy.	*Amesbury, Mass.*	Θ X House
Hanson, James Dennis, Ce.	*York Village*	Φ K House
Hanson, Otis Turner, Ee.	*Houlton*	College Road
Harding, Ruth Clifford, Zo.	*Stockton Springs*	162 College Road
Harmon, Norman Howard, Hy.	*Limerick*	Stillwater
Harris, Joanna Sharpe, He.	*Milo*	37 Pine Street
Hatch, Shirley Libby, Sp.	*Shirley, Mass.*	The Maples
Hathorn, Vincent Laforest, Me.	*Pittsfield*	107 Oak Hall
Hathorne, Raymond Corliss, Fy.	*Wiscasset*	Φ K Σ House
Hayes, Prudence Elaine, Mc.	*Orono*	29 Spencer Avenue
Heald, Alvin Lyman, Ce.	*Readfield*	Σ A E House
Heath, Gordon Richardson, Fy.	*Malden, Mass.*	Φ Γ Δ House
Helfand, Harry, Zo.	*Milford, Mass.*	T E Φ House
Henderson, Stanley David, Ee.	*Bath*	Φ Γ Δ House

Higgins, Henry Russell, Ce.	*Newport*	K Σ House
Higgins, Robert Gage, Ch.Eng.	*Lewiston*	Λ X A House
Hilton, Marion Agnes, He.	*Anson*	Colvin Hall
Hinckley, Robert Winfield, Jr., Ms.	*Bluehill*	A T Ω House
Hinkley, Philip Joseph, Ee.	*Westbrook*	K Σ House
Hodsdon, Clara Leslie, He.	*Stillwater*	Stillwater
Homer, Mary Christine, Py.	*Franklin*	184 Main Street
Honer, Carl Nicholas, Es.	*Hartford, Conn.*	A T Ω House
Hoyt, John Winston, Fm.	*Easton*	Φ H K House
Ingalls, Elston Paul, Eh.	*Buxton*	Σ A E House
Jackson, Laurence Burdette, Ce.	*Old Town*	43 High Street, Old Town
Jackson, Norman Mason, Zo.	*Rumford*	Θ X House
Jacques, Charles Wesley, Jr., Me.	*Bangor*	63 Congress Street, Bangor
Jarrett, Vincent Raymond, Zo.	*Stamford, Conn.*	Δ T Δ House
Jellison, George Edward, Eh.	*North Sullivan*	Φ M Δ House
Jenkins, Annie Elizabeth, Hy.	*Houlton*	Colvin Hall
Jensen, Florence Olive, Eh.	*Portland*	Colvin Hall
Johnson, Mildred Frances, Es.	*La Tuque, Quebec*	Balentine Hall
Johnson, Phyllis Wing, Eh.	*La Tuque, Quebec*	Balentine Hall
Kaminsky, Florence Ida, He.	*Bucksport*	46 Leighton Street, Bangor
Kaplan, Arnold, Es.	*Roxbury, Mass.*	T E Φ House
Kennard, Edith Carolyn, Eh.	*Bangor*	14 Savage Street, Bangor
Kilgore, Manley Winford, Zo.	*Patten*	A T Ω House
Kimball, Kenneth Jordan, Ch.Eng.	*Camden*	Δ T Δ House
King, Frederick Wilber, Ce.	*Augusta*	Φ H K House
Knight, Frances Silsby, He.	*Derby*	Colvin Hall
Knight, Paul Howard, Me.	*Limestone*	20 Peters Street
Knight, Paul Irving, Ch.Eng.	*South Eliot*	Φ M Δ House
Koonz, Lloyd Albert, Zo.	*Augusta*	B K House
Kyer, Donald Louvell, Zo.	*Brewer*	132 Union Street, Brewer
Lachance, Charlotte Marguerite, Fr.	*Biddeford*	Balentine Hall
Lakin, John Robert, Ee.	*New Harbor*	Φ M Δ House
Lamb, Philip Everett, Hy.	*Gardiner*	36 College Road
Lane, Robert Edwin, Me.	*South Portland*	Φ Γ Δ House

Larcom, Raymond Bennett, Dh.	*Farmington*	52 Park Street
Larrabee, Harold O'Roak, Ee.	*Dover-Foxcroft*	54 Main Street
Larrabee, Mercena Whittum, Es.	*Belfast*	Balentine Hall
Lawrence, Doris Evelyn, Ms.	*Arrowsic*	Balentine Hall
Lawrence, Roy Ibra, Ee.	*Arrowsic*	14 Middle Street
Leddy, John Davenport, Py.	*South Portland*	B Θ Π House
LeSieur, Louis Charles, Zo.	*Biddeford*	12 Park Street
Levy, Samuel, Es.	*Calais*	86 Mill Street
Lewis, Roberta Anne, Eh.	*Newport*	162 College Road
Libby, Paul Allen, Eh.	*Corinna*	College Road
Libby, Ruth Martha, He.	*Caribou*	Balentine Hall
Linscott, Miriam West, Mc.	*East Milton, Mass.*	Balentine Hall
Little, Edward Revere, Eh.	*Bar Harbor*	B Θ Π House
Littlefield, Edward, Fm.	*Springvale*	Δ T Δ House
Littlefield, Emery Stanley, Jr., Ce.	*Alfred*	Σ A E House
Long, Frederick Ludwig, Pb.	*Stillwater*	Stillwater
Look, Sidney Lincoln, Ce.	*Jonesboro*	90 Park Street
Lord, Harold Nathan, Jr., Es.	*Cumberland Mills*	Λ X A House
Lord, Robert Douglas, Fy.	*Ipswich, Mass.*	18 Oak Street
Lothrop, Carolyn Frances, Eh.	*Auburn, R. I.*	Colvin Hall
MacBride, Merle Milton, Fm.	*Easton*	Φ H K House
McCann, Donald Edward, Me.	*East Millinocket*	230 Silver Road, Bangor
McCollum, Frank Leslie, Ch.Eng.	*West Jonesport*	35 Grove Street
MacDonald, Colleen Eleanor, Ms.	*East Millinocket*	31A Mill Street
MacDonald, George Roderick, Ee.	*East Millinocket*	3 Park Street
McDonnell, Paul Joseph, Es.	*Fitchburg, Mass.*	Φ Γ Δ House
McEachern, Joseph Earl, Ce.	*Greenville Junction*	Σ A E House
McGinley, Cecil Randolph, Es.	*Lynn, Mass.*	Σ A E House
McGrath, Helen Kathleen, Ed.	*Bangor*	135 Grove Street, Bangor
MacLellan, Annie Estelle, Gm.	*Weeks Mills*	The Maples
Mallett, Howard Pickering, Ce.	*Lee*	Φ H K House
Mansfield, Clifford Shedd, Ce.	*Lynnfield, Mass.*	Φ M Δ House
Mansur, Richard Herman, Ch.Eng.	*Augusta*	Σ A E House
Marcille, James Woodrow, Ch.Eng.	*Biddeford*	Λ X A House
Marsh, Joel White, Fy.	*Scarsdale, N. Y.*	Φ K Σ House
Marshall, Stephen Samuel, Jr., Ce.	*Bath*	Σ N House
Martin, John Elmore, Zo.	*Pittsfield*	Φ H K House

Masterman, Harley Alden, Me.	*Jay*	Φ M Δ House
Matchett, Wendell Eugene, Ee.	*Orono*	86 Mill Street
Matheson, Wilfrid Gordon, Ee.	*Portland*	Φ M Δ House
Meltzer, Sara, He.	*Auburn*	Colvin Hall
Menton, Arne Sigvard, Ed.	*New Sweden*	100 Mill Street
Merrill, Dudley Sperry, Es.	*Bronxville, N. Y.*	Φ K Σ House
Michaud, Stanley Edward, Ch.A.	*East Millinocket*	Φ K House
Miniutti, Angelo Guy, Ee.	*North Berwick*	20 Grove Street
Mintz, Arthur Grover, Es.	*Dorchester, Mass.*	T E Φ House
Monroe, Roy Howard, Ch.	*Milo*	36 College Road
Morgan, Paul Winthrop, Ch.	*Thomaston*	25 Grove Street
Morong, Francis Goodwin, Ce.	*South Portland*	Σ A E House
Morrill, George William, Fy.	*Concord, N. H.*	29 Pond Street
Morrison, Louis Henry, Ee.	*Bangor*	Union Street, Bangor
Morrison, Vernon Chase, Ee.	*Bangor*	Union Street, Bangor
Mosher, Stuart Holt, Es.	*Orono*	6 Middle Street
Moyes, Mildred Elva, He.	*Lewiston*	Balentine Hall
Mullaney, Roderick Edward, Jr., Zo.	*Bangor*	72 Garland Street, Bangor
Murphy, Donald Joseph, Es.	*Bangor*	Θ X House
Myers, Frank William, Hy.	*Old Town*	24 Congress Street, Old Town
Norman, Ralph Linwood, Ce.	*South Berwick*	Σ N House
Norton, Aldiverde Isaac, Me.	*Dark Harbor*	Φ K Σ House
Norton, Wesley Spaulding, Dh.	*Strong*	A Γ P House
O'Connell, Edward William Carmel, Es.	*North Bridgton*	Commons
Otis, Arthur Brooks, Zo.	*Bridgton*	Λ X A House
Packard, Ira Joseph, Dh.	*Searsmont*	Farm Boarding House
Packard, Vernon Loring, Ce.	*Warren*	Δ T Δ House
Page, Woodrow Evans, Ce.	*East Corinth*	Δ T Δ House
Palmer, Woodrow Lenox, Fy.	*Berlin, N. H.*	Σ X House
Parrott, Louis Rocheleau, Fy.	*Plandome, N. Y.*	Φ K House
Parsons, Pearle Beatrice, Ms.	*East Millinocket*	Stillwater
Pease, Omar Chase, Fy.	*North New Portland*	K Σ House
Peavey, Phyllis Cathrine, He.	*Bangor*	128 Cumberland Street, Bangor
Pedersen, Donald Lincoln, Me.	*Portland*	Σ N House
Pendell, Philip Greenlaw, Eh.	*Caribou*	Σ N House
Perkins, Donald Oliver, Me.	*Oxford*	B K House

Perkins, Ralph Linwood, Jr., Me.	*Bangor*	R.F.D. #7, Bangor
Perkins, Wilma Ellen, Eh.	*Portland*	Balentine Hall
Pickering, Emily Pearl, Hy.	*Deer Isle*	Balentine Hall
Plummer, Curtis Blood, Ee.	*Alfred*	36 College Road
Poole, Donald Glidden, Es.	*Vinalhaven*	Σ X House
Porter, John Langley, Es.	*Randolph, Mass.*	Φ Γ Δ House
Potter, Alvah Louis, Zo.	*Woodland*	Σ N House
Pratt, Warren Thompson, Es.	*Cumberland Mills*	Λ X A House
Pratt, Willis Grover, Ce.	*Hinckley*	14 Mill Street
Pressey, Charles Darius, Ce.	*Bangor*	487 Union Street, Bangor
Pride, Frank Orland, Me.	*North Windham*	Σ N House
Prigmore, Ethel Elizabeth, He.	*Baldwinsville, Mass.*	Colvin Hall
Prince, Raymond Francis, Es.	*Bangor*	27 McKinley Street, Bangor
Pronovost, Wilbert Lucien, Ms.	*Watertown, Conn.*	15 Park Street
Rand, Paige Butler, Fy.	*Lisbon*	Θ X House
Randall, Elmer Woodbury, Jr., Ee.	*Westbrook*	16 Oak Street
Rawding, Norman Julian, Ce.	*Harmony*	Σ N House
Read, Stephen Lovell, Ag.	*Belfast*	12 Park Street
Reese, Samuel Hill, Fy.	*Wilmington, Del.*	A T Ω House
Rich, David, Zo.	*Bangor*	165 Essex Street, Bangor
Richard, Thomas Elie, Ee.	*Bangor*	170 Garland Street, Bangor
Richardson, Walter Allen, Jr., Me.	*Jewett City, Conn.*	Σ A E House
Ripley, Lucinda Elizabeth, Pl.	*South Paris*	Balentine Hall
Roche, Gwendolyn Gunn, Py.	*Portland*	Δ Δ Δ House
Rosie, Louise Mary, Eh.	*Bangor*	200 Union Street, Bangor
Ross, John Albert, Ch.Eng.	*Bangor*	3 Bryant Street, Bangor
Rowe, Ella May, Fr.	*Bar Harbor*	Δ Δ Δ House
Rubin, David Harred, Ch.	*Bangor*	312 French Street, Bangor
Ryan, Hugh Edward, Zo.	*Stamford, Conn.*	Φ K House
Ryan, Philip Aloysius, Ms.	*Bucksport*	Φ K House
Sabin, John Stuart, Fy.	*Putnam, Conn.*	Φ Γ Δ House
Sanborn, James Wilson, Ge.	*Gorham*	B Θ Π House
Sanborn, Maurice Lee, Fy.	*Belfast*	Φ M Δ House
Saunders, Harry Clayton, Ch.	*Brunswick*	Φ Γ Δ House
Sawyer, Ashton Parker, Ce.	*Portland*	Φ M Δ House
Sawyer, Dorothy Louise, Es.	*Jonesport*	Balentine Hall

Shea, Harry Francis, Me.	*East Machias*	Λ X A House
Sherry, Arthur Browning, Jr., Ch.Eng.	*Portland*	Φ K Σ House
Shields, James Lawson, Ce.	*Reading, Pa.*	Σ X House
Shurtleff, Ruth Elizabeth, He.	*Portland*	Balentine Hall
Sisco, Alice Elizabeth, Pb.	*Portland*	Balentine Hall
Small, John Foster, Dh.	*Orono*	27 Park Street
Smart, Wendall Temple, Es.	*Bangor*	B Θ Π House
Smith, Norman Kenneth, Zo.	*Ellsworth*	A T Ω House
Soule, Glendon Arthur, Ch.	*Freeport*	B K House
Spalding, Edward Lewis, Fy.	*Newburyport, Mass.*	K Σ House
Sparrow, Kenrick Anderson, Ce.	*South Orleans, Mass.*	H N Π House
Staples, Basil George, Bc.	*Kittery*	25 Grove Street
Staples, Lawrence Sylvester, Eh.	*Bangor*	160 Essex Street, Bangor
Stearns, Lewelen Mitchell, Es.	*Middletown, Conn.*	A T Ω House
Stetson, Edward, Ht.	*Portland*	Φ H K House
Stevens, Joseph Ayer, Ce.	*Lincoln*	Φ K Σ House
Stewart, Donald Merwyn, Eh.	*New Haven, Conn.*	Σ N House
Stilphen, Virginia Hall, Hy.	*Richmond*	Balentine Hall
Stoddard, Richard St. Clair, Es.	*Rockland*	B K House
Stone, Earl, Ch.A.	*Roxbury, Mass.*	T E Φ House
Stone, Flora Elizabeth, He.	*Fort Fairfield*	Balentine Hall
Stone, Ralph Donald, Ce.	*Gardiner*	Λ X A House
Strout, Margaret Deering, He.	*Bogota, N. J.*	Colvin Hall
Stubbs, Arthur Perry, Ch.Eng.	*Orono*	Park Street
Sylvester, Asher Elwood, Ch.Eng.	*Eustis*	Φ K Σ House
Tarbell, Gridley Weatherbee, Ms.	*Bangor*	B Θ Π House
Taylor, Oscar Moores, Me.	*Rumford*	Φ Γ Δ House
Tebbets, Lawrence Morton, Me.	*Auburn*	14 Middle Street
Thomas, Frank Stuart, Zo.	*Northeast Harbor*	Σ A E House
Thompson, Robert Andrew, Ch.Eng.	*West Enfield*	Σ X House
Thompson, Theodore Melvin, Fm.	*Freedom*	35 Grove Street
Thorne, Raymond Burgess, Me.	*St. Albans*	54 Main Street
Thorpe, William Austin, Jr., Ch.	*Millinocket*	Δ T Δ House
Todd, Ruth Josephine, He.	*Caribou*	Balentine Hall
Totman, Clayton Osborne, Fy.	*Greenfield, Mass.*	Σ N House
Treat, Charles Forrest, Eh.	*Orono*	46 Main Street
Trundy, Virginia Elizabeth, Eh.	*Searsport*	20 Forest Avenue
Turner, Max Elvin, Ht.	*Augusta*	A Γ P House
Turner, Robert Frank, Me.	*Veazie*	R.F.D. #7, Bangor

Vinal, Josef Sampson, Ch.Eng.	*Warren*	45 Oak Street
Wadleigh, Ralph Leith, Ee.	*Old Town*	127 Fourth Street, Old Town
Walker, Charles Alfrado, Fm.	*Canton*	Σ Φ Σ House
Walker, Jean Grant, Eh.	*Millinocket*	Colvin Hall
Walker, Warren Littlefield, Me.	*West Kennebunk*	Φ K Σ House
Wallace, Rachel Katherine, He.	*Orono*	68 Main Street
Walton, Russell Archer, Es.	*Wellesley, Mass.*	A T Ω House
Warner, Beryl Elisabeth, Ms.	*Bangor*	192-14th Street, Bangor
Wasgatt, Cynthia Helen, Zo.	*Rockland*	Balentine Hall
Wasung, Stanley Francis, Ce.	*Newark, N. J.*	Φ K House
Webber, Bernice Malo, Eh.	*Wiscasset*	Balentine Hall
Welch, Craig Jameson, Me.	*Madison*	Φ H K House
Wesolowska, Laura Margaret, Hy.	*Shirley, Mass.*	Balentine Hall
Whitaker, Preston Clarence, Dt.	*Bangor*	25 Grove Street
White, Walter Alfred, Me.	*Saco*	Φ K House
Whitin, George Weld, Ce.	*Weld*	Σ N House
Whitman, Hope Bradford, Eh.	*Turner*	Balentine Hall
Wilhelm, Louise Elizabeth, Eh.	*Whitneyville, Conn.*	Balentine Hall
Willard, Mildred Sarah, Ms.	*Orono*	100 Bennoch Street
Willey, John Coffin, Eh.	*Cherryfield*	15 Park Street
Wishart, Robert Frederick, Zo.	*Rumford*	Φ Γ Δ House
Wood, Elmore Laurence, Ge.	*Waterville*	54 Main Street
Wood, Frank Theodore, Zo.	*Shelburne Falls, Mass.*	12 Park Street
Wood, William Sylvester, Es.	*Old Orchard Beach*	Φ Γ Δ House
Wooster, Richard Poole, Eh.	*Old Town*	258 Center Street, Old Town
Young, Margaret Ross, He.	*Camden*	34 Forest Avenue

FRESHMEN

Abbott, Actor Thompson, Jr., Eng.	*Trevett*	211 Oak Hall
Abbott, George Harry, Jr., Arts	*Southbridge, Mass.*	211 Oak Hall
Abbott, Robert Forsythe, Ch.Eng.	*Old Town*	459 Stillwater Avenue, Old Town
Abramson, Abraham Albert, Arts	*Portland*	209 Oak Hall

Adams, John Frederick, Agr.	*Arlington, Mass.*	308 H. H. Hall
Adams, Louise Elizabeth, Arts	*Wiscasset*	The Maples
Adams, Richard Emerson, Arts	*Wellesley Hills, Mass.*	407 H. H. Hall
Adler, Robert Joseph, Ee.	*Lynbrook, N. Y.*	39 Pierce Street
Aldrich, Robert Edwin, Ce.	*Winchendon, Mass.*	207 Oak Hall
Allen, Marcia, Arts	*Bangor*	110 Center Street, Bangor
Allen, Rena Maria, He.	*Bangor*	Hammond Street, R.F.D. #7, Bangor
Alley, Alfred Kenneth, Ce.	*Lynn, Mass.*	121 North Main Street
Anderson, Fred Andrew, Arts	*Milo*	401 H. H. Hall
Archer, Marie Clover, Arts	*Milbridge*	Mt. Vernon House
Arno, John Raymond, Agr.	*Dexter*	309 Oak Hall
Asnip, Margaret Irene, Arts	*Saco*	The Maples
Atchison, Roland Berkley, Ee.	*Houlton*	74 North Main Street
Averill, Anna Louise, He.	*Fort Fairfield*	The Maples
Averill, Roswell Pierce, Eng.	*Old Town*	32 High Street, Old Town
Bacheller, Chester Daniel, Agr.	*Oakland*	205 Oak Hall
Backer, Edward Adolph, Arts	*Portland*	311 H. H. Hall
Barker, William Francis, Ee.	*Stamford, Conn.*	203 Oak Hall
Baron, Rena Leah, He.	*Rockaway Beach, N. Y.*	The Maples
Bartlett, John Orrin, Ee.	*Bangor*	51 Maple Street, Bangor
Beal, Frederick Martin, Ce.	*Darien, Conn.*	203 Oak Hall
Bearce, William Raymond, Arts	*Foxboro, Mass.*	111 H. H. Hall
Benn, Gordon Lynwood, Agr.	*Easton*	402 H. H. Hall
Berry, William Hapgood, Jr., Ce.	*East Brownfield*	212 Oak Hall
Beverage, Gerald Gibson, Ee.	*North Haven*	212 Oak Hall
Blackwell, Benjamin Richard, Me.	*Waterville*	210 Oak Hall
Blades, Charles Willoughby, Agr.	*Brooklyn, N. Y.*	309 H. H. Hall
Blake, Roland Alexander, Agr.	*Brownfield*	410 H. H. Hall
Blake, William Douglass, Fy.	*Greenfield, Mass.*	310 H. H. Hall
Blanchard, Nelson Sweetser, Agr.	*Cumberland Center*	43 Peters Street
Boardman, Harold Thomas, Fy.	*Skowhegan*	210 Oak Hall
Boardman, James Alden, Eng.	*Orono*	Campus
Boardman, Rosemary, He.	*Orono*	Campus

Bouchey, Carroll Edmond, Agr.	*East Limington*	Stillwater
Boynton, Evelyn Frances, He.	*Millinocket*	Mt. Vernon House
Breslaw, Milton Jay, Arts	*Greenwich, Conn.*	402 Oak Hall
Bridges, George Abbott, Ch.Eng.	*Lincolnville*	3 Park Street
Brooks, Mildred Virginia, Arts	*Waldoboro*	Mt. Vernon House
Brooks, Willard Nash, Eng.	*Addison*	210 H. H. Hall
Brown, Bettina, Arts	*Bangor*	Mt. Vernon House
Brown, David Springer, Arts	*Ellsworth*	204 Oak Hall
Brown, Donald Marshall, Ce.	*Marion, Conn.*	208 Oak Hall
Brown, Donald Warren, Fy.	*South Portland*	409 H. H. Hall
Brown, Eileen Elizabeth, Arts	*Brewer*	269 North Main Street, Brewer
Brown, Ernest Hayward, Arts	*Lewiston*	302 H. H. Hall
Brown, Paul Coolidge, Ch.Eng.	*Norway*	204 H. H. Hall
Brown, William Franklin, Fy.	*Dresden*	60 Hill Street
Bryer, Giles Samuel, Ee.	*Boothbay*	409 Oak Hall
Buck, Charles Albert, Arts	*Hartford, Conn.*	408 Oak Hall
Buck, Pearl Parshley, Arts	*Bangor*	The Maples
Buker, Helen Louise, He.	*Auburn*	The Maples
Burke, Roger Wallace, Arts	*Portland*	302 H. H. Hall
Burns, Harry Millay, Ee.	*Union*	20 Grove Street
Burns, Robert Aloysius, Arts	*Albany, N. Y.*	308 Center Street, Bangor
Burns, Robert Miles, Arts	*Portland*	304 H. H. Hall
Cabeen, Robert Anderson, Ch.	*Provincetown, Mass.*	309 H. H. Hall
Cameron, Roger Tarr, Agr.	*Gloucester, Mass.*	206 Oak Hall
Campbell, Alice Wood, Arts	*Machias*	Mt. Vernon House
Campbell, Truman Frederick, Ch.Eng.	*Boothbay Harbor*	311 Oak Hall
Cann, Dorothy Virginia, Arts	*East Moriches, Long Island, N. Y.*	The Maples
Carpenter, Helen Janet, Arts	*Lincoln*	64 Penobscot Street
Carr, Esther Pearne, Arts	*Marlboro, Mass.*	Mt. Vernon House
Carr, Ethel May, He.	*Cape Cottage*	The Maples
Carroll, Clifton Lewis, Fy.	*New Harbor*	29 Pond Street
Chadwick, Frank Newton, Agr.	*Ward Hill, Mass.*	102 H. H. Hall
Chapman, Franklin Sproat, Agr.	*Bethel*	306 Oak Hall
Chase, Richard Getchell, Arts	*Limestone*	111 H. H. Hall
Chittick, Robert Harris, Agr.	*Portland*	201 H. H. Hall

Chute, Kenneth Merton, Ce.	*Harrison*	412 H. H. Hall
Clark, Rebecca Carroll, Arts	*Southwest Harbor*	The Maples
Clarke, George Ahrens, Arts	*South Portland*	402 H. H. Hall
Cleaves, Arthur Tobey, Ch.Eng.	*Sangerville*	176 Nowell Road, Bangor
Clunie, Robert Lyall, Arts	*Rumford*	211 H. H. Hall
Cohen, Mae Elouise, Arts	*Bangor*	50 East Summer Street, Bangor
Colby, Ruth Simpson, Arts	*Canton, Mass.*	Mt. Vernon House
Collette, Myron Gilbert, Arts	*Spencer, Mass.*	310 Oak Hall
Colwell, Gladys Mae, Arts	*Hancock*	Mt. Vernon House
Coombs, John Matthews, Ee.	*Boothbay Harbor*	311 Oak Hall
Cooney, Daniel Joseph, Arts	*Brookline, Mass.*	306 Oak Hall
Copeland, Henry George, Ch.Eng.	*Thomaston, Conn.*	15 Park Street
Corbett, Alan Campbell, Agr.	*Orono*	Campus
Costa, Charles Henry, Arts	*Lawrence, Mass.*	405 Oak Hall
Coté, Lawrence Frederick, Ce.	*Caribou*	102 Oak Hall
Covell, Mildred Edith, He.	*Monmouth*	Bennoch Street
Cowan, Frank Raymond, Jr., Me.	*Brewer*	30 School Street, Brewer
Cox, Alfred Bently, Ee.	*Livermore*	College Road
Crabtree, Theodore Jesse, Fy.	*North Jay*	408 Oak Hall
Craigie, Robert Schumann, Arts	*Stoneham, Mass.*	304 Oak Hall
Crockett, Charles, Arts	*Stonington*	412 Oak Hall
Crowder, Albert Philip, Jr., Arts	*Bangor*	310 Broadway, Bangor
Crowell, Alice Gammon, Arts	*Bangor*	79 Fourth Street, Bangor
Cunningham, Carl Winslow, Agr.	*Union*	310 Oak Hall
Currie, Darrel Bishop, Arts	*Hartland*	College Road
Currier, Carolyn Emily, Arts	*Bangor*	Mt. Vernon House
Davis, Kitty, Arts	*Mechanic Falls*	The Maples
Dawson, John James, Jr., Fy.	*Mexico*	304 Oak Hall
Dean, John Reynolds, Agr.	*Waterville*	205 Oak Hall
DeCormier, Phyllis Delaney, Arts	*Westbrook*	Mt. Vernon House
Demont, Ralph Lewis, Ch.	*Old Town*	33 Oak Street, Old Town
Dennett, Firth Lombard, Ch.Eng.	*Brownfield*	410 H. H. Hall
Dexter, Charles Francis, Me.	*Norwood, Mass.*	109 Oak Hall
Dionne, Bernard Edward, Ch.Eng.	*Van Buren*	403 Oak Hall
Doe, Frank Eustace, Eng.	*Concord, N. H.*	105 Oak Hall
Doherty, Albert Vincent, Arts	*Bangor*	55 Maple Street, Bangor
Dole, Ira Frederic, Eng.	*Bangor*	55 Boutelle Road, Bangor

Dolliver, Mildred Harriet, He.	*Northeast Harbor*	The Maples
Dorr, Leonore Evelyn, He.	*Brewer*	236 Center Street, Brewer
Doughty, Edward Everett, Agr.	*Oxford*	111 Oak Hall
Dow, Vivian Jennie, Arts	*Stillwater*	Stillwater
Dowd, Maxim James, Arts	*Portland*	310 Oak Hall
Downey, Adrian Kenneth, Arts	*Arlington, Mass.*	411 H. H. Hall
Dunbar, Roger Prince, Arts	*Machias*	104 Oak Hall
Duncan, Maurice Lynn, Fy.	*Rockland*	103 H. H. Hall
Dunlevy, Raymond Knowles, Fy.	*Brockton, Mass.*	310 H. H. Hall
Durette, Ralph Joseph, Agr.	*Old Town*	56 Fifth Street, Old Town
Dyer, Madelyn Edith, Arts	*Winter Harbor*	Mt. Vernon House
Eliasson, Anna Elizabeth, He.	*Ellsworth*	Mt. Vernon House
Epstein, Geneva Rheta, Arts	*Bangor*	The Maples
Erskine, Robert Joseph, Arts	*Randolph*	105 Oak Hall
Etter, John Marshall, Ee.	*Orono*	188 Main Street
Farrer, Lawrence Arnold, Ce.	*Easton*	203 H. H. Hall
Farrin, Frank Eliphalet, Arts	*South Bristol*	27 Park Street
Field, Harold Earle, Me.	*Bangor*	183 Hammond Street, Bangor
Fitch, Donald Max, Arts	*Orono*	32 College Road
Fitz, Arland Andrew, Ee.	*Corinth*	Stillwater
Fitzpatrick, Kenneth Francis, Arts	*No. Weymouth, Mass.*	112 Oak Hall
Flagg, Guy Melvin, Arts	*Bangor*	212 H. H. Hall
Flanagan, ,John Wilfrid, Ee.	*Bangor*	207 Maple Street, Bangor
Fogarty, John Joseph, Ee.	*West Haven, Conn.*	112 Oak Hall
Foley, Howard William, Arts	*Marblehead, Mass.*	403 Oak Hall
Ford, Leonard Harris, Jr., Arts	*Bangor*	110 Oak Hall
Foster, Ruel Marshal, Fy.	*Milford*	Milford
Fowles, Rachel, He.	*Belfast*	38 Penobscot Street
Frame, George Marshall, Arts	*Searsport*	112 H. H. Hall
Freeman, Frank Perley, Jr., Ee.	*Harrison*	412 H. H. Hall
Fuller, Charlotte Ann, Arts	*Hallowell*	Mt. Vernon House
Fuller, Georgia Isabel, Arts	*Togus*	Mt. Vernon House
Galbraith, Joseph, Me.	*Pleasant Plains, Staten Island, N. Y.*	403 H. H. Hall
Gardner, Edith Oak, He.	*Orono*	133 Main Street
Garvin, Paul Lester, Agr.	*Alfred*	110 Oak Hall

Gibbons, Edward Condon, Arts	*Bangor*	91 Sanford Street, Bangor
Giddings, Elizabeth Helen, Arts	*Saco*	The Maples
Gifford, Elizabeth Annette, Arts	*Dorchester, Mass.*	The Maples
Giroux, Loris Winfield, Agr.	*Lubec*	111 Oak Hall
Gleszer, Roland Merrill, Arts	*Bangor*	312 H. H. Hall
Golobski, Bruno, Arts	*Lawrence, Mass.*	403 H. H. Hall
Gonya, Helen Elizabeth, Arts	*Millinocket*	Mt. Vernon House
Goodwin, Ruth Emma, Arts	*Alfred*	The Maples
Gordon, Alfred Brooks, Arts	*Dexter*	108 Oak Hall
Gordon, Richard Oliver, Ch.Eng.	*Woodfords*	108 Oak Hall
Goulette, Melvin Arthur, Ce.	*Skowhegan*	106 Oak Hall
Gowen, Clark Hathaway, Arts	*West Newbury, Mass.*	106 Oak Hall
Grant, Clarice Jeanette, Arts	*Sandypoint*	Mt. Vernon House
Grant, Eric Hilton, Eng.	*Richmond*	303 H. H. Hall
Grant, Gerald Virgil, Ce.	*Sandypoint*	5 Forest Avenue
Green, Lucien Keene, Jr., Arts	*Rockland*	212 H. H. Hall
Gross, Francis Lane, Arts	*Stonington*	60 Park Street
Guptill, Arnold Artemus, Arts	*Bangor*	161 Hammond Street, Bangor
Haggett, James Wilder, Ce.	*North Edgecomb*	202 H. H. Hall
Haggett, Robert Marshall, Ee.	*Portland*	312 Oak Hall
Hall, Margaret Elizabeth, Arts	*Castine*	24 Crosby Street
Hallé, Leonel Paul, Arts	*Skowhegan*	104 Oak Hall
Hamilton, Phylis Brander, He.	*South Portland*	The Maples
Hamilton, Robert John, Ch.Eng.	*Madison*	304 H. H. Hall
Hamlin, Lloyd Francis, Arts	*Hampden Highlands*	College Road
Hanson, Edward Coe, Ee.	*South Swansea, Mass.*	411 Oak Hall
Hardy, George Elliott, Jr., Ch.	*Fitchburg, Mass.*	307 Oak Hall
Harmon, Charles Arthur, Agr.	*Caribou*	203 H. H. Hall
Harmon, Pauline Isabelle, Arts	*Fort Fairfield*	The Maples
Harper, Lillian Eliza, He.	*Brownville Junction*	Balentine Hall
Harriman, Margaret Agnes, Arts	*Ellsworth*	Mt. Vernon House
Harris, Emory Edward, Ee.	*North Monmouth*	310 H. H. Hall
Harris, Karl Frederick, Me.	*The Forks*	3 Park Street
Harrison, George Jewett, Ee.	*Houlton*	74 North Main Street
Harvey, Natalie Frances, Arts	*Bangor*	106 Cedar Street, Bangor
Hatch, Bert William, Arts	*Woolwich*	202 Oak Hall

Hatch, Willard Sumner, Arts	*Newburyport, Mass.*	201 Oak Hall
Havener, Mary Elizabeth, He.	*Searsport*	The Maples
Hayes, Ralph Franklin, Ch.Eng.	*South Portland*	204 Oak Hall
Hendrickson, Karl Newcomb, Eng.	*Brewer*	1 James Street, Brewer
Hennings, John Porter, Ce.	*Portland*	112 H. H. Hall
Herrick, Vernon Arthur, Arts	*Easton*	204 H. H. Hall
Hickey, Frederick Henry, Arts	*Old Town*	19 High Street, Old Town
Higgins, Arlene Edris, He.	*Lewiston*	The Maples
Higgins, Ralph Percy, Eng.	*Old Town*	201 Stillwater Avenue, Old Town
Higgins, Richard Eugene, Arts	*Bangor*	706 Broadway, Bangor
Hill, Edith Bradley, He.	*Orono*	9 Kell Street
Hill, Elinor Margueretta, He.	*Orono*	162 College Road
Hill, Thomas Mason, Arts	*Bucksport*	405 H. H. Hall
Hills, Graham MacAlman, Eng.	*Rockland*	210 H. H. Hall
Hinckley, William Peters, Eng.	*Blue Hill*	211 H. H. Hall
Hinkley, Ruth Constance, Arts	*Brewer*	1 Chamberlain Street, Brewer
Hirshon, Selvin, Arts	*Portland*	209 Oak Hall
Holden, Faith Whittier, Arts	*Bangor*	9 Charles Street, Bangor
Holmes, Franklin Joseph, Ee.	*Stillwater*	Stillwater
Homan, Carroll Alfred, Ch.Eng.	*Groveland, Mass.*	407 Oak Hall
Homer, Margaret Sibyl, He.	*Franklin*	184 Main Street
Homonoff, Louis, Arts	*Dorchester, Mass.*	104 H. H. Hall
Hooper, James Stinson, Me.	*Brewer*	8 Silk Street, Brewer
Horwich, Samuel, Arts	*Portland*	104 H. H. Hall
Howard, Dorothy, He.	*Dover-Foxcroft*	Mt. Vernon House
Howard, George Everett, 2nd, Ce.	*Dover-Foxcroft*	408 H. H. Hall
Howes, Grafton Everett, Ee.	*Dennis, Mass.*	312 H. H. Hall
Huff, Donald Albert, Arts	*Lynnfield Centre, Mass.*	401 Oak Hall
Hutchins, Roger Dexter, Ee.	*Cape Porpoise*	207 H. H. Hall
Ireland, Kenneth Lawrence, Eng.	*Garden City, N. Y.*	406 Oak Hall
Ives, Lawrence Alfred, Fy.	*Topsfield, Mass.*	401 Oak Hall
Jackman, William Lounsbury, Arts	*Orono*	College Road
Jatkevicius, Joseph Walter, Arts	*Thompsonville, Conn.*	310 H. H. Hall

Jenkins, Philip Eugene, Fy.	*Monticello*	203 H. H. Hall
Johnson, Donald Goodwin, Arts	*Bar Harbor*	204 H. H. Hall
Johnson, Thomas Cabot, Fy.	*Nahant, Mass.*	204 H. H. Hall
Johnstone, Kenneth Horace, Ch.Eng.	*Portland*	404 Oak Hall
Jones, Dorothy Adaline, Arts	*Bangor*	The Maples
Jones, William French, Arts	*Darien, Conn.*	148 Main Street
Jordan, Elizabeth Pennell, Arts	*Woodfords*	The Maples
Jordan, Grenville Elder, Jr., Ee.	*South Portland*	411 Oak Hall
Judd, Albert Donald, Agr.	*South Paris*	410 Oak Hall
Kadish, Samuel Harris, Arts	*Portland*	16 Pine Street
Keller, Lyndon Maynard, Ee.	*Pripet*	55 Bennoch Street
Kelsey, Lewis Thurlo, Arts	*South Bristol*	27 Park Street
Kendall, Donna Lucile, Arts	*Waterville*	Balentine Hall
Kenny, John Charles, Ch.Eng.	*Palmer, Mass.*	412 H. H. Hall
Kilas, Barley, Ee.	*Rumford*	103 H. H. Hall
King, Frances Edith, Arts	*Bethel*	Mt. Vernon House
Kittrick, Irene Agatha,, Arts	*Millinocket*	Mt. Vernon House
Knowlton, Richard Collette, Arts	*Rockland*	56 North Main Street
Ladd, Elizabeth Crossgrove, Arts	*Pripet*	Mt. Vernon House
Langille, Ranald, Arts	*York Village*	25 Grove Street
Largay, Charles William, Ch.Eng.	*Bangor*	21 Maple Street, Bangor
Larson, Karl Vincent, Arts	*Machias*	207 H. H. Hall
Lermond, Herbert Malcolm, Fy.	*Rumford*	301 H. H. Hall
Levenseller, Gorham Henry, Arts	*Bangor*	78 Kenduskeag Avenue, Bangor
Levenson, Roger, Arts	*Bangor*	306 H. H. Hall
Lewis, William Wyman, Me.	*Oakland*	25 Grove Street
Lieb, William, Arts	*Roxbury, Mass.*	412 Oak Hall
Lippa, Leo Philip, Arts	*Peabody, Mass.*	12 Park Street
Little, Henry Phinney, Ce.	*Augusta*	405 H. H. Hall
Littlefield, George Wentworth, Agr.	*Albion*	303 H. H. Hall
Littlehale, Robert Lowe, Jr., Arts	*Belmont, Mass.*	101 Oak Hall
Litz, Margaret Jayne, He.	*Limestone*	The Maples
Logan, Ashley Hamilton, Agr.	*Orono*	33 Pond Street
Lord, Richard Newell, Arts	*Brewer*	74 State Street, Brewer
Lord, Susan Perry, Arts	*Portland*	Mt. Vernon House
Lull, David Thomas, Ch.Eng.	*Augusta*	312 H. H. Hall
Lunt, Richard Royal, Eng.	*Portland*	404 H. H. Hall
Lynch, James Clifford, Arts	*Bangor*	244 Birch Street, Bangor

McAlary, Francis James, Eng.	*Rockland*	112 H. H. Hall
McCausland, Dexter Linwood, Me.	*Portland*	103 Oak Hall
MacDonald, Donald Francis, Arts	*Bangor*	259 State Street, Bangor
McDougall, John Robert, Ee.	*Bangor*	169 Main Street
McKay, Robert, 3rd, Fy.	*Little Falls, N. J.*	305 H. H. Hall
McKechnie, Helen Louise, Arts	*Houlton*	The Maples
McKenney, Edward Fuller, Arts	*Lincoln*	409 H. H. Hall
MacKenzie, Jeannette Frances, Arts	*New Haven, Conn.*	The Maples
MacLean, Charles Buck, Ce.	*Hartford, Conn.*	304 H. H. Hall
MacNaughton, Donald Wesley, Arts	*Brunswick*	32 West Broadway, Bangor
McPhee, James Walter, Arts	*Bangor*	31 Dexter Street, Bangor
McPherson, Harland Franklin, Ee.	*Gray*	212 H. H. Hall
Mann, Lewis Jacob, Me.	*West Paris*	106 Middle Street, Old Town
Manning, William Jerome, Arts	*Thomaston*	24 Oak Street
Marble, Charles Burr, Jr., Fy.	*Portland*	308 Oak Hall
Mehann, Dorothea Kathleen, Arts	*Old Town*	29 Harthorne Avenue, Bangor
Mehann, Royal Orman, Eng.	*Old Town*	74 So. Brunswick Street, Old Town
Merrill, Arlene, Arts	*Bangor*	333 Union Street, Bangor
Merrill, James Walker, Ce.	*Fryeburg*	Φ K Σ House
Merrill, Lewis Charles, Arts	*Stetson*	19 Third Street, Bangor
Merriman, Eleanor, Arts	*Topsham*	The Maples
Meyer, Lester Jacob, Arts	*Brookline, Mass.*	311 H. H. Hall
Michaud, Ulysses Thomas, Agr.	*Great Works*	Great Works
Miller, John Fessenden, Arts	*Camden*	407 H. H. Hall
Miller, Sydney Roland, Ee.	*Portland*	201 H. H. Hall
Mills, Clyde Burr, Ch.Eng.	*Brewer*	74 Washington Street, Brewer
Mills, Frederick Otis, Arts	*Wellesley Hills, Mass.*	24 Oak Street
Mindel, Leonard, Arts	*Boston, Mass.*	104 H. H. Hall
Mongovan, William David, Arts	*Bangor*	4 Graham Avenue, Bangor
Moody, Richard Percival, Ee.	*Arlington, Mass.*	301 H. H. Hall
Moran, William Henry, Jr., Arts	*Brewer*	30 Blake Street, Brewer
Morrison, Frank Brown, Agr.	*Milford*	Milford
Morrison, Robley Howe, Me.	*Norway Lake*	202 H. H. Hall

Morrow, John Lockard, Me.	*Great Neck, Long Island, N. Y.*	309 Oak Hall
Morse, Frank Harold, Me.	*Bangor*	28 Boutelle Road, Bangor
Morton, Rutledge, Eng.	*Portland*	205 H. H. Hall
Mullen, Burton Edward, Arts	*White Valley, Mass.*	409 Oak Hall
Mullen, Joseph Thomas, Arts	*Bangor*	169 West Broadway, Bangor
Murch, Thomas Scribner, Ch.	*Lewiston*	305 Oak Hall
Murphy, John Arthur, Ch.	*Eastport*	303 Oak Hall
Murphy, Leo Joseph, Arts	*Eastport*	303 Oak Hall
Murry, Gertrude Louise, Arts	*Bangor*	Mt. Vernon House
Myers, William James, Ee.	*Bemis*	Σ N House
Nash, Kenneth Bonney, Agr.	*Abington, Mass.*	109 Oak Hall
Naugler, Reginald Whitfield, Ce.	*Topsham*	404 H. H. Hall
Naviski, Justin Joseph, Ee.	*Lewiston*	209 H. H. Hall
Nelson, Virginia Cobb, Arts	*Guilford*	Mt. Vernon House
Nolan, Vincent Thomas, Arts	*Bayonne, N. J.*	6 Mill Street
Northup, George Henry, Fy.	*Morristown, N. J.*	404 H. H. Hall
Oakes, Maurice Andrew, Arts	*West Enfield*	309 H. H. Hall
O'Connor, James Francis, Arts	*Augusta*	212 H. H. Hall
Owen, Milton Hugh, Ch.	*Taunton, Mass.*	309 H. H. Hall
Oxner, Karl Robert, Ee.	*South Berwick*	209 H. H. Hall
Palmer, Martha Virginia, He.	*Orono*	32 Myrtle Street
Parker, Carroll Curatia, Ch.Eng.	*Livermore Falls*	24 Pierce Street
Parker, Douglas Gray, Ee.	*Lewiston*	412 H. H. Hall
Parker, Elizabeth Stanton, Arts	*Augusta*	148 College Road
Patten, Charles Terrence, Agr.	*Skowhegan*	211 H. H. Hall
Peaslee, Frank Danforth, Arts	*Portland*	401 H. H. Hall
Peavey, Anora Howard, He.	*Bangor*	128 Cumberland Street, Bangor
Perkins, Theodore Clark, Ce.	*Hingham, Mass.*	411 H. H. Hall
Perry, Mary Katherine, Arts	*Orono*	39 Pine Street
Perry, Ruth Deborah, He.	*Rockland*	Mt. Vernon House
Perry, Ruth Elizabeth, He.	*Orono*	39 Pine Street
Peterson, Lester Carl, Fy.	*Quincy, Mass.*	209 H. H. Hall
Philbrook, Elisabeth, Arts	*Brookline, Mass.*	332 Stillwater Avenue, Old Town

Pinkham, Ralph Walter, Jr., Ee.	*Houlton*	101 H. H. Hall
Porter, Elmer Lincoln, Jr., Fy.	*Freeport*	209 H. H. Hall
Poulsen, Andrew Waldemar, Fy.	*Hudson Heights, N. J.*	30 Mill Street
Powell, Raymond Appleton, Agr.	*Carmel*	25 Grove Street
Prince, Alton Ernest, Fy.	*Brewer*	27 Chapman Street, Brewer
Pruett, Kenneth Sherwood, Fy.	*Kittery*	101 H. H. Hall
Racioppi, Beatrice Marie, He.	*Salem, Mass.*	The Maples
Ramirez, Xavier Hall, Arts	*Bangor*	32 Pierce Street
Rappaport, Maurice, Arts	*Lawrence, Mass.*	402 Oak Hall
Raymond, Gordon Byron, Ee.	*Robinson*	407 Oak Hall
Reed, Bernice Lillian, Arts	*Washington, D. C.*	Mt. Vernon House
Reed, Ruth Barbara, Arts	*Hampden Highlands*	The Maples
Reed, Thomas Frank, Ch.Eng.	*Bangor*	31 Parkview Avenue, Bangor
Richards, Madalyn, He.	*Farmington*	The Maples
Richter, Robert Montgomery, Jr., Ee.	*Rockville Centre, N. Y.*	410 H. H. Hall
Roberts, Arthur Leon, Fy.	*West Kennebunk*	203 H. H. Hall
Robie, Charles Case, Ce.	*Westbrook*	201 Oak Hall
Rollins, Donald Louis, Arts	*Bangor*	76 Summer Street, Bangor
Ross, Howard Page, Ee.	*Lincolnville*	42 Mill Street
Rottenberg, Alfred Louis, Arts	*Boston, Mass.*	301 Oak Hall
Round, Lizzie Ethelyn, He.	*Enfield*	64 Penobscot Street
Rowe, Herbert Russell, Fy.	*Bethel*	382 College Road
Russell, David Alexander, Ee.	*North Jay*	311 H. H. Hall
Russell, Robert Perley, Agr.	*Orono*	9 Pine Street
Salisbury, Robert Holmes, Arts	*Ellsworth*	101 H. H. Hall
Sanborn, Barbara May, Arts	*Portland*	The Maples
Sanborn, Raymond Jones, Agr.	*Auburn*	25 Grove Street
Sanders, Bernhard Charles, Arts	*Bangor*	64 Leighton Street, Bangor
Sanders, Nathalie, Arts	*Bangor*	64 Leighton Street, Bangor
Sargent, Kenneth Paul, Ce.	*Bangor*	101 H. H. Hall
Saunders, Claire Curtis, Arts	*Blue Hill*	The Maples
Saunders, Ernest, Jr., Arts	*Lewiston*	305 Oak Hall
Sawyer, John Emmons, Ee.	*Bangor*	473 Hammond Street, Bangor

Sawyer, Mildred Lucile, Arts	*Bangor*	The Maples
Scanlin, Donald Alexander, Arts	*Bangor*	31 Katahdin Street, Bangor
Schernecker, Ann Laure, He.	*Madison, Wisconsin*	81 Fourth Street, Old Town
Schiro, Elizabeth Madeline, Arts	*Bangor*	The Maples
Sealey, John Clifford, Jr., Agr.	*Southborough, Mass.*	111 H. H. Hall
Sewall, Margaret Grazebrook, Arts	*Old Town*	332 Stillwater Avenue, Old Town
Shaw, Beulah Lilah, Arts	*Freeport*	66 College Road
Shaw, Charles Harlan, Jr., Arts	*Amherst, Mass.*	103 Oak Hall
Shaw, Howard Earle, Jr., Ch.Eng.	*Portland*	411 Oak Hall
Shaw, Leonard Frederick, Fy.	*Newton Centre, Mass.*	402 H. H. Hall
Shiro, Samuel Herman, Arts	*Old Town*	30 South Fourth Street, Old Town
Sidelinger, Dana Peabbles, Fy.	*South Portland*	406 Oak Hall
Silverman, Sidney, Arts	*Lewiston*	12 Park Street
Simpson, Robert Waldo, Ch.	*Corinna*	College Road
Sisco, Elmer Ashburn, Arts	*Portland*	208 H. H. Hall
Slosberg, Gerald Arthur, Ch.Eng.	*Portland*	201 H. H. Hall
Smith, Albert Temple, Arts	*Bangor*	42 Harthorne Avenue, Bangor
Smith, James Jacob, Fy.	*Waterville*	302 Oak Hall
Smith, William Arthur, Me.	*Dennysville*	306 H. H. Hall
Snow, Philip Porter, Ce.	*Biddeford Pool*	202 H. H. Hall
Solomon, Henry Ralph, Arts	*New York, N. Y.*	302 H. H. Hall
Somers, Thomas Joseph, Arts	*Gloucester, Mass.*	103 H. H. Hall
Spear, Jeremy Harvey, Fy.	*Old Town*	212 Center Street, Old Town
Spinney, Harold Almon, Agr.	*Kittery*	103 H. H. Hall
Stanley, Herbert Neil, Agr.	*Pittsfield*	305 H. H. Hall
Steeves, Louise Elizabeth, Arts	*Lincoln*	The Maples
Steinberg, Howard Gerard, Me.	*Brooklyn, N. Y.*	301 Oak Hall
Stevens, Mary Frances, He.	*North Belgrade*	Mt. Vernon House
Stewart, Gordon Alexander, Arts	*North Vassalboro*	403 H. H. Hall
Stilphen, Paul Leslie, Me.	*Richmond*	303 H. H. Hall
Stinchfield, Charles Howard, Ch.	*Wayne*	102 H. H. Hall

Stinchfield, John Clark, Ch.	*Wayne*	102 H. H. Hall
Stone, Lillian Emma, Arts	*Augusta*	54 Main Street
Stover, Robert Lemuel, Arts	*Brunswick*	109 H. H. Hall
Sturgis, Elliott Augustus, Arts	*Portland*	66 College Road
Sturtevant, Francis Chester, Arts	*Farmington*	25 Grove Street
Sullivan, Bettina Frances, Arts	*Bangor*	The Maples
Sullivan, Mary Kathleen, Arts	*Bangor*	391 Main Street, Bangor
Swasey, Samuel Elliot, Me.	*Marblehead, Mass.*	206 H. H. Hall
Sweeney, Alfred, Jr., Ee.	*Auburn*	66 College Road
Sylvester, Ruth Natalie, Arts	*Eustis*	The Maples
Talbot, Mary Poor, He.	*Orono*	40 Forest Avenue
Tanner, Alfreda Mae, He.	*South Portland*	Mt. Vernon House
Taylor, Carleton Lewis, Jr., Ch.Eng.	*Litchfield*	80 North Main Street
Taylor, Paul Edward, Arts	*Kittery*	110 H. H. Hall
Tevrowsky, Harry, Arts	*Peabody, Mass.*	12 Park Street
Thayer, Arthur Linwood, Jr., Me.	*Bangor*	13 Hayward Street, Bangor
Thompson, John Francis, Arts	*Bangor*	State Hospital, Bangor
Tilton, Malcolm Louville, Agr.	*Burnham*	25 Grove Street
Tondreau, Roderick Louis, Arts	*Brunswick*	110 H. H. Hall
Torrey, Glen Willard, Ch.Eng.	*Auburn*	307 H. H. Hall
Tracy, Lillian Evelyn, He.	*Bangor*	Mt. Vernon House
Treinor, Mary Reedy, He.	*Bangor*	96 Cedar Street, Bangor
Tropp, Charles, Fy.	*Brooklyn, N. Y.*	109 H. H. Hall
Tunick, Moe, Arts	*Greenwich, Conn.*	134 College Road
Vaughan, Albert Edward, Ee.	*Whitman, Mass.*	66 College Road
Vermilyea, Ralph Arnotte, Ee.	*Wellesley Hills, Mass.*	208 Oak Hall
Verrill, Albert, Jr., Arts	*Cumberland Mills*	206 H. H. Hall
Viner, Leo, Arts	*Bangor*	339 Hancock Street, Bangor
Wakefield, James Adelbert, Jr., Ce.	*Cumberland Center*	112 H. H. Hall
Wakely, Eugene True, Arts	*Topsham*	404 H. H. Hall
Walker, Murdock, Arts	*Millinocket*	410 H. H. Hall
Warren, Margaretta, Agr.	*Lincolnville*	Mt. Vernon House
Washington, Donald, Ch.Eng.	*Sanford*	401 H. H. Hall
Waxman, Gerald Robert, Arts	*Portland*	104 H. H. Hall
Webber, Philip Shepard, Arts	*Belfast*	107 Oak Hall

Webster, Edwin Parker, Jr., Ce.	*Auburn*	307 H. H. Hall
Wellman, David Peirce, Eng.	*Lewiston*	205 H. H. Hall
West, Leona Jeanne, Arts	*Bangor*	146 Elm Street, Bangor
Weston, Lowell Nathan, Arts	*Augusta*	406 H. H. Hall
Wheeler, Janet, Arts	*Leominster, Mass.*	The Maples
White, David Fletcher, Arts	*Augusta*	110 H. H. Hall
White, Edward Turner, Arts	*Vinalhaven*	56 North Main Street
Wilkins, Daniel William, Ee.	*North Jay*	311 H. H. Hall
Willard, Richard John, Me.	*Orono*	100 Bennoch Street
Wilson, Carlton Otis, Ce.	*Medford Hillside, Mass.*	402 H. H. Hall
Winch, Fred Everett, Jr., Fy.	*Framingham, Mass.*	110 H. H. Hall
Wood, Harry Boothman, Arts	*Bellows Falls, Vt.*	60 Park Street
Woodbury, Harold Mace, Eng.	*Portland*	404 Oak Hall
Woodman, Ada Marie, He.	*Washburn*	The Maples
Woodman, Chester Leroy, Agr.	*Washburn*	201 H. H. Hall
Woods, Eldredge Brown, Ce.	*Kittery*	102 Oak Hall
Woolston, Theodore Francis, Ce.	*Waban, Mass.*	210 H. H. Hall
Worcester, Alfred Small, Fy.	*Southwest Harbor*	210 H. H. Hall
Wormwood, Kathleen Bradbury, He.	*Portland*	The Maples
Worthley, Carl Allen, Agr.	*Strong*	301 H. H. Hall
Yeaton, George William, Arts	*Farmington*	409 H. H. Hall
Yeomans, Bernice Isabelle, Arts	*Wytopitlock*	220 Garland Street, Bangor

UPPERCLASS STUDENTS CONDITIONED FOR ADMISSION

Black, Ernest Thayer, Es.	('35)	*Portland*	Φ K Σ House
Bottume, Carl Huntington, Eh.	('35)	*Hamden, Conn.*	32 Mill Street
Butler, Edward Leroy, Jr., Es.	('35)	*Portland*	B Θ Π House
Butler, William Parkinson, Eh.	('35)	*North Anson*	Σ X House
Durgin, Carroll Allen, Ch.	('34)	*Brownfield*	Σ Φ Σ House
English, Albert Barnard, Me.	('35)	*Calais*	Σ Φ Σ House
Gray, Marshall LeRoy, Es.	('35)	*Waltham, Mass.*	A T Ω House
Hill, Earle William, Ms.	('35)	*Bingham*	A T Ω House
Jones, Frederick Henry, Hy.	('34)	*Darien, Conn.*	148 Main Street
Larsen, Lewis Alexander, Ch.Eng.	('35)	*Bangor*	B Θ Π House

McLeod, Gregg Clarke, Me.	('33)	*Stillwater*	K Σ House
Mayers, Lyndon Oscar, Ee.	('33)	*Hallowell*	Λ X A House
Moir, Clifford Lamprey, Py.	('35)	*Belmont, Mass.*	60 Forest Avenue
O'Connell, Lawrence Joseph, Me.	('34)	*Bangor*	Θ X House
Partridge, George Almon, Zo.	('34)	*Ellsworth*	Θ X House
Rapaport, Max, Hy.	('35)	*Caribou*	7 Summer Street
Robertson, Clayton Marshall, Zo.	('35)	*Caribou*	Φ Γ Δ House
Sleeper, Charles Willis, Zo.	('35)	*Old Town*	28 Elm Street, Old Town
Ward, Ierdell Clark, Me.	('34)	*Caribou*	Δ T Δ House

SPECIAL STUDENTS

Aurelio, George Hillman, Fy.	*Newtonville, Mass.*	301 H. H. Hall
Bartlett, John Robert, Pl.	*Bangor*	43 Peters Street
Conley, Mary Frances, Eh.	*Freeport*	66 College Road
Covell, Mildred Rebecca, Ms.	*Orono*	15 Pleasant Street
Cushman, J. Paul, Fy.	*Quincy, Mass.*	29 Forest Avenue
Cutler, Harold Masha, Ch.A.	*Old Town*	50 Shirley Street, Old Town
Eames, Sylvia Aldeanna, Pb.	*Bangor*	24 Sixth Street, Bangor
Foster, Philip Ray, Es.	*Bucksport*	K Σ House
Gould, Howard Duff, Pl.	*Bangor*	Bangor Theological Seminary
Hackett, Ralph Blackwell, Ce.	*Derby*	Θ X House
Hall, Carl Franklin, Pl.	*Bangor*	Bangor Theological Seminary
Hotz, Joseph Matthew, Me.	*Clifton, N. J.*	403 H. H. Hall
Hurley, Joseph Alexes, Arts	*Lawrence, Mass.*	307 Oak Hall
Hyland, Caroline Elizabeth, He.	*Orono*	180 Main Street
Jordan, Ralph Leo, Ed.	*Bangor*	13 Sanford Street, Bangor
Lunt, Frederick Bradlee, Arts	*Bangor*	16 Elizabeth Avenue, Bangor
Marcoux, Jean Paul, Ch.Eng.	*St. Ferdinand D'Halifax, Quebec*	12 Park Street
Maxfield, Jerome Churchill, Ch.Eng.	*Portland*	46 Main Street
Mayhew, William Robert, Pl.	*Bangor*	Bangor Theological Seminary
Morgan, John Ellsworth, Pl.	*Bangor*	Bangor Theological Seminary

Moulton, Ina Nelson, Arts	*Bangor*	156 State Street, Bangor
Mullaney, Ellen Mary, Eh.	*Bangor*	72 Garland Street, Bangor
Noyes, Minnie Alice, Arts	*Peaks Island*	The Maples
Pennings, Charles James, Arts	*Millinocket*	6 Mill Street
Qua, Marshall Tuxbury, Fy.	*Lowell, Mass.*	210 H. H. Hall
Quine, Charles Frederick, Arts	*Monroe*	Bangor Theological Seminary
Rees, George Raymond, Es.	*Orono*	7 Gilbert Street
Rich, Della Josephine, Mc.	*Orono*	15 Pleasant Street
Sparrow, Ernest Elliot, Me.	*Hampden Highlands*	11 Main Street
Stephenson, Leonidas Dacosta, Jr., Gm.	*Orono*	13 Hamlin Street
Williams, Elmer Briry, Arts	*Old Town*	Old Town

TWO-YEAR COURSE IN AGRICULTURE

Second Year

Clapp, Mark Carpenter	*Sedgwick*	A Γ P House
Durkee, Wentworth Eugene	*Pripet*	55 Bennoch Street
Henley, Roger Groton	*Rangeley*	7 Summer Street
Myers, Frederick Hamilton	*Orono*	33 Spencer Avenue
Piper, Donald Albert	*Stetson*	34 Pine Street
West, Randolph Hartwell	*North Berwick*	55 Bennoch Street
Young, Alton Philip	*South Windham*	25 Grove Street

First Year

Coffin, John Taylor	*Bangor*	100 Seventh Street, Bangor
Grant, John Benjamin	*North Belgrade*	A Γ P House

SPRING SEMESTER, 1933

New Registrations

Graduate Students

McCormick, Malcolm Young, B.A., Py. Maine, 1932	*Orono*	55 North Main Street
Schrumpf, Mildred Brown, B.S., He. Maine, 1925	*Orono*	University Place
Somers, Dorothy Marie, B.S., He. Maine, 1932	*Bangor*	89 Howard Street, Bangor
Whitney, Elna Aldrich, B.A., Py. Maine, 1932	*Milford, Mass.*	30 Forest Avenue

Seniors

Carter, Marian Ada, Ms.	*Bangor*	15 Morse's Court, Bangor
Dorr, Gertrude Neal, Ms.	*Bangor*	71 Poplar Street, Bangor
Fisher, Clayton Donald, Ed.	*Orono*	22 Myrtle Street
Gerry, Albert Francis, Ce.	*Brewer*	92 Fling Street, Brewer
Gross, Laura Keller, Eh.	*Stonington*	Balentine Hall
Prout, Stanley Rishworth, Es.	*South Portland*	A T Ω House

Juniors

Anderson, Burton, Ed.	*Orono*	227 Main Street
Fall, Ward Moulton, Ce.	*Sanford*	Θ X House
Hodgkins, Roger Wallace, Ee.	*Bar Harbor*	Θ X House
Holman, Howard Childs, Ed.	*Bangor*	103 Poplar Street, Bangor
Kidder, James Harrison, Ce.	*Houlton*	Σ N House
McCracken, Howard Franklin, Fy.	*Brewer*	231 Center Street, Brewer
Marsh, Henry Stacy, Es.	*Rockland*	Θ X House
Paul, Mildred Gladys, He.	*Bangor*	29 East Summer Street, Bangor
Willard, Robert Pierce, Me.	*Malden, Mass.*	A T Ω House
Young, Virginia Florence, Sp.	*Newton Highlands, Mass.*	Colvin Hall

Sophomores

Akeley, Robert Vinton, Ag.	*Presque Isle*	Φ H K House
Cornellier, Doris Eleanor, Py.	*Westfield, N. J.*	Balentine Hall
Corrigan, Ralph Jerome, Es.	*Millinocket*	Θ X House
Moyer, Charles Bruce, Hy.	*Caribou*	Φ Γ Δ House
Richards, Milburn Loring, Me.	*Millinocket*	Φ K Σ House

Freshmen

Morgan, Edward Alanson, Eng.	*Bangor*	17 Pleasantview Street, Bangor
Wilde, Francis William, Arts	*Bangor*	101 Center Street, Bangor

Special Students

Fisher, Treva Dukes, Eh.	*Orono*	22 Myrtle Street
Gelinas, Moses, Eng.	*Roxbury, Mass.*	169 Broadway, Bangor
Parr, Bernard Franklin, Arts	*Orono*	75 Forest Avenue
Smith, Dorothy, Sp.	*Bangor*	53 High Street, Bangor

SUMMER SESSION, 1932

Students Registered for Graduate Credit

Allen, William Henry, B.A., Ed. *Brownville Junction*
Maine, 1919

Andrews, Dorothy Craighead, B.S. in Ed., M.A., Py. *Lansdowne, Pa.*
Pennsylvania, 1928, 1930

Armstrong, Beatrice Alpha, B.A., Hy. *Cliftondale, Mass.*
Boston University, 1929

Bazinet, Genevieve Elizabeth, B.A., Ed. *Glens Falls, N. Y.*
Cornell University, 1925

Bean, Carroll Leslie, B.A., Ed. *Portland*
Bowdoin, 1921

Beedle, Llewellyn Woodward, B.A., Ed. *Sargentville*
Maine, 1926

Bowen, Howard Lancaster, B.A., Ed. *Bingham*
Maine, 1924

Boyd, Elizabeth Margaret, Hons. B.Sc., Zo. *Edinburgh, Scotland*
Edinburgh University, 1930

Brush, George Robert, Jr., B.A., Fr. *Orono*
Vermont, 1931

Bunker, Miriam Sarah, B.A., Ed. *Bangor*
Mount Holyoke, 1927

Burbank, Oren Abijah, B.S., Ed. *Arlington, Vt.*
Vermont, 1927

Caldwell, John Carroll, B.A., Ed. *Island Falls*
Maine, 1928

Canon, Bertha Violet, B.A., Lt. *Pittsfield, Mass.*
Smith, 1912

Chalmers, Constance Marsh, B.S., Ed. *Bangor*
Simmons, 1931

Chambers, Kathleen Rosalind, B.A., Ed. *Walton, N. Y.*
Barnard College, Columbia, 1929

Chaplin, Leola Bowie, B.A., Eh. *Cornish*
Maine, 1917

Chase, Julia Ardelle, B.A., Fr. *Houlton*
Colby, 1927

Christie, Lindon Edwin, B.S., Ed. Colby, 1930	*Milo*
Cox, Edwin Allerton, B.S. in Ed., Ed. Boston University, 1932	*Middleboro, Mass.*
Crandall, Catherine Evelyn, B.S. in Ed., Ed. Boston University, 1932	*Bangor*
Crocker, Richard Foster, B.S., Ed. Maine, 1914	*Fort Kent*
Cumming, George Jordan, B.S., Ed. Bowdoin, 1921	*Houlton*
Currier, Roland Ernest, B.S., Ed. Bates, 1926	*Mt. Vernon*
Daggett, Philip, B.A., Ed. Bowdoin, 1925	*Island Falls*
Davis, Earle Clifton, B.S., Ed. New York University, 1926	*North East, Pa.*
DeWitt, John Bailey, B.A., Ed. Colby, 1912	*La Grange*
Dickey, Eudola Deleney, B.S., Ed. Texas State College for Women, 1927	*El Campo, Texas*
Douglas, Sterling Ballou, B.Ch.E., Ed. Northeastern, 1931	*Woonsocket, R. I.*
Dow, Eleanor George, B.A. Es. Maine, 1932	*Bangor*
Earle, Gilbert Linwood, B.S., Ed. Colby, 1926	*Brownville Junction*
Fairman, Mary Evangeline, B.Ed., Eh. Rhode Island College of Education, 1924	*Pawtucket, R. I.*
Field, George Marion, B.A., Hy. Maine, 1932	*Detroit*
Finley, Raymond Stevens, B.A., Ed. Maine, 1925	*Pittsfield*
Frank, Josiah Henry, B.S., Es. Lafayette, 1926	*Brooklyn, N. Y.*
Frost, James Whitney, B.A., M.Ed., Ed. Dartmouth, 1920; Harvard, 1929	*Putnam, Conn.*

Fuller, Jesse Prince, B.S., Ed. *Liberty*
Capital University, 1929
Furlong, Hazel Frances, B.S., Ed. *Berlin, N. H.*
Farmington Normal, 1930

Gallison, Elmer Herbert, B.S., Ed. *Vanceboro*
Maine, 1931
Gardy, E. Barbara, B.S. in Ed., Ed. *Philadelphia, Pa.*
University of Pennsylvania, 1926
Garland, Gladys, B.S., Ch. *Bar Harbor*
Simmons, 1918
Gilbert, Rachel, B.A., Sp. *Bangor*
Maine, 1932
Gower, Alice Muriel, B.A., Ed. *Skowhegan*
Bates, 1932
Graffam, Eleanor Gertrude, B.S., Ed. *Brewer*
Simmons, 1930
Greene, Victor Nichols, B.B.A., Es. *Searsport*
Boston University, 1923
Greenfield, Henry, B.S., Zo. *New York, N. Y.*
College of the City of New York, 1930
Gross, Doris Lane, B.A., Eh. *Stonington*
Maine, 1931

Haines, Jane Esther, B.A., Ed. *Pomfret Center, Conn.*
Connecticut College for Women, 1931
Harris, Edna, B.S., Ed. *Arlington, N. J.*
New York University, 1920
Haskell, Ernest Edward, B.A., Ed. *North Anson*
Maine, 1925
Hellier, Peggy Whitney, B.A., Fr. *Rockland*
Wheaton, 1931
Hodgkins, Pearl Graffam, B.A., Ed. *Bangor*
Maine, 1926
Hutchings, Roland Lee, B.S., M.S., Ed. *Orrington*
Massachusetts Institute of
Technology, 1928, 1929

Ingersoll, Robert, B.S., Ed. *Orono*
Maine, 1923

Jackman, Edward Avery, B.S., Ed. Tufts, 1931	*West Medford, Mass.*
Keegan, Sister Mary Eucharia, B.S.E., Fr. St. Joseph's College, 1919	*Bangor*
Kelley, Norman James, B.S., Ed. Maine, 1925	*Waterville*
Keyes, Merle Roliston, B.S., Ed. Colby, 1908	*West Pembroke*
Kingman, David Raymond, B.A., Ed. Maine, 1930	*South Hanover, Mass.*
Kitchin, Elon Stanley, B.S., Ed. Colby, 1923	*Palermo*
Kittredge, Milton Donald, B.S., Ed. Bates, 1926	*McKinley*
Kolouch, Joseph Frederic, B.S., M.S., Ed. Maine, 1926, 1927	*Mapleton*
Lane, Mildred Harriet, B.A., Eh. Lebanon Valley College, 1929	*Lodi, N. J.*
Lemont, Ada Amelin, B.S., Ed. Farmington Normal, 1928	*Portland*
Lord, Helen Frances, B.A., Eh. Wheaton, 1924	*Skowhegan*
Madfes, Constance, B.A., Hy. Cornell University, 1929	*Brooklyn, N. Y.*
Magee, John Henry, B.A., M.A., Py. Maine, 1917, 1931	*Bangor*
Mansfield, Mildred Charlotte, B.A., Lt. Maine, 1907	*Bangor*
Mayo, Helen Natalie, B.A., Ed. Maine, 1926	*Orono*
McConville, Sister Mary Callista, B.S.E., Ed. St. Joseph's College, 1919	*Portland*
McCormick, Donald Munroe, B.A., Hy. Maine, 1932	*Orono*
McDonough, Helen Irwin, B.S., Ed. Farmington Normal, 1930	*Bangor*

Milbourn, Mildred Bertha, B.A., Ed. *Walton, N. Y.*
Keuka College, 1928
Moreland, James, B.A., Eh. *Orono*
Georgetown College, 1924
Morneault, Angeline Gertrude, B.A., Ed. *Bangor*
Maine, 1927
Morrill, Frieda Kirkendall, B.A., Ed. *Portland*
Defiance College, 1916
Morris, Esther Stowell, B.A., Ed. *East Lansdowne, Pa.*
Swarthmore, 1917
Morrison, Bertha Florence, B.S. in Ed., Ms. *East Saugus, Mass.*
Massachusetts State Teachers' College, Salem, 1929
Morse, Frank Leander Staples, B.A., Ed. *Rockland*
Maine, 1922
Murphy, Frederic Coleman, B.A., Ed. *Bangor*
Maine, 1928

Nivison, Margaret Boe, B.A., Zo. *Waterville*
Wellesley, 1932
Norton, Verna, B.Ped., B.A., Zo. *Caribou*
Maine, 1921, 1928
Noyes, Worth Langton, B.S., Ed. *Stetson*
Maine, 1929

Parks, Lois Estelle, B.S. in Ed., Ed. *Wakefield, Mass.*
Framingham Normal, 1929
Patterson, Robert Allen, B.A., Ed. *Providence, R. I.*
Harvard, 1919
Perkins, Arthur Chester, B.S. in Ed., Ed. *Columbia Falls*
Boston University, 1929

Reniers, Nan Woods, B.A., M.A., Ed. *Pittsburgh, Pa.*
Pittsburgh, 1922, 1932
Remley, Leslie Weldon, B.A., Zo. *Crawfordsville, Ind.*
Wabash, 1925
Ring, Elizabeth, B.A., M.A., Hy. *Orono*
Maine, 1923, 1926

Rooney, Mary Elizabeth, B.A., Hy. *Brewer*
College of New Rochelle, 1931
Ross, Ferne Charlotte, B.S., He. *Guilford*
Maine, 1918
Royal, Florence Taylor, B.A., Ed. *Hampden Highlands*
Maine, 1911

Saul, Marie Anna, B.A., M.A., Ed. *Pittsburgh, Pa.*
Carnegie Institute of Technology, 1926
Pittsburgh, 1932
Scott, Ermo Houston. B.A., Ed. *Castine*
Maine, 1931
Shaw, Ruth Isabelle, B.A., Ed. *Fryeburg*
Bates, 1930
Simpson, William Clyde, B.A., Eh. *New Kensington, Pa.*
Ohio State, 1929
Sinclair, Alice Webster, B.S., Ed. *Pittsfield*
Maine, 1929
Sinclair, Roy Upton, B.S., Ed. *Pittsfield*
Bates, 1926
Smith, Geneva May, B.S. in Ed., B.A., Ms. *East Corinth*
Boston University, 1924
Maine, 1931
Snow, Charles Augustus, B.A., Ed. *Fryeburg*
Maine, 1920
Spear, Ross Patterson, B.A., Ms. *Rockport*
Maine, 1930
Springer, William Glen, B.S., Ed. *Orono*
Colby, 1929
Stevens, Susie Wilhelmina, B.A., Lt. *Millbridge*
Colby, 1928
Stewart, Frank Raymond, B.A., Ms. *Rockland*
Maine, 1929

Tarbox, Fred August, B.S., Ed. *Calais*
Colby, 1923
Taylor, Russell Shepherd, B.A., Ed. *Greenville*
Bowdoin, 1908
Tiedemann, Edward George, B.A., Eh. *Brooklyn, N. Y.*
College of the City of N. Y., 1929

Tobey, Martha Mae, B.A., Ed. *Westfield, Mass.*
Colorado Teachers' College, 1920
Tolman, Edward Wesley, B.A., Ed. *Springfield*
Maine, 1930

Veayo, Galen Irving, B.A., Ed. *Bangor*
Maine, 1931
Veayo, Mary Nutter, B.A., Eh. *Bangor*
Bates, 1925
Wakelin, Maud Moore, B.A., Ed. *Orlando, Fla.*
Andrew College, 1902
Waterhouse, Mary, B.S., Ed. *Biddeford*
Maine, 1925
Webb, Alice Elizabeth, B.A., Ed. *Vienna, Md.*
Sweet Briar, 1928
Wescourt, Emanuel, B.A., Es. *Brooklyn, N. Y.*
Syracuse, 1925
Whitcomb, Charles Floyd, B.A., Fr. *New Sharon*
Maine, 1931
Willis, Hope Emeline, B.Sc., B.Ed., Ed. *Providence, R. I.*
Rhode Island State College, 1930;
Rhode Island College of Education, 1931
Willis, Josephine Melinda, B.Sc.,
B.Ed., Ed. *Providence, R. I.*
Rhode Island State College, 1930;
Rhode Island College of Education, 1931
Wilson, Blair Cochran, B.S., Ed. *Bath*
Maine, 1928
Winslow, Daphne, B.A., Fr. *Rockland*
Maine, 1927
Witherell, Julia Esther, B.S. in Ed., He. *Northampton, Mass.*
Framingham Normal, 1928

OTHER SUMMER SESSION STUDENTS, 1932

Adelman, Marcia Ada *Bangor*
Alpert, Minnie *Bangor*
Ashe, Elsie Bernice *West Gouldsboro*
Attenborough, Elizabeth Marie *Elizabeth, N. J.*

Bailey, Alice Rebecca	*Gloucester, Mass.*
Baldy, Frederic Carroll, B.A., LL.B. Minnesota, 1895, 1898	*Southborough, Mass.*
Ballantyne, Ruth Hall	*Lincoln*
Barbour, Charles Manson, Jr.	*Newport*
Barker, Byron Winfred, B.A. Clark, 1910	*Brewer*
Baron, Eva Clara	*Van Buren*
Bates, Thalia Agnes, B.S. Colby, 1929	*Guilford*
Baumann, Carl Spratt	*Bangor*
Baumann, Helen Elizabeth	*Bangor*
Beal, Beulah	*Jacksonville, Florida*
Beaton, Christine Ann	*Detroit, Mich.*
Bickell, Mary Ella	*New York, N. Y.*
Bickell, Suzanne Edith	*New York, N. Y.*
Blake, Elizabeth Mary	*New York, N. Y.*
Bonis, Anna Pauline	*Millinocket*
Boyle, Donald James	*North Berwick*
Breslin, Charles Francis, B.A. Columbia, 1927	*New York, N. Y.*
Brickett, Elsie Furbush, B.A., M.A. Bates, 1925; Maine, 1929	*Scranton, Pa.*
Briscoe, Eleanor Louise	*Orono*
Briscoe, Sidney Griscom	*Orono*
Brown, Ralph Lawrence	*Jonesport*
Brunton, William Ellsworth	*Harrisburg, Pa.*
Bunker, Clara Elizabeth	*Bangor*
Burns, George Elmer	*Mexico*
Buzzell, Marion Stephanie, B.A., M.A. Maine, 1914, 1915	*Old Town*
Calder, Ronald Burns	*Calais*
Campbell, Janet Roy	*Marlboro, Mass.*
Chamberlain, Geneva Frances	*Houlton*
Childs, Albert Harold	*Pittsfield, Mass.*
Clark, Bessie Stanley, B.S., M.A. Teachers College, Columbia, 1927, 1931	*Southwest Harbor*
Clarke, Elliott Mason, Jr.	*Central Falls, R. I.*
Claxton, Margaret Virginia	*Washington, D. C.*
Clear, Gertrude	*New York, N. Y.*

Cogswell, Vaughan Herbert	*Fort Fairfield*
Cohen, Nathan Arthur	*Bangor*
Cole, Charlotte	*Biddeford*
Colson, Vernita Gertrude	*Stockton Springs*
Connors, James Vincent	*Livermore Falls*
Cooper, Anne Cunningham	*Belfast*
Covell, Mildred Rebecca	*Orono*
Cox, Elsie Pauline	*Skowhegan*
Crandall, Ruth Russell	*Bangor*
Crane, Frederick Black	*Afton, N. Y.*
Crosscup, L. Lillian	*West Simsbury, Conn.*
Crowley, Patrick Joseph, B.S. College of City of New York, 1930	*Brooklyn, N. Y.*
Croxford, Paul Marks	*North Penobscot*
Culver, Lola Murch	*Jacksonville, Florida*
Cyr, Anne Marie	*Fort Kent*
Dame, George Francis	*Lakeport, N. H.*
Damon, Pearl Rebecca	*Stetson*
Darroch, William Clifton	*Monticello*
Davis, Margaret	*Arlington, N. J.*
Deimel, Dorothea	*Liberty*
Dekin, Albert Arch, B.S. Maine, 1932	*Milford*
Delano, Audrey Emma	*Medford Center*
Devereaux, Erma Mary	*Brooklin*
Dick, Kathryn Marion	*Gardiner*
Dinsmore, Frances Louise	*Milford*
Doe, Harold Oliver	*Bangor*
Doonan, Edward James, B.S. Yale, 1932	*Woonsocket, R. I.*
Drisko, Frank Eugene	*Harrington*
Du Bourdieu, Marion, B.A. Bates, 1919	*Bangor*
Dunbar, Roger Prince	*Machias*
Eaton, Dorothy Leonora	*Rockland*
Edwards, Walter Emerson, Jr.	*Bangor*
Elsemore, Franklin Fenno	*Grand Lake Stream*
Emple, Hyman William	*Bangor*
Epstein, Catherine Anne	*Bangor*

Epstein, Nathan, B.A. Maine, 1931	*Bangor*
Evans, Edith Roberts	*Gardiner*
Farris, William Meloy	*Suffield, Conn.*
Ferris, Dorothy Norma	*Belleville, N. J.*
Fisher, Clayton Donald	*Orono*
Fisher, Phyllis Marjorie	*Fort Fairfield*
Freiday, Marjorie Anne	*Bloomfield, N. J.*
Froehlich, Emma	*Detroit, Mich.*
Froehlich, Laura	*Detroit, Mich.*
Fulmer, Edna Marie	*Frederick, Md.*
Gale, Nellie Isabella	*Bangor*
Gardner, Angus John, B.S. in Commerce Northwestern, 1932	*South Bend, Ind.*
Garland, Cecil Gladstone, B.A., M.A. Maine, 1924; Brown, 1926	*Bangor*
Grant, Edna Louise	*Hampden Highlands*
Grant, Ernest Howard, B.A. Maine, 1927	*Washburn*
Gray, Lester Colby	*North Castine*
Greaves, Margaret Putnam	*Sherman Mills*
Gregory, Philip Orson	*Boothbay Harbor*
Griffin, William Frank	*Levant*
Groesbeek, Genevieve	*Hartford, Conn.*
Guild, Mary Andrews	*Fort Fairfield*
Guptill, Orville Jewett, Jr.	*Bar Harbor*
Gustin, Dorothy Ida	*Bangor*
Hallowell, Philip Malcolm	*Dennysville*
Hancock, Florence J.	*Winter Harbor*
Hanscom, Marguerite Ina	*Bath*
Hanscom, William Asa, B.S. Maine, 1927	*Orono*
Havens, Olive Kenyon	*Waldwick, N. J.*
Heald, Gladys Laura	*Portland*
Heidekorn, Ann	*Newark, N. J.*
Higgins, Helen Almina	*Wellesley, Mass.*
Highlands, Matthew Edward, B.A. Maine, 1928	*North Berwick*

Hinckley, Mildred Chase	*Blue Hill*
Hoar, Thelma Manzella	*Brunswick, Md.*
Hodgdon, Winslow Randolph	*Bellows Falls, Vt.*
Hoffman, Nicholas Fulmer, Jr.	*Philadelphia, Pa.*
Holmes, Grace Ware, B.A.	*Washington, D. C.*
George Washington University, 1928	
Hooker, Russell Houghton	*Baltimore, Md.*
Horsey, Mary Frances	*Hyattsville, Md.*
Howe, Norman Ingwall	*Dryden, Ontario*
Humphrey, Florence Gertrude	*Augusta*
Hurd, Marguerite Littlefield	*Orono*
Hutchinson, Mabel Sadye	*Old Town*
Ingalls, Hollis Page	*Machias*
Inman, Laura Helen	*Orono*
James, Pansy Mae	*Princeton*
Jardine, Autice Winifred	*Washburn*
Johnson, Lorin Baker	*Attleboro, Mass.*
Jones, Clara Kingsbury	*Putnam, Conn.*
Jones, Clyde Percival	*Norridgewock*
Jones, James Earle	*Putnam, Conn.*
Jordan, Ralph Leo	*Bangor*
Kane, May Agnes	*Frankfort*
Keith, Philip Edward	*Charleston*
Kemball, Dorothy Jean, B.A.	*Washington, D. C.*
George Washington University, 1928	
Keyes, Carolyn Hill	*West Pembroke*
Keyes, Jeannette Esther	*West Pembroke*
Kingman, Louise Pendell	*South Hanover, Mass.*
Kingsbury, Wilma Bowden	*Merrimac, Mass.*
Kittredge, Beatrice Ingalls, B.A.	*McKinley*
Bates, 1927	
Kittredge, Evelyn	*McKinley*
Kittredge, Melvin Benjamin	*Milo*
Klaman, Louis	*Boston, Mass.*
Knouff, Raymond Otto	*Waterville*
LaFlamme, Kenneth Joseph, B.S.	*Great Works*
Boston University, 1931	
Lagden, Charles Edward	*Cornwall, Ontario*

Lake, Mildred Leone	*Lubec*
Lamoreau, Hazel Etta Katherine	*Easton*
Lancaster, Margaret Evelyn	*Newport*
Lantz, Ferne Everett	*Brewer*
LaPointe, Frances Emily	*Orono*
LaPointe, William Arthur	*Livermore Falls*
Leighton, Melvin Theodore	*Dover-Foxcroft*
Libby, Herbert Morton	*Hodgdon*
Libby, Howard Isaac, Jr.	*Burnham*
Linscott, Edward Lyon	*Blue Hill*
Long, Frederick Ludwig	*Orono*
Looke, Nancy Jane	*Addison*
Lowell, Johnson Lombard, B.A. Maine, 1932	*Lee*
Lynch, Elizabeth Esther	*Lawrence, Mass.*
Lynch, Pauline	*Brewer*
MacDougall, Mary Blanche	*Bangor*
MacLauchlan, Harold Edwyn	*Van Buren*
Macfarlane, Neil Colin	*Cornwall, Ontario*
Malcolm, Warren Stuart	*Augusta*
Mann, Bernard Jerome	*Bangor*
Mann, Lawrence Augustine	*Bangor*
Mayo, Inez Daphne	*Brewer*
McEachern, Joseph Earl	*Greenville Junction*
Mead, Elizabeth Genevieve	*Bangor*
Merrill, Ena Ernestine	*Dover-Foxcroft*
Merrill, Ernestine Louise	*Orono*
Monaghan, Herbert Francis	*Bangor*
Moore, Janice Rachel	*Bangor*
Morgan, Jeannette Maria	*West Pembroke*
Morrison, George Ira	*Harrington*
Morrison, Hilda Broacher	*Robbinston*
Morse, Eunice Tolman	*Thomaston*
Motz, Doris Kelley	*Mt. Desert*
Motz, Rolf Brown	*Mt. Desert*
Murphy, Elizabeth Florence, B.A. Maine, 1930	*Bangor*
Nichols, Margaret Crawford	*Audubon, N. J.*
Nichols, Ruth Madeline	*Fort Fairfield*
Norris, Grace Elizabeth	*Haddon Heights, N. J.*

Ober, Marcia Flagg	*Northeast Harbor*
Osgood, Helen Berneice	*Orono*
O'Sullivan, William Bernard, B.A. Holy Cross, 1931	*Lewiston*
Ouellet, Catherine	*Fort Kent*
Overlock, Elliott Burnell	*Washington*
Owers, Charlotte Mabelle, B.A. Wheaton, 1929	*Manchester, Conn.*
Packard, Hilda Maria	*Skowhegan*
Packard, Marian Elizabeth	*Melrose Highlands, Mass.*
Page, Evelyn McPheters	*Burlington*
Paquin, Leon John	*Waterville*
Partridge, George Almond	*Ellsworth*
Paul, Bertha Lavina	*Skowhegan*
Peabody, Arnold Samuel	*Houlton*
Peach, Ann White	*Mitchellville, Md.*
Pease, Philip Lamont, Jr.	*Denver, Colorado*
Perkins, Gerda Redderborg	*East Corinth*
Perkins, Raymond Everett	*Castine*
Perry, Valeria Elizabeth	*Bangor*
Peterson, Mildred Pearl	*Saugus, Mass.*
Phelps, Frank Wright, Jr., B.A. Bowdoin, 1930	*Old Town*
Plummer, Evelyn Marie	*Head Tide*
Powers, Lillian Elsie	*East Millinocket*
Quigley, Frederick James	*Dexter*
Quimby, Maynard Ward	*Corinna*
Rafford, Ervin Linwood	*Ashland*
Reed, Edmund Blanchard, Jr.	*McKinley*
Rees, June Williams	*Orono*
Reynolds, Frances Dunton	*Bangor*
Richard, Albert David, Jr.	*Columbia Falls*
Ricker, Ellery Tuttle	*Bangor*
Ricker, Francis Galarneaux	*Milford*
Ringdahl, Betsy Evelyn, B.A. Colby, 1928	*New Sweden*
Ritzman, Mabel	*Bethel, Conn.*
Roberts, Fred Barker	*Whitewater, Wis.*

Robertshaw, Gilbert Turner	*Union Village, R. I.*
Robinson, Genevieve Helen	*Bangor*
Robinson, Glenn Meredith	*Bangor*
Robinson, Helen Alta	*Bangor*
Robinson, Orett Forest, B.S. in Ed. Boston University, 1928	*Thomaston*
Rogers, Lois	*Red Bank, N. J.*
Rosen, Abraham Everett	*Bangor*
Rowe, Florice Ames	*Norridgewock*
Rubin, Milton Leonard	*Madawaska*
Ryan, Marian Helena	*Glens Falls, N. Y.*
Ryder, Elizabeth Herr, B.A., M.A. Pennsylvania State, 1928; Columbia, 1929	*Shippensburg, Pa.*
Savage, Richard Manchester	*Northeast Harbor*
Sawyer, Barbara	*Greene*
Sawyer, Elizabeth Louise, B.A. Maine, 1927	*Bangor*
Scott, Mary Ellen	*Ellsworth*
Searles, Marian Edith	*New Bedford, Mass.*
Sharpe, Mildred Bessie	*Fredericton, N. B.*
Sherman, Ivan Cecil, B.A. Maine, 1932	*Union*
Silsby, Edward Homer	*Bangor*
Sleeper, Lora Gove	*Sherman Mills*
Smeaton, Edna Marion, B.S. Columbia, 1914	*Mount Vernon, N. Y.*
Smith, Dorothy, B.S. Simmons, 1921	*Bangor*
Smith, Odber Dell	*Machias*
Snow, Aubrey Hamilton	*Atkinson*
Spaulding, Albert Alonzo	*Caribou*
Spruce, Helen Carmelita	*Old Town*
Stairs, Erma Mae	*Washburn*
Steenstra, Edward Fitzgerald	*Westbrook, Conn.*
Stover, Mabel Frances	*Rockland*
Sylvester, Margaret Edna	*Etna*
Tapley, Alice Elizabeth	*South Paris*
Tarbell, Eaton Weatherbee	*Bangor*
Tarbell, Gridley Weatherbee	*Bangor*

Taylor, Letha Lillian	*Rumford*
Thomas, Arthur James	*Brewer*
Thomas, Everett Randall	*Rome, N. Y.*
Thompson, Alice Josephine	*Bangor*
Thompson, Hoyt Gillum	*Thomaston*
Tiger, Rosalind	*Brooklyn, N. Y.*
Tomlinson, Beulah Ida	*Rangeley*
Trafford, Mary Collins	*Bangor*
Trundy, Alice Nettie	*Searsport*
Wallace, Dorothy Alice	*Stamford, Conn.*
Warren, L. Evelyn	*Machiasport*
Waskowitz, Rose	*Brooklyn, N. Y.*
Weaver, George Randolph	*Bangor*
White, Nathan William	*Presque Isle*
White, Stephen Francis	*Biddeford*
Wilbur, Emery Abbott	*Cleveland, Ohio*
Willey, Louise Carleton	*Portland*
Wilson, Dorothy May	*Fredericton, N. B.*
Wood, Claude Allen	*Plattsburg, N. Y.*
Wood, Marshall Kemball	*Washington, D. C.*
Worthen, Jennie Ingraham	*East Corinth*
Wright, Helen Bernice	*Bangor*
Young, Ruby Evelyn	*Old Town*
Young, Virginia Florence	*Newton Highlands, Mass.*
Zeitman, Simon Patrick	*Portland*

At Marine Biological Station at East Lamoine

Davis, Arnold Eugene	*Jonesboro*
Edgerton, Ruth	*Croton-on-Hudson, N. Y.*
Evans, Francis Gaynor, B.A., M.A. Coe, 1931; Columbia, 1932	*Cedar Rapids, Iowa*
Forster, Margaret	*Boston, Mass.*
Fry, William Willcox, B.A. Amherst, 1931	*St. Louis, Mo.*
Gilman, Stanwood Cushing	*Bath*
Hamilton, Dorothy	*Mt. Washington, Mass.*
Nivison, Helen Thom	*Winslow*

Nixon, Elizabeth Frances	*Barnegat City, N. J.*
Packard, Elinor Wing	*Brockton, Mass.*
Readio, Marian Adella	*Florence, Mass.*
Shicker, George Jacques	*New York, N. Y.*
Stillman, Jane	*New York, N. Y.*
Thompson, Emily Dennison	*Bangor*

General Summary

1932-1933

FACULTY

President	1
Deans and Directors	11
Professors	45
Associate Professors	23
Assistant Professors	32
Instructors	44
Critic Teachers	8
Graduate Fellows and Scholars	14
Assistants	11
Agricultural Experiment Station Staff	30
Agricultural Extension Service Staff	52
Total	271

By Divisions

College of Agriculture	40
College of Arts and Sciences	71
College of Technology	41
School of Education	12
Agricultural Experiment Station	31
Agricultural Extension Service	53
Officers common to all colleges	23
Total	271

STUDENTS

1932-1933

	Total	Men	Women
Graduate Students	76	44	32
Seniors	353	240	113

Juniors	341	245	96
Sophomores	375	286	89
Freshmen	440	332	108
Specials	35	25	10
Upperclass students conditioned for admission	19	19	—
Two-Year Course in Agriculture	9	9	—
	1648	1200	448
Summer Session	402	177	225
Grand Total (omitting duplicates in Summer Session)	2003	1354	649

CLASSIFICATION BY COLLEGES

Graduate Study	76	44	32
College of Agriculture	359	227	132
College of Arts and Sciences	635	378	257
College of Technology	528	528	—
School of Education	50	23	27
	1648	1200	448

CANDIDATES FOR DEGREES

Graduate Study	63	35	28
College of Agriculture	355	224	131
College of Arts and Sciences	611	363	248
College of Technology	522	522	—
School of Education	49	22	27
	1600	1166	434

CLASSIFICATION BY RESIDENCE

Maine, by counties:	
Androscoggin	54
Aroostook	116
Cumberland	197
Franklin	22

Hancock	94		
Kennebec	93		
Knox	55		
Lincoln	22		
Oxford	55		
Penobscot	571		
Piscataquis	54		
Sagadahoc	28		
Somerset	53		
Waldo	56		
Washington	69		
York	67		
Maine		1606	
Massachusetts		191	
New York		52	
Connecticut		49	
New Jersey		27	
Pennsylvania		12	
Rhode Island		12	
New Hampshire		9	
Maryland		6	
District of Columbia		5	
Vermont		5	
Florida		3	
Ohio		3	
Michigan		3	
Wisconsin		3	
Delaware		2	
Indiana		2	
Colorado		1	
Iowa		1	
Missouri		1	
Texas		1	
Scotland		1	
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