1903

Catalogue of the University of Maine, 1903-1904

University of Maine

Follow this and additional works at: http://digitalcommons.library.umaine.edu/univ_publications

Part of the Higher Education Commons, and the History Commons

Repository Citation
http://digitalcommons.library.umaine.edu/univ_publications/72

This Monograph is brought to you for free and open access by the University of Maine Publications at DigitalCommons@UMaine. It has been accepted for inclusion in Early University of Maine Publications by an authorized administrator of DigitalCommons@UMaine.
THE UNIVERSITY OF MAINE CAMPUS

STILLWATER RIV
CATALOGUE

OF THE

University of Maine

1903-1904

ORONO, MAINE

AUGUSTA, MAINE
KENNEBEC JOURNAL PRINT
1903
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calendar,</td>
<td>6</td>
</tr>
<tr>
<td>The Board of Trustees,</td>
<td>9</td>
</tr>
<tr>
<td>The Advisory Board for the College of Law</td>
<td>9</td>
</tr>
<tr>
<td>The Experiment Station Council,</td>
<td>10</td>
</tr>
<tr>
<td>Alumni Associations,</td>
<td>11</td>
</tr>
<tr>
<td>The Faculty and other Officers,</td>
<td>12</td>
</tr>
<tr>
<td>Standing Committees of the Faculty</td>
<td>16</td>
</tr>
<tr>
<td>Establishment of the University</td>
<td>18</td>
</tr>
<tr>
<td>Endowment and Income,</td>
<td>19</td>
</tr>
<tr>
<td>Location,</td>
<td>20</td>
</tr>
<tr>
<td>Buildings and their Equipment,</td>
<td>20</td>
</tr>
<tr>
<td>Library,</td>
<td>25</td>
</tr>
<tr>
<td>Museum and Herbarium,</td>
<td>27</td>
</tr>
<tr>
<td>Organizations,</td>
<td>28</td>
</tr>
<tr>
<td>University Publications,</td>
<td>29</td>
</tr>
<tr>
<td>Military Instruction,</td>
<td>30</td>
</tr>
<tr>
<td>Physical Training,</td>
<td>31</td>
</tr>
<tr>
<td>Public Worship,</td>
<td>32</td>
</tr>
<tr>
<td>General Regulations,</td>
<td>32</td>
</tr>
<tr>
<td>Scholarship Honors,</td>
<td>33</td>
</tr>
<tr>
<td>Degrees,</td>
<td>34</td>
</tr>
<tr>
<td>Student Expenses,</td>
<td>35</td>
</tr>
<tr>
<td>Loans,</td>
<td>38</td>
</tr>
<tr>
<td>Scholarships and Prizes,</td>
<td>39</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Admission</td>
<td>40</td>
</tr>
<tr>
<td>Entrance Examinations</td>
<td>41</td>
</tr>
<tr>
<td>Entrance Requirements</td>
<td>41</td>
</tr>
<tr>
<td>Entrance Requirements in Detail</td>
<td>44</td>
</tr>
<tr>
<td>Admission by Certificate</td>
<td>48</td>
</tr>
<tr>
<td>Requirements for Graduation</td>
<td>49</td>
</tr>
<tr>
<td>The Departments of Instruction:</td>
<td></td>
</tr>
<tr>
<td>Greek</td>
<td>51</td>
</tr>
<tr>
<td>Latin</td>
<td>54</td>
</tr>
<tr>
<td>Romance Languages</td>
<td>57</td>
</tr>
<tr>
<td>German</td>
<td>58</td>
</tr>
<tr>
<td>English</td>
<td>60</td>
</tr>
<tr>
<td>Philosophy</td>
<td>63</td>
</tr>
<tr>
<td>Civics</td>
<td>65</td>
</tr>
<tr>
<td>History</td>
<td>66</td>
</tr>
<tr>
<td>Mathematics and Astronomy</td>
<td>67</td>
</tr>
<tr>
<td>Physics</td>
<td>70</td>
</tr>
<tr>
<td>Chemistry</td>
<td>72</td>
</tr>
<tr>
<td>Biology</td>
<td>76</td>
</tr>
<tr>
<td>Agriculture</td>
<td>79</td>
</tr>
<tr>
<td>Animal Industry</td>
<td>80</td>
</tr>
<tr>
<td>Horticulture</td>
<td>82</td>
</tr>
<tr>
<td>Forestry</td>
<td>83</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>85</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>88</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>90</td>
</tr>
<tr>
<td>Drawing</td>
<td>93</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>94</td>
</tr>
<tr>
<td>Military Science and Tactics</td>
<td>95</td>
</tr>
<tr>
<td>Organization of the University:</td>
<td></td>
</tr>
<tr>
<td>General Statement</td>
<td>97</td>
</tr>
<tr>
<td>The College of Liberal Arts:</td>
<td></td>
</tr>
<tr>
<td>The Classical Course</td>
<td>98</td>
</tr>
<tr>
<td>The Latin-Scientific Course</td>
<td>98</td>
</tr>
<tr>
<td>The Scientific Course</td>
<td>99</td>
</tr>
</tbody>
</table>
### The College of Agriculture:

<table>
<thead>
<tr>
<th>Course</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The College Courses</td>
<td>101</td>
</tr>
<tr>
<td>The Agricultural Course</td>
<td>101</td>
</tr>
<tr>
<td>The Horticultural Course</td>
<td>102</td>
</tr>
<tr>
<td>The Forestry Course</td>
<td>103</td>
</tr>
<tr>
<td>The Special Course in Agriculture and Horticulture</td>
<td>104</td>
</tr>
<tr>
<td>The Extension Courses</td>
<td>104</td>
</tr>
<tr>
<td>The Agricultural Experiment Station</td>
<td>106</td>
</tr>
</tbody>
</table>

### The College of Technology:

<table>
<thead>
<tr>
<th>Course</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Chemical Course</td>
<td>108</td>
</tr>
<tr>
<td>The Civil Engineering Course</td>
<td>110</td>
</tr>
<tr>
<td>The Mechanical Engineering Course</td>
<td>112</td>
</tr>
<tr>
<td>The Electrical Engineering Course</td>
<td>113</td>
</tr>
<tr>
<td>The Mining Engineering Course</td>
<td>114</td>
</tr>
</tbody>
</table>

### The College of Pharmacy:

<table>
<thead>
<tr>
<th>Course</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Pharmacy Course</td>
<td>115</td>
</tr>
<tr>
<td>The Short Course in Pharmacy</td>
<td>116</td>
</tr>
</tbody>
</table>

### The College of Law:

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Faculty</td>
<td>118</td>
</tr>
<tr>
<td>General Statement</td>
<td>119</td>
</tr>
<tr>
<td>Admission</td>
<td>119</td>
</tr>
<tr>
<td>Methods of Instruction</td>
<td>120</td>
</tr>
<tr>
<td>Course of Study</td>
<td>120</td>
</tr>
<tr>
<td>Expenses</td>
<td>120</td>
</tr>
<tr>
<td>Degrees</td>
<td>121</td>
</tr>
<tr>
<td>Courses of Instruction</td>
<td>122</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commencement</td>
<td>126</td>
</tr>
<tr>
<td>Certificates and Degrees</td>
<td>126</td>
</tr>
<tr>
<td>Appointments</td>
<td>130</td>
</tr>
<tr>
<td>Catalogue of the Students</td>
<td>132</td>
</tr>
<tr>
<td>Index</td>
<td>149</td>
</tr>
</tbody>
</table>
CALENDAR

FALL TERM, 1903

September 14, Monday, Arrearage examinations begin.
September 15, Tuesday, Entrance examinations begin.
September 17, Thursday, Fall term begins.
November 24, Tuesday, Meeting of the Board of Trustees.
November 25, Wednesday, Thanksgiving recess begins, 12 M.
December 1, Tuesday, Thanksgiving recess ends, 7.45 A.M.
December 4, Friday, Sophomore prize declamations.
December 23, Wednesday, Christmas recess begins, 5.30 P. M.

January 1, Friday, Arrearage examinations begin

(Spring term studies).

January 4, Monday, Christmas recess ends, 7.45 A. M.
January 29, Friday, Fall term ends.

1904

SPRING TERM, 1904

February 1, Monday, Spring term begins.
March 30, Wednesday, Easter recess begins, 5.30 P. M.
April 4, Monday, Arrearage examinations begin

(Fall term studies).

April 6, Wednesday, Easter recess ends, 7.45 A. M.
June 4, Saturday, Junior exhibition.
UNIVERSITY OF MAINE

June 5, Sunday, Baccalaureate address.
June 6, Monday, Convocation.
June 6, Monday, Class day.
June 6, Monday, Reception by the President.
June 7, Tuesday, Meeting of the Board of Trustees.
June 7, Tuesday, Receptions by the fraternities.
June 8, Wednesday, Commencement.
June 8, Wednesday, Commencement dinner.
June 8, Wednesday, Meeting of the Alumni Association.
June 8, Wednesday, Commencement concert.
June 9, Thursday, Entrance examinations begin.

FALL TERM, 1904

September 19, Monday, Arrearage examinations begin.
September 20, Tuesday, Entrance examinations begin.
September 22, Thursday, Fall term begins.
November 22, Tuesday, Meeting of the Board of Trustees.
November 23, Wednesday, Thanksgiving recess begins, 12 M.
November 28, Monday, Thanksgiving recess ends, 7.45 A.M.
December 2, Friday, Sophomore prize declamations.
December 23, Friday, Christmas recess begins, 5.30 P. M.
December 30, Friday, Arrearage examinations begin
(Spring term studies).

1905

January 2, Monday, Christmas recess ends, 12 M.
February 3, Friday, Fall term ends.

SPRING TERM, 1905

February 6, Monday, Spring term begins.
June 14, Wednesday, Commencement.
CALENDAR OF THE COLLEGE OF LAW

1903
October 7, Wednesday, Fall term begins.
December 23, Wednesday, Fall term ends.

1904
January 6, Wednesday, Winter term begins.
March 16, Wednesday, Winter term ends.
March 23, Wednesday, Spring term begins.
June 8, Wednesday, Commencement.
October 5, Wednesday, Fall term begins.
December 21, Wednesday, Fall term ends.

1905
January 11, Wednesday, Winter term begins.
March 22, Wednesday, Winter term ends.
March 29, Wednesday, Spring term begins.
June 14, Wednesday, Commencement.
THE BOARD OF TRUSTEES

Hon. Henry Lord, President,
Hon. Elliott Wood,
Hon. Charles Levi Jones,
Hon. John Alfred Roberts, M. A.,
Hon. Edward Brackett Winslow,
Hon. Voranus Lathrop Coffin,
Hon. Albert Joseph Durgin,
Edwin James Haskell, B. S.,

Bangor.
Winthrop.
Corinna.
Norway.
Portland.
Harrington.
Orono.
Westbrook.

EXECUTIVE COMMITTEE
Trustees Lord and Winslow.

TREASURER

Hon. Isaiah Kidder Stetson, Ph. B.,
Bangor.

ADVISORY BOARD FOR THE COLLEGE OF LAW

Hon. Charles Hamlin, M. A., President,
Hon. Henry Bradstreet Cleave,
Hon. Albert Moore Spear,
Hon. William Thomas Haines, LL. D.,
Hon. Herbert Milton Heath, M. A.,
Hon. Andrew Peters Wiswell, LL. D.,
Bangor.
Portland.
Gardiner.
Waterville.
Augusta.
Ellsworth.

Dean William Emanuel Walz, M. A., LL. B., Secretary,
Bangor.
THE EXPERIMENT STATION COUNCIL

President George Emory Fellows, Ph. D., LL. D., President
Director Charles Dayton Woods, B. S., Secretary
John Alfred Roberts, M. A., Norway,
Charles Levi Jones, Corinna,
Albert Joseph Durgin, Orono,
Augustus Wm. Gilman, Foxcroft, Commissioner of Agriculture
Eugene Harvey Libby, Auburn, State Grange
Charles S. Pope, Manchester, State Pomological Society
James Monroe Bartlett, M. S., Members
Lucius Herbert Merrill, B. S., of the
Fremont Lincoln Russell, V. S., Station Staff
Welton Marks Munson, Ph. D.,
Gilbert Mottier Gowell, M. S.,
ALUMNI ASSOCIATIONS

THE GENERAL ASSOCIATION
President, Louis C. Southard, 73 Tremont St., Boston.
Recording Secretary, Ora W. Knight, 84 Forest Ave., Bangor.
Corresponding Secretary, Ralph K. Jones, Orono.
Treasurer, Albert H. Brown, Oldtown.
Necrologist, James N. Hart, Orono.

THE WEST MAINE ASSOCIATION
President, R. W. Eaton, Brunswick.
Secretary and Treasurer, A. C. Westcott, 7 Exchange St.,
Portland.

THE NORTH MAINE ASSOCIATION
President, Harvey B. Thayer, Presque Isle.
Secretary, N. H. Martin, Fort Fairfield.

THE BOSTON ASSOCIATION
President, Heywood S. French, 683 Atlantic Ave.
Secretary, J. W. Owen, 101 Milk St.

THE NEW YORK ASSOCIATION
President, C. H. Nealley, 111 West 68th St.
Secretary, Chas. G. Cushman, 30 Broad St.

THE WASHINGTON (D. C.) ASSOCIATION
President, F. Lamson-Scribner, Dep't of Agriculture.
Secretary, George P. Merrill, National Museum.

THE PENOBSCOT VALLEY ASSOCIATION
President, E. H. Kelley, Bangor.
Secretary, C. A. Dillingham, Bangor.

THE WESTERN ASSOCIATION
President, Oliver C. Farrington, Field Columbian Museum,
Chicago, Ill.
Secretary, Ray H. Manson, Kellogg Switchboard and Supply Co.,
Chicago, Ill.
THE FACULTY AND OTHER OFFICERS

George Emory Fellows, Ph. D., L. H. D., LL. D.,……. Campus. President, and Professor of History.

Merritt Caldwell Fernald, Ph. D., LL. D., 12 Bennoch Street. Professor of Philosophy.

Alfred Bellamy Aubert, M. S.,……………36 Pine Street. Professor of Chemistry.

Allen Ellington Rogers, M. A.,……. College Street. Professor of Civics and Constitutional Law.

James Monroe Bartlett, M. S.,……. College Street. Chemist in the Experiment Station.

Lucius Herbert Merrill, B. S.,……. 14 Bennoch Street. Professor of Biological Chemistry, and Chemist in the Experiment Station.

James Norris Hart, C. E., M. S.,…………. Campus. Professor of Mathematics and Astronomy, and Dean.

Fremont Lincoln Russell, B. S., V. S.,……. 85 Main Street. Professor of Biology, and Veterinarian of the Experiment Station.

Welton Marks Munson, Ph. D.,……. 76 Main Street. Professor of Horticulture, and Horticulturist of the Experiment Station.

Horace Melvyn Estabrooke, M. A.,……. 80 Main Street. Professor of English.

James Stacy Stevens, M. S.,…………. Main Street. Professor of Physics.

Gilbert Mottier Gowell, M. S.,…………. Campus. Professor of Animal Industry.
CHARLES DAYTON WOODS, B. S., 55 Main Street. Director of the Experiment Station, and Professor of Agricultural Chemistry.

HOWARD SCOTT WEBB, M. E., E. E., 32 North Main Street. Professor of Electrical Engineering.

KARL POMEROY HARRINGTON, M. A., Campus. Professor of Latin.

JOHN HOMER HUDDILSTON, PH. D., 59 Main Street. Professor of Greek.

WILLIAM EMANUEL WALZ, M. A., LL. B., 183 Cedar St., Bangor. Professor of Law, and Dean of the College of Law.

GILMAN ARTHUR DREW, PH. D., College Street. Professor of Biology.

WILBUR FISK JACKMAN, B. S., PH. C., 36 Pine Street. Professor of Pharmacy.

RALPH KNEELAND JONES, B. S., 26 Bennoch Street. Librarian.

ORLANDO FAULKLAND LEWIS, PH. D., Main Street. Professor of Germanic Languages.

PERLEY F. WALKER, M. M. E., 57 Main Street. Professor of Mechanical Engineering.

CHARLES J. SYMONDS, CAPTAIN 12th U. S. CAVALRY, Park St. Professor of Military Science.

SAMUEL NEWTON SPRING, M. F., 39 Mill Street. Professor of Forestry.

ERNST GUSTAVUS LORENZEN, PH. B., LL. B., J. U. D., Bangor. Professor of Law.

WILLIAM DANIEL HURD, B. S., 2 Middle Street. Professor of Agriculture.

JACOB BERNARD SEGALL, PH. D., 61 Mill Street. Professor of Romance Languages.

HAROLD SHERBURN BOARDMAN, C. E., Main Street. Associate Professor of Civil Engineering.

CAROLINE COLVIN, PH. D., Campus. Assistant Professor of History.
EDGAR MYRICK SIMPSON, B. A.,..............5 Broadway, Bangor.
Instructor in Real Property and Corporations.

GUY ANDREW THOMPSON, M. A.,..................Mrs. Graves.
Instructor in English.

JOHN EMERSON BURBANK, M. A.,..............2 Forest Street.
Instructor in Physics.

ARCHER LEWIS GROVER, B. S.,..................44 Main Street.
Physical Director, and Instructor in Drawing.

EUGENE CLEMENT DONWORTH, LL. B.,........7 South Street, Bangor.
Instructor in Contracts.

BERTRAM LEIGH FLETCHER, LL. B.,........28 Second Street, Bangor.
Instructor in Agency.

GEORGE HENRY WORSTER.......................234 Center Street, Bangor.
Instructor in Insurance.

STANLEY JOHN STEWARD, M. E.,..............3 Middle Street.
Instructor in Mechanical Engineering.

THOMAS BUCK, B. S.,............................88 Main Street.
Instructor in Mathematics.

WALTER DAVIS LAMBERT, M. A.,..............Mrs. Graves.
Instructor in Mathematics.

HENRY MARTIN SHUTE, M. A.,..................44 Main Street.
Instructor in Modern Languages.

HORACE PARLIN HAMLIN, B. S.,..............Main Street.
Instructor in Civil Engineering.

MARSHALL BAXTER CUMMINGS, B. S.,........Mrs. Graves.
Instructor in Botany, and Assistant Horticulturist.

GRANT TRAIN DAVIS, B. A.,....................61 Main Street.
Instructor in Chemistry.

JOHN BYRON REED, B. A.,.....................61 Main Street.
Instructor in Chemistry.

FOREST JOHN MARTIN, LL. B.,........105 Cumberland Street, Bangor.
Resident Lecturer on Common Law Pleading
and Maine Practice.

HUGO CLARK, C. E.,............................5 Broadway, Bangor.
Resident Lecturer on Equity Pleading and
Practice.
CHARLES HAMLIN, M. A., ........................25 Fifth Street, Bangor.
Lecturer on Bankruptcy and Federal Procedure.

LUCILIUS ALONZO EMEY, LL. D., ........................Ellsworth.
Lecturer on Roman Law and Probate Law.

ANDREW PETERS WISWELL, LL. D., ........................Ellsworth.
Lecturer on Evidence.

LOUIS CARVER SOUTHARD, M. S., .........................Boston.
Lecturer on Medico-Legal Relations.

ARTHUR WILLIAMS COLE, B. S., ........................37 Mill Street.
Instructor in Shop Work.

NEWELL WALTER EDSON, B. A., .......................Mrs. Graves.
Instructor in English.

VICTOR MANUEL ARANA, M. E. IN E. E., ................University Hall.
Instructor in Electrical Engineering.

ARTHUR CRAWFORD JEWETT, B. S., ..................5 Broadway, Bangor.
Instructor in Mechanical Engineering.

CHARLES VY HOLMAN, LL. B., .......................88 Broadway, Bangor.
Lecturer on Mining Law.

RALPH MELVIN CONNER, B. S., .....................University Hall.
Tutor in Mathematics.

EVERETT HARLOW BOWEN, B. A., ....................2 Bennoch Street.
Tutor in Physics.

PAUL DYER SIMPSON, B. S., .........................University Hall.
Tutor in Civil Engineering.

HENRY MELVILLE SOPER, B. S., .....................Oak Hall Annex.
Assistant in Chemistry.

HERMAN HERBERT HANSON, B. S., ..................61 Main Street.
Assistant Chemist in the Experiment Station.

EVERETT WILLARD DAVEE, ............................Bridge Street.
Assistant in Shop Work.

EDITH MARION PATCH, B. S., .........................Campus.
Assistant in Entomology in the Experiment Station.

SANFORD CROSBY DINSMORE, B. S., ................Oak Hall Annex.
Assistant Chemist in the Experiment Station.

GENEVA RING HAMILTON, ............................14 Myrtle Street.
Assistant Librarian.

ELIZABETH ABBOTT BALENTINE, ........................Campus.
Secretary to the President, and Secretary of the Faculty.
STANDING COMMITTEES OF THE FACULTY

Admission to Examinations
Professor Fernald, Professor Webb, Professor Drew.

Approved Schools
Professor Estabrooke, Professor Fernald, Professor Harrington (Secretary), Professor Hart, Professor Huddilton, Professor Lewis, Professor Stevens.

Athletics
Professor Jones, Professor Lewis, Mr. Grover.

Catalogue
Professor Harrington (Editor), Professor Walker, Professor Hurd.

Course of Study
Professor Drew, Professor Hart, Professor Lewis, Professor Walker.

Delinquents
Professor Webb, Professor Boardman, Professor Munson, Mr. Buck, Mr. Thompson.

Graduate Degrees
Professor Fernald, Professor Estabrooke, Professor Harrington (Secretary), Professor Munson, Professor Walker.

Health
Professor Rogers, Professor Jackman, Professor Russell, Professor Colvin, Mr. Grover.
Honors
Professor Stevens, Professor Huddilston, Professor Munson, Professor Drew.

Library
Professor Jones, Professor Estabrooke, Professor Walker, Professor Jackman.

Military
Professor Symmonds, Professor Woods, Professor Walker.

Musical Organizations
Professor Lewis, Professor Jones, Professor Spring.

Rules
Professor Woods, Professor Stevens, Professor Munson.

Student Advisers
For Freshmen in all courses: Dean Hart.
For all other students: the head of the department in which their major subject is taken.
By an act of Congress, approved July 2, 1862, it was provided that there should be granted to the States, from the public lands, "thirty thousand acres for each Senator and Representative in Congress," from the sale of which there should be established a perpetual fund, "the interest of which shall be inviolably appropriated by each State which may take and claim the benefit of this act, to the endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." The act forbade the use of any portion of the principal or interest of this fund for the purchase, erection, or maintenance of buildings and required each state taking the benefit of the provisions of the Act "to provide within five years not less than one college" to carry out the purposes of the Act.

Maine accepted this grant in 1863, and in 1865 constituted "a body politic and corporate, by the name of the Trustees of the State College of Agriculture and the Mechanic Arts." The Trustees were authorized to receive and hold donations, to select the professors and other officers of the college, to establish the conditions for admission, to lay out courses of study, to grant degrees, and to exercise other usual powers and privileges.

The Governor and Council were given the right "to examine into the affairs of the college, and the doings of the trustees, and to inspect all their records and accounts, and the buildings and premises occupied by the college."
It was provided that in addition to the studies especially required by the Act of Congress, the college should teach such other studies as its facilities would permit.

The Legislature of 1867 changed the name of the institution to "The University of Maine."

ENDOWMENT AND INCOME

The State of Maine received, under the Act of Congress above referred to, two hundred and ten thousand acres of public land, from which the University has realized an endowment fund of $118,300. This has been increased by a bequest of $100,000 from Abner Coburn of Skowhegan, who was for many years president of the Board of Trustees. The town of Orono contributed $8,000, and the town of Oldtown $3,000, for the purchase of the site on which the buildings stand. The State has appropriated about $350,000 for the material equipment.

Under an Act of Congress approved March 2, 1887, the University receives $15,000 annually for the maintenance of the department known as the Agricultural Experiment Station.

Under an Act of Congress approved August 30, 1890, the University receives $25,000 annually for its more complete endowment and maintenance.

Under an Act of the Legislature, approved March 20, 1897, the University receives $20,000 annually from the State for current expenses. Student fees and miscellaneous receipts complete the income.
LOCATION

The University has a beautiful and healthful location in the town of Orono, Penobscot county, half way between the villages of Orono and Stillwater, three miles from the city of Oldtown, and nine miles from the city of Bangor. The Stillwater river, a branch of the Penobscot, flows in front of the buildings, forming the western boundary of the campus. Orono is upon the Maine Central Railroad and is easy of access from all parts of the State.

The Bangor, Orono and Oldtown Electric Railroad runs through the University grounds. Visitors will find it convenient to take the electric cars at Bangor, Veazie, or Oldtown, as the electric road does not run to the railroad station at Orono. Baggage may be sent to Orono by the Maine Central Railroad.

The College of Law is located in the Exchange Building, Bangor, at the corner of Exchange and State streets.

THE BUILDINGS AND THEIR EQUIPMENTS

WINGATE HALL.—One of the most conspicuous buildings on the campus, Wingate Hall, named in honor of William P. Wingate of Bangor, long an honored member of the board of trustees, is a three-story brick structure, rectangular in form, with a handsome clock tower. It was erected for the departments of civil and mechanical engineering, but is at present occupied in part by other departments. On the ground floor are two large designing rooms, recitation rooms, instrument rooms, and the
offices of the professors in the engineering departments. On the second floor are the offices and recitation rooms of the professors of physics, Greek, and Latin, the physical laboratories, and the apparatus room. On the third floor are large, well lighted drawing rooms. In the basement are the dynamo laboratory and the testing room of the department of civil engineering. The testing room contains a Richle testing machine of 60,000 pounds capacity, cement testing machine, etc. The dynamo laboratory is provided with six direct-current dynamos, two alternating-current dynamos, a rotary converter, transformer, ammeters, voltmeters, wattmeters, rheostats, switches, etc., affording accommodations for fifteen students in a section.

Oak Hall.—North of Wingate Hall is Oak Hall, a substantial four-story brick building used as a dormitory for men, named in honor of Lyndon Oak of Garland, for many years a useful member of the board of trustees. It contains forty-nine study rooms for students, and is supplied with bath rooms. It is heated by steam, supplied with water, and lighted by electricity. It was remodeled in 1895. An annex added during the summer of 1903 furnishes accommodations for thirty students more.

University Hall.—This building, recently equipped as a dormitory and boarding house, is centrally located on Main Street, near the post office and churches, and on the electric car line which passes through the campus. It contains about twenty-five rooms, varying in size, and accommodates about forty students.

Fernald Hall.—This building, named in honor of Merritt C. Fernald, Ph. D., president of the University from 1879 to 1893, is a two-story brick building, situated south of Wingate Hall. It contains fifteen rooms devoted to the departments of chemistry and pharmacy. On the first floor are the quantitative and pharmaceutical laboratories, with offices and private laboratories for the professors of chemistry and pharmacy; upon the second floor are lecture rooms, the qualitative laboratory, the office and private laboratory of the instructor in qualitative analysis, a store room and a recitation room. Under the roof are arranged the photographic studio, laboratory, and dark rooms. In the basement is an assay laboratory, the laboratory for beginners, and store rooms. The department is well supplied with apparatus.
Coburn Hall.—Directly south of Fernald Hall is Coburn Hall, named in honor of Abner Coburn of Skowhegan, the chief benefactor of the University. It is a brick building, three stories in height. In the basement and on the first floor are located the reading rooms and the library, and the recitation room of the professor of English. On the second floor are the botanical and zoological laboratories, and recitation rooms for the department of biology, English, and modern languages. Over the library is the museum. The collections are large and constantly increasing. On the third floor are recitation rooms for the departments of civics and history, philosophy, and modern languages, the modern language seminary room, and the psychological laboratory.

Alumni Hall.—To the northeast of Coburn Hall stands Alumni Hall, erected in 1900. The front part contains on the ground floor the offices of the president, secretary, and cashier, a board room, two recitation rooms for the use of the military and mathematical departments, and the office of the professor of mathematics; the second floor contains the university chapel, with a large pipe organ in the choir gallery. In the basement under the drill hall are the offices of the military instructor and the physical director, the baseball cage, bowling alleys, lockers, lavatories, rooms for storage, etc. The dimensions of the drill hall and gymnasium are 100 by 62 feet. This room is encircled by a 9-foot running track suspended from the roof. As a gymnasium it is equipped with complete apparatus of the most approved kind.

The Observatory.—The astronomical observatory stands upon a slight elevation to the east of Coburn Hall. The equatorial room is equipped with an eight-inch refractor of the best modern construction, with finding circles, driving-clock, filar micrometer and other accessories. In the transit-room is a Repsold vertical circle of two-inch aperture. These instruments, together with sextants, sidereal chronometer, etc., furnish excellent facilities for instruction in both descriptive and practical astronomy.

The Machine Shop.—In the rear of Fernald Hall is the machine shop, a wooden building 125 feet long and two stories high, containing the foundry, forge shop, carpenter shop, machine
shop and tool room. The building is thoroughly equipped. An adjoining building, 30 by 71 feet, contains two boilers, of one hundred and fifty, and one hundred horse power, respectively, a fifty horse power Corliss engine, a fifteen horse power Otto gasoline engine, and the dynamos, which comprise the lighting plant. Students in the Electrical Engineering Course receive instruction in the care and running of this equipment.

Lord Hall.—The Legislature of 1903 appropriated the sum of $35,000 for the construction and equipment of a new building for the departments of mechanical and electrical engineering. This building, which is already in process of erection, will consist of a main part 82x56 feet in dimensions and two stories in height, and an ell 125x42 feet partly of two stories and partly of one story. It will contain three recitation rooms, a large drawing room, the shops, suitable laboratories, and offices for the professors and instructors in the two departments concerned. The increased space will permit also a decided increase in equipment.

The Experiment Station Building.—This is a two story brick building, 81x48 feet, standing south of Alumni Hall. The north wing contains the recitation rooms for horticulture and agriculture, the bacteriologial laboratories of the University, and the offices of the Professor of Agriculture. The remainder of the building is occupied by the Maine Agricultural Experiment Station and is arranged as follows:

On the ground floor are three large laboratories used in the analysis of foods, feeding stuffs and fertilizers; a reagent room; the office of the chemists; and the office and laboratory of the bacteriologist. The general office of the Station, the director's office, the mailing room and reading room, the agricultural museum, the entomological laboratory and the photographic dark room are on the second floor.

In the basement are rooms for the boiler, for the gas machine, for the grinding and preparation of samples, for the calorimeter, and for a kitchen used in the experiments upon the food of man, and rooms for the storage of fuel, chemicals and glassware. The large attic is used for the storage of samples and publications. With the exception of the thermometers and rain gauge the meteorological apparatus is in this building. The building
is heated by steam, supplied with gas and electricity, and is thoroughly equipped with apparatus for the work of agricultural investigation.

The Horticultural Building.—East of the Experiment Station is the Horticultural Building, consisting of a headhouse and three greenhouses. In the headhouse are the office of the professor of horticulture, a work room, a seed storage room, a photographing room, the janitor's room, and a room used for storage. The main greenhouse, 20 feet by 100 feet, is devoted to the use of the Experiment Station, and to the instruction of students. A second structure, 20 feet by 80 feet, running parallel to the main greenhouse, is divided, one-half being used for growing plants, and the remainder as a potting and storage room. The third greenhouse is designed for investigations in plant nutrition. In the south end of this house is the conservatory.

The Dairy Building.—The Dairy Building, 50 feet by 42 feet, contains a milk room, a butter room, a cheese room, a cold storage room, a cheese curing room, a lecture room, the office of the professor of animal industry, and a laboratory. It is supplied with all necessary appliances for teaching the most approved methods of handling milk, cream, butter and cheese. The building is heated with steam and supplied with hot and cold water. Power is furnished by a six horse power engine.

The Mt. Vernon House.—This is a wooden building, completed in 1898, to furnish dormitory accommodations for women. It is situated near the recitation and laboratory buildings, upon a site overlooking the campus and commanding a beautiful view of the river, villages, and mountains. It is two stories in height, built in the old colonial style, and consists of a long central portion and two wings. It contains a parlor, dining room, kitchen, bath room, and sixteen study rooms, each intended for two students. The rooms are large, well lighted, heated by a combined system of hot air and hot water, and provided with electric lights from the university plant. A special feature is the long hall on each floor, extending sixty-six feet upon the front of the building, and wide enough to serve as an assembly or study room. The building, and the students who live in it, are under the supervision of a competent matron.
THE FRATERNITY HOUSES.—Six of the student fraternities occupy club houses. Four of the houses are on the campus, and two in the village of Orono. They are large, well arranged houses, affording rooms for about twenty-five students each. Several of the fraternities maintain their own boarding establishments under the supervision of matrons.

THE ART MUSEUM.—The collection of casts, framed pictures, photographs, and engravings belonging to the University Guild occupies quarters in a frame building a little northeast of Win­gate Hall. Its main room for exhibition purposes measures 30x40 feet, and contains about three thousand reproductions of various works of art, chiefly of the renaissance period.

OTHER BUILDINGS.—In addition to the buildings already described, there are six others devoted to various purposes. Among these are the President’s house, the Commons or general boarding house, and three residences occupied by members of the faculty.

THE ATHLETIC FIELD.—Alumni Field, so called because funds required for its construction were contributed by the Alumni Association, is located at the northwestern extremity of the campus, about 1,200 feet from the Gymnasium. It contains a quarter-mile cinder track, with a 220 yards straightaway, and is graded and laid out for foot ball, base ball, and field athletics.

THE LIBRARY

The library is located in Coburn Hall. It contains over twenty-five thousand bound volumes and eight thousand pamphlets. Some fifteen hundred volumes of special value to the Experiment Station are kept in the Station building; and nearly three thousand law books, in the College of Law. Reference libraries in departmental rooms are maintained by those departments which require them.
Nearly half of the volumes in the library have been added within the last five years, the accessions having averaged more than twenty-five hundred annually during this period; the greater part of these have been acquired by purchase, and in large part have been selected by the heads of departments with particular reference to making the collection of the greatest working value. The time and manner of the selection and purchase of the books result in a particularly useful collection.

The library is classified according to the Dewey system, slightly modified; there is a card catalogue, author and subject; access to the shelves is entirely unrestricted. Students may borrow two volumes at a time, to be retained two weeks, when they may be renewed unless previously called for; special permission to borrow a larger number may be obtained, when necessary, upon application to the librarian; there is a fine of two cents a day for books kept overtime. Officers and alumni of the University may borrow any reasonable number of volumes without time limit, except that all books must be returned at least nine days before Commencement, and the return of any volume may be required at any time by the library committee. Other responsible persons may obtain the privileges of the library upon application to the librarian. The librarian and his assistants are glad to give advice and assistance at any time.

The library is a designated depository for the publications of the United States Congress, and also receives publications of different departments not included in the depository set. All the publications of the State of Maine are received. Over three hundred and fifty of the most important literary, scientific and technical periodicals, both American and foreign, are regularly received. The leading papers of Maine, together with a selected list of daily papers published in the large cities, are on file.

The library is open daily from 8 A. M. to 12 M., and from 1:30 to 5:30, and 7:00 to 9:30 P. M., Sundays and legal holidays excepted. On Sunday it is open from 2:00 to 5:00 P. M.
MUSEUM AND HERBARIUM

The museum is located in the wing of Coburn Hall. The mineral cabinet embraces a general collection of three hundred species of the more common minerals, a collection of economic minerals furnished by the National Museum, an educational series of rocks from the U. S. Geological Survey, and a collection of the more important fragmental, crystalline, and volcanic rocks.

There is a small collection of plant and animal fossils, a set of type exotic mammals, a number of the larger mammals of the State, and working collections of the lower group of both vertebrate and invertebrate animals.

The herbarium comprises the original collection of Maine plants of about 500 species; the new collection of Maine plants of 800 species; the Blake herbarium of 7,000 species, including phœnogams and cryptogams; Ellis and Everhard's North American Fungi, comprising thirty-five centuries; Halsted's Lichens of New England; Underwood's Hepaticæ; Cummings and Seymour's North American Lichens; Cook's Illustrative Fungi; Collins's Algae of the Maine Coast; a collection of illustrative cryptogams in boxes; Harvey's Weeds and Forage Plants of Maine, 300 species; Halsted's Weeds; a collection of grasses and forage plants of 400 species; a collection of United States woods prepared by the United States Department of Agriculture; a collection of seeds and fruits.
ORGANIZATIONS

FRATERNITIES.—The following fraternities are represented in the University: Φ Γ Δ, Β Θ Π, Κ Σ, Α Τ Ω, Φ Κ Σ, Σ Α Ε, Σ Χ, Δ Σ (for women); Γ Η Γ, Σ Β Π (in the College of Law.)

ASSOCIATIONS.—The following is a list of other organizations existing in the University: Scientific Association, Philological Club, German Club, University Guild, Debating Society, Electrical Society, Honorary Society (Phi Kappa Phi), Young Men's Christian Association, Athletic Association, Glee Club, Instrumental Club, Band.

The Scientific Association.—The Scientific Association was organized to promote interest in scientific study and investigation in various departments. It holds a general meeting once a month, and is divided into four groups, each of which has its own stated meetings. Papers describing original work, and those of a more popular nature, are presented from time to time.

The Philological Club.—The Philological Club meets on the first Monday evening of each month except January, during the academic year, for the presentation and discussion of original papers on philological and literary subjects.

The University Guild.—The University Guild has for its object the building up of an art collection, and the promotion of a general interest, among the faculty, students, and friends of the University, in the study of the fine arts. The Guild occupies the new Art Museum and holds four regular meetings during the year. As rapidly as funds permit, casts and photographs of celebrated works of art are being added to the collection already begun.

The course in the history of Italian painting is open to members of the Guild.
Phi Kappa Phi.—The Phi Kappa Phi is an honorary society. At the end of the fall term of the senior year the five members of the class having the highest standing are elected members, and at the end of the year the five next highest are added.

The Young Men's Christian Association.—The Young Men's Christian Association, composed of students, has for its object the promotion of Christian fellowship and aggressive Christian work. Religious services are held in the Art Museum, and classes for the study of the Bible are conducted on Sunday.

UNIVERSITY PUBLICATIONS

The Annual Catalogue of the University of Maine.—This contains descriptions of the courses of study, lists of the trustees, faculty, and students, and other information relating to the University.

The Short Catalogue of the University of Maine.—This is an abbreviated form of the catalogue.

The Annual Report of the Trustees, President, and Treasurer, to the Governor and Council of the State.—The report of the trustees and president includes an account of the general affairs and interests of the University for the year, and the report of the Experiment Station. The report for the odd years contains the biennial catalogue of graduates.

The University of Maine Studies.—These are occasional publications containing reports of investigations or researches made by university officers or alumni.

The University Circulars.—These are occasional pamphlets, issued for special purposes. Those now ready for distribution relate to: the Classical and Latin-Scientific Courses; the Courses in Agriculture; the Courses in Pharmacy; the College of Law; the Courses in Engineering; Student Expenses.
The Maine Bulletin.—This is a publication issued monthly during the academic year, to give information to the alumni and the general public.

The Annual Report of the Experiment Station.—This is Part II of the Annual Report of the University.

The Experiment Station Bulletins.—These are popular accounts of the results of station work which relate directly to farm practice.

The Campus.—This is a journal published semi-monthly during the university year by an association of the students.

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

MILITARY INSTRUCTION

Military instruction is required by law. The department is under the charge of an officer of the regular army, detailed by the President of the United States for this purpose. Cadet rifles, ammunition, and accoutrements are furnished by the War Department. The course has special reference to the duties of officers of the line. The students are organized into an infantry battalion of three companies and a band, officered by cadets selected for character, soldierly bearing, and military efficiency. The corps is instructed and disciplined in accordance with rules established by the President of the United States.

The uniform prescribed by the board of trustees is as follows:

For cadets, a dark blue blouse, cut military academy style, braided with black braid and without other ornament than the word MAINE embroidered in gold on each side of the collar; light blue trousers with dark stripe; and blue cap, army regulation style, with crossed rifles and the letters U. M. embroidered in gold on the front. For commissioned officers, the regulation
fatigue uniform prescribed for infantry officers of the United States Army; for non-commissioned officers, the same uniform as for cadets, with the addition of gilt chevrons on arms of blouse. The total cost of uniforms for all ranks is $13.70. The uniforms are procured through an authorized tailor, and are made in the best manner of thoroughly good material. Cadets are required to wear the uniform when on military duty, and may wear the same at other times, provided the complete uniform is worn.

The three seniors who attain the highest standing in the military department are reported to the Adjutant General of the U. S. Army, and their names are printed in the U. S. Army Register. Cadets who have satisfactorily completed the course in military science receive at graduation a certificate of military proficiency and are reported to the Adjutant General of Maine.

Service in the military department is optional for members of the junior and senior classes.

PHYSICAL TRAINING

The new gymnasium, completed in the spring of 1901, affords unexcelled opportunities for physical training and in-door athletics.

On the first floor are the baseball cage and bowling alley, lockers, baths and toilet rooms for the accommodation of three hundred and seventy-five students, with space to enlarge these accommodations when necessary.

The gymnasium proper is on the second floor, which has a floor space of 6,550 square feet, with a running track overhead. This main room of the gymnasium is equipped with a large variety of light and heavy gymnastic apparatus and many of the best patterns of modern developing appliances.

Gymnasium work, consisting of drills with Indian clubs, dumbbells, wands and bar-bells, also exercises on the heavy apparatus, and gymnasium games, is required of freshmen and sophomores from November 15th to April 15th.
A physical examination of each student is made, together with measurements and strength tests. From the data thus procured special exercises are prescribed with a view to the systematic development of the entire physical system.

PUBLIC WORSHIP

Religious services of a simple character are held in the chapel every day except Saturday and Sunday. All undergraduate students are required to be present. Students receive a cordial welcome at all services in the churches of the village. Voluntary religious services, under the direction of the Young Men's Christian Association, are held weekly.

GENERAL REGULATIONS

The regulations in regard to the selection of studies, standings and grades, absences from recitations and examinations, rhetorical exercises, entrance conditions, leave of absence, attendance upon chapel, penalties, examinations, and athletics, are printed in a small pamphlet, which may be obtained from the secretary.

By these regulations, the quota of regular studies for each student varies from a minimum of fifteen hours, to a maximum of twenty hours of class room work each week. In the application of this rule, two hours of laboratory work, or of other exercises not requiring preparation, counts as one hour.

Excuses for absence from individual exercises are not required. Each student is expected to be present at all recitations and other exercises except when imperative reasons require absence. Of
these reasons he is the judge; but a student who is absent from ten per cent. or more of the exercises in any study is not admitted to the final examination. A student who fails to pass at an examination, is absent from an examination, or is excluded from an examination, may make up his deficiency at the special examinations held at the times noted in the calendar. The arrearage examinations during the Christmas recess include only studies of the spring term; the examinations during the Easter recess include only studies of the fall term; the examinations at the beginning of the fall term include all the studies of the year. A student who fails to make up an arrearage before the study is again taken in class is required to attend recitations in that study.

Each student is given a report of his work shortly after the close of each term. Parents or guardians may obtain these reports upon application to the secretary.

---

SCHOLARSHIP HONORS

Honors for scholarships are of two kinds, general and special. General honors are awarded, at graduation, to students who attain an average standing, after the freshman year, of ninety on a scale of one hundred. Special honors are granted for the satisfactory completion of an honor course in addition to the work required for a degree. An honor course must involve at least ninety recitations or an equivalent. The methods of work are determined by the instructor, who should be consulted in each case by students desiring to take such a course. Honor courses are open to juniors and seniors who have attained an average standing of eighty per cent. in all previous work, and an average standing of ninety per cent. in all previous work of the department in which the honors are sought. A student cannot register for an honor course without the consent of the faculty, nor later than the fourth week of the fall term. Upon the completion of a course, the student's work will be tested by an examination or
thesis, or both, under the direction of the faculty committee on honor courses; and the result, together with the instructor's report, will be laid before the faculty. The faculty may grant special honors to those students who receive the approval of the committee, but will not do so if the general work is unsatisfactory. Honors, and their nature, are stated upon the Commencement program and published in the annual catalogue.

DEGREES

The degree of Bachelor of Arts (B. A.) is conferred upon students that complete the Classical Course.

The degree of Bachelor of Philosophy (Ph. B.) is conferred upon students that complete the Latin-Scientific Course.

The degree of Bachelor of Science (B. S.) is conferred upon students that complete the Scientific, Chemical, Agricultural, Forestry, Civil Engineering, Mechanical Engineering, Electrical Engineering, Mining Engineering, or Pharmacy Course. The diploma indicates which course has been completed.

The degree of Pharmaceutical Chemist (Ph. C.) is conferred upon students that complete the Short Pharmacy Course.

The degree of Bachelor of Laws (LL. B.) is conferred upon students that complete the Law Course.

ADVANCED DEGREES

For receiving an advanced degree the required preparation must include the attainment of the proper first degree.

The Master's degrees, viz., Master of Arts (M. A.), Master of Philosophy (M. Ph.), Master of Science (M. S.), and Master of Laws (LL. M.), are conferred upon holders of the corresponding Bachelor's degrees under either of the following conditions:

(1) One year's work in residence, of a minimum amount equal to not less than six credits (see p. 49), including examinations on a prescribed course of study in a major subject and not
more than two minor subjects, and the presentation of a satisfactory thesis. In special cases all the work may be done in one department. The course for each candidate must be approved by the committee on advanced degrees not later than the first week in October. A registration fee of $5.00 is charged, and an additional fee of $15.00 for examinations and diploma is payable upon the completion of the work. The thesis must be submitted in type-written form not later than May 20. Candidates are expected to be present in person to receive their degrees.

(2) Two years' work in absence, with examinations at the University, the other conditions as in (1).

The professional degrees of Civil Engineer (C. E.), Mechanical Engineer (M. E.), and Electrical Engineer (E. E.), may be conferred upon graduates of the Civil Engineering, Mechanical Engineering, and Electrical Engineering Courses respectively on the presentation of a satisfactory thesis after at least three years of professional work subsequent to graduation. A fee of $10.00 is required, payable upon presentation of the thesis, which must be submitted not later than May 20. Candidates are expected to be present in person to receive their degrees.

---

STUDENT EXPENSES

Many students go through college with an annual expenditure of little more than $200, exclusive of the expense of clothing, traveling and vacation, and very many earn a part of this sum by vacation work. An estimate of the necessary annual expenses of a student in any department, except the College of Law, may be made from the following table. For the expenses of students in the College of Law reference is made to the article on that College. It should be noticed that clothing, traveling, vacation, society and personal expenses are not included in the table. These vary according to individual tastes and habits. The table is made up for men students who room in Oak Hall and board at the Commons. The necessary expenses of other students are
sometimes lower, but usually slightly higher. In all cases an allowance must be made for personal incidental expenses. The expenses of the first year are higher than those of later years.

**Annual Student Expenses**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition, 2 terms at $15.00</td>
<td>$30.00</td>
</tr>
<tr>
<td>Registration fee, 2 terms at $5.00</td>
<td>$10.00</td>
</tr>
<tr>
<td>Incidental expenses, 2 terms at $10.00</td>
<td>$20.00</td>
</tr>
<tr>
<td>Laboratory fees, (average) about</td>
<td>$10.00</td>
</tr>
<tr>
<td>Text-books, about</td>
<td>$15.00</td>
</tr>
<tr>
<td>Board, 36 weeks at $3.00</td>
<td>$108.00</td>
</tr>
<tr>
<td>Heat and light for half room, and general care of dormitory, about</td>
<td>$20.00</td>
</tr>
</tbody>
</table>

Total, ....................................................................... $213.00

The tuition charge is $15.00 a term, or $30.00 a year, and all students are subject to this charge except those in the courses in agriculture, for none of which is any tuition charge made. Residents of Maine who need assistance and maintain a good record may obtain, from the University, loans to cover the tuition charge. The regulations in regard to these loans are stated on page 38.

The registration fee of $5.00 must be paid at the beginning of each term before the student enters any classes.

The incidental fee is $10.00 a term, or $20.00 a year, and covers heat and light for public buildings, reading-room charges, care of public rooms, and miscellaneous expenses.

A student obliged to leave the University within two weeks after the beginning of the term may have the foregoing amounts refunded with the exception of the registration fee. A student leaving within the first half of the term receives a rebate of one-half the incidental expenses. Under no circumstances is the registration fee refunded.

The cost of text-books will average about $15.00 a year for the course. These may be bought from the librarian at cost, but must be paid for on delivery. The expense may be decreased by buying second-hand books and selling them after using them.

Students in the laboratories and shops pay certain charges to cover the cost of materials and maintenance. These charges are as follows:—botany, per term, $1.00; chemistry, per term, about
$3.00; bacteriology, per course, $3.00; physics, per course, $2.00 to $4.00; pharmacy, per term, about $3.50; mineralogy, $2.00; biology, per course, $2.00; electrical engineering, per course, $2.50; mechanical engineering, per course, $2.00; shop, per course, $4.00 to $5.00. Laboratory charges in the civil engineering course are very few, but traveling expenses incurred in visiting engineering works will be nearly equivalent to the laboratory expenses of other courses.

The largest item of expense is for board. At the Commons, the university boarding house, the price is $3.00 a week. Board may be obtained in clubs or private families at prices ranging from $2.50 to $3.25 a week.

The charges for rooms in Oak Hall are $0.60 a week for each student, when two occupy a room. This pays for heat and light, for the lighting and care of the halls and public rooms of the dormitory, and for ordinary damages. Students supply their own furniture. Furnished rooms, with light and heat, may be obtained in the village for $1.50 a week if occupied by one person, or $2.00 a week if occupied by two persons.

Students in University Hall pay $1.00 a week for room and $3.00 a week for board.

Women students that do not live at their own homes are required to room and board at the Mt. Vernon House. The price of board is $3.00 a week. For the heat, light and care of their rooms and of the public rooms the charge is seventy-five cents a week.

Each student is required to deposit with the treasurer a bond, with two good names as sureties, in the amount of $150.00, to cover term bills. Blanks on which bonds should be made out will be furnished by the secretary upon application. Those who keep a sufficient deposit with the treasurer to cover the bills of one term will not be required to furnish a bond. The deposit required is $90.00 from those who board at the Commons, University Hall, or Mt. Vernon House, and $30.00 from others. No student will be graduated who is in debt to the treasury.

A circular containing a fuller statement in regard to expenses, and treating of the opportunities for self-help, may be obtained upon application.
LOANS

TUITION LOANS

Residents of Maine that need assistance and maintain a satisfactory record may borrow from the university treasury a sum sufficient to pay the tuition charge. This privilege is not extended to students in the College of Law.

Borrowers are required to give endorsed notes or other satisfactory security. The loans bear interest at six per cent. per annum, and are due $30.00 a year, beginning with the first year after graduation, but may be paid earlier. No member of the faculty is accepted as an endorser.

Loans are granted by a committee consisting of the president and two other members of the faculty. The number of loans may not exceed one-third of the number of students in the undergraduate departments. Loans are granted to cover the tuition charges of one year at a time.

The first grant of loans for each university year is made in June preceding. Applications for loans are considered during May, and to insure attention at this time should be forwarded to the President not later than May 15. A second award is made in the fall term. Applications should be made not later than October 10. They must be made to the President upon blanks to be obtained from the Secretary of the Faculty. Awards made in June may be withdrawn from students who do not register, or claim their loans, by October 10.

THE KITTREDGE LOAN FUND

This fund, amounting to nearly one thousand dollars, was established by Nehemiah Kittredge of Bangor. It is in the control of the president and treasurer of the University, by whom it is loaned to needy students. 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 shall be paid promptly, and that the principal shall be returned from the first earnings after graduation.

---

**SCHOLARSHIPS AND PRIZES**

**The Kidder Scholarship** was endowed by Frank E. Kidder, Ph. D., Denver, Colorado, a graduate of the University in the class of 1879, to be awarded to a member of the junior class to be selected by the President and the faculty.

**The Junior Exhibition Prize** will be awarded to that member of the junior class who shall present the best oration at the junior exhibition. In the award of this prize both the composition and the delivery of the oration will be considered.

**The Sophomore Declamation Prize**, for excellence in elocution, will be awarded to the best speaker in the sophomore class.

**The Libbey Prize**, the gift of the Hon. Samuel Libbey, Orono, will be awarded to the student who shall present the best essay upon an agricultural topic. The essays must be handed to the professor of agriculture on or before the first Monday in June.

**The Walter Balentine Prize**, the gift of Whitman H. Jordan, Sc. D., Geneva, N. Y., a graduate of the University in the class of 1875, will be awarded to that member of the junior class who shall excel in biological chemistry.

**The Kennebec County Prize**, the gift of the Hon. William T. Haines, Waterville, a graduate of the University in the class of 1876, will be awarded to that member of the senior class who shall write the best essay on applied electricity.

**The Franklin Danforth Prize**, the gift of the Hon. Edward F. Danforth, Skowhegan, a graduate of the University in the class of 1877, in memory of his father, Franklin Danforth, will be awarded to that member of the senior class in the agricultural course who shall attain the highest standing.
THE PHARMACY PRIZE will be awarded to that student in the Pharmacy Department who shall attain the highest standing in chemistry in the last year of his course.

ADMISSION

Applicants for admission must pass the required examinations, or present satisfactory certificates of fitness, and file with the Treasurer a bond for $150 signed by two bondsmen, as security for the payment of term bills. A cash deposit covering the bills of one term will be accepted in place of a bond. In the College of Law the fees must be paid in advance, and no bond or deposit is required. The University admits men and women, both residents of Maine and non-residents.

Candidates for advanced standing are examined in the preparatory studies, and in those previously pursued by the classes they propose to enter, or in other equivalent studies. Certificates from approved schools are accepted for the preparatory work, but not for any part of the college work, unless done in a college. A student who has accomplished half of the preparatory course may be examined on that part, and receive credit therefor.

The attention of students preparing for the entrance examinations is called to the need of careful work in mathematics. A good preparation in algebra and geometry is most important for those who expect to enter engineering courses. The schools should give a part of the work in algebra and geometry, or a review of these subjects, during the last year.

Students preparing for the Classical or Latin-Scientific courses should devote special attention to Latin composition, Roman history, and constant practice in pronouncing Latin according to the Roman method.

Persons, not candidates for a degree, who wish to take special studies, may be permitted to do so upon giving satisfactory evidence that they are prepared to take the desired studies. If they subsequently desire to become candidates for a degree, or to take a regular course, they will be required to pass the entrance examinations.
No examinations are required for admission to the special and extension courses in agriculture.

College graduates who wish to enter a technical course are admitted to the junior class without examination. Students in general college courses, who expect to pursue technical courses after graduation, should avail themselves of opportunities for the study of mathematics, physics, chemistry, and drawing, as a preparation for engineering courses; and of physics, chemistry, and drawing, for chemical and biological courses.

For admission to the College of Law, see page 119.

ENTRANCE EXAMINATIONS

Entrance examinations are held at Orono, beginning two days before the opening of the fall term, and on the day after Commencement. To save expense to candidates, examination papers will be sent to any satisfactory person who will consent to conduct examinations on these days. The questions are to be submitted under the usual restrictions of a written examination, and the answers returned to the University accompanied by the endorsement of the examiner. Applications for such examinations must be made out on blanks to be obtained from the Secretary of the Faculty.

ENTRANCE REQUIREMENTS

The requirements for admission are uniform with the following plan of college entrance requirements which was adopted by the Maine Association of Colleges and Preparatory Schools at its annual meeting in Augusta, October 25th, 1902:

To gain admission into any of the courses leading to the degrees of B. A., Ph., B. or B. S., 26 points must be offered by the candidate, according to the following schedules (to count 2 points, a subject must be pursued for one school year, with five recitation periods a week):
For the B. A. Course

All Subjects Required

College Entrance English counts 4 points
Latin " 8 "
Greek " 6 "
Algebra " 4 "
Plane Geometry " 2 "
Roman History " 1 point
Greek " 1 "

26

For the Ph. B. Course

College Entrance English counts 4 points
Latin " 8 "
Algebra " 4 "
Plane Geometry " 2 "
Roman History " 1 point

19

Optional Subjects (7 Points to be Chosen)

(If Greek is not taken, French or German must be; and if Greek is taken, Greek History must be taken also. Not less than 4 points of any modern language will be accepted.)

Greek counts 6 points
Each year of French " 2 "
" 2 " German
*Chemistry " 2 "
*Physics " 2 "
Solid Geometry " 1 point
Greek History " 1 "
English " 1 "
American History and Civil Government " 1 "

*The work in these sciences must include certified notebooks exhibiting the results of experimental work performed by the student.
**FOR THE B. S. COURSE**

*Required Subjects*

<table>
<thead>
<tr>
<th>Subject</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Entrance English</td>
<td>4 points</td>
</tr>
<tr>
<td>Algebra</td>
<td>4 &quot;</td>
</tr>
<tr>
<td>Plane Geometry</td>
<td>2 &quot;</td>
</tr>
<tr>
<td>Solid Geometry</td>
<td>1 point</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional Subjects (15 Points to be Chosen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Of these, two years of one modern language, one year of science, and one year of history must be taken. Not less than 4 points of any modern language will be accepted.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each year of French</td>
<td>2 points</td>
</tr>
<tr>
<td>&quot; &quot; German</td>
<td>2 &quot;</td>
</tr>
<tr>
<td>&quot; &quot; Latin</td>
<td>2 &quot;</td>
</tr>
<tr>
<td>&quot; &quot; Greek</td>
<td>2 &quot;</td>
</tr>
<tr>
<td>Advanced Mathematics (higher Algebra and Plane and Spherical Trigonometry)</td>
<td>2 &quot;</td>
</tr>
<tr>
<td>*Chemistry</td>
<td>2 &quot;</td>
</tr>
<tr>
<td>*Physics</td>
<td>2 &quot;</td>
</tr>
<tr>
<td>Physiography</td>
<td>1 point</td>
</tr>
<tr>
<td>Physiology</td>
<td>1 &quot;</td>
</tr>
<tr>
<td>Roman History</td>
<td>1 &quot;</td>
</tr>
<tr>
<td>Greek</td>
<td>1 &quot;</td>
</tr>
<tr>
<td>English</td>
<td>1 &quot;</td>
</tr>
<tr>
<td>American History and Civil Government</td>
<td>1 &quot;</td>
</tr>
</tbody>
</table>

Candidates for the Short Course in Pharmacy (two years) are examined on—*Elementary Subjects*, Descriptive Geography, Arithmetic, English Grammar, Physiology; *History*, United States; *Mathematics*, Algebra through simple equations of the first degree.

**Substitutes.**—One year of Latin will be accepted as a substitute for either of the following groups: (a) Geography, Arithmetic, English Grammar, and Physiology; (b) One science.

*The work in these sciences must include certified notebooks exhibiting the results of experimental work performed by the student.*
One year of French or German will be accepted as a substitute for either of the following groups: (a) Geography, Arithmetic, English Grammar, Physiology; (b) One science.

Other equivalents will be accepted for any of the requirements except Mathematics.

For the requirements for admission to the College of Law, see the article on the College of Law, page 119.

REQUIREMENTS IN DETAIL

The following statements will show in detail the requirements in each subject.

LANGUAGE

ENGLISH.—Grammar. The usual school course. Attention should be given to punctuation and the use of capital letters.

Reading and Practice. Each candidate will be required to present evidence of a general knowledge of the substance of the books mentioned below and to answer simple questions on the lives of their authors. The examination will usually be the writing of one or two paragraphs on each of several topics. The treatment of these topics is designed to test the power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of this test the candidate may present an exercise book, certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

In 1904 and 1905 this part of the examination will be based upon: Shakespeare's Merchant of Venice and Julius Caesar; the Sir Roger de Coverley Papers in The Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; Scott's Ivanhoe; Carlyle's Essay on Burns; Tennyson's Princess; Lowell's Vision of Sir Launfal; George Eliot's Silas Marner.

In 1906, 1907, and 1908 it will be based upon: Shakespeare's Macbeth and The Merchant of Venice; The Sir Roger de Coverley Papers in The Spectator; Irving's Life of Goldsmith; Coleridge's The Ancient Mariner; Scott's Ivanhoe and The Lady of the Lake; Tennyson's Gareth and Lynette, Lancelot and Elaine,
and The Passing of Arthur; Lowell's The Vision of Sir Launfal; George Eliot's Silas Marner.

*Study and Practice.* This part of the examination presupposes a careful study of the works named below. The examination will be upon subject-matter, form, and structure; and will also test the candidate's ability to express his knowledge with clearness and accuracy.

In 1904 and 1905 it will be based upon: Shakespeare's Macbeth; Milton's Lycidas, Comus, L'Allegro, and Il Penseroso; Burke's Speech on Conciliation with America; Macaulay's Essays on Milton and on Addison.

In 1906, 1907, and 1908 it will be based upon: Shakespeare's Julius Caesar; Milton’s L’Allegro, Il Penseroso, Comus, and Lycidas; Burke’s Speech on Conciliation with America; Macaulay’s Essay on Milton, and Life of Johnson.

**French.**—*First Year.* Pronunciation; rudiments of grammar, including inflection of the regular and irregular verbs, plural of nouns, inflection of adjectives, participles and pronouns, use of personal pronouns, common adverbs, prepositions, and conjunctions, word order, and elementary syntax; abundant easy exercises; 100-175 pages of graduated texts; practice in translating into French variations of sentences read; dictation, and reproduction from memory of sentences from text. Super's, or Whitney's Reader is recommended.

*Second Year.* 250-400 pages of easy modern prose; constant practice in translation of easy variations of the text into French; abstracts of the text; continuation of grammar; dictation.

The following texts are recommended: (1) Perrault's Contes de Fées, or Daudet's Easier Short Stories; (2) Erckmann-Chatrian’s Mme. Thérèse or Conscrit de 1813, or About’s Roi des Montagnes, or Mérimée’s Colomba; (3) Labiche’s Voyage de M. Perrichon, or Labiche et Martin’s La Poudre aux Yeux.

*Third Year.* (See p. 46) 400-600 pages of ordinary difficulty; constant practice in French paraphrases, abstracts, reproductions from memory; study of a grammar of moderate completeness; dictation.

The following texts are recommended: (1) Sandeau’s Mlle. de la Seiglière, or Augier et Sandeau’s Le Gendre de M. Poirier; (2) Corneille’s Le Cid or Horace; (3) Racine’s Athalie or Andromaque; (4) Molière’s L’Avare or Le Bourgeois Gentilhomme; (5) Hugo’s Hernani, or Coppée’s Poems.
German.—*First Year.* Pronunciation: memorizing and frequent repetition of easy colloquial sentences; grammar: article, commonly used nouns, adjectives, pronouns, weak verbs and more used strong verbs, more common prepositions, simpler uses of modal auxiliaries, elementary rules of syntax and word-order; abundant easy exercises in composition; 75-100 pages of graduated texts from a reader; constant practice in translating into German easy variations of text, and reproduction from memory of sentences from text.

*Second Year.* Continued drill on rudiments of grammar; 150-200 pages of easy stories and plays; continued translation into German of easy variations on matter read and offhand reproduction, orally and in writing.

The following texts are recommended: (1) Andersen's Märchen or Bilderbuch, or Leander's Träumereien, about forty pages; (2) Hauff's Das Kalte Herz, or Zschockke's Der Zerbrochene Krug; (3) Hillern's Höher als die Kirche, or Storm's Immensee; (4) a short story from Heyse or Baumbach or Seidl; (5) Benedix' Der Prozess.

*Third Year.*—(See below.) Grammar; less usual strong verbs, use of articles, cases, auxiliaries, tenses and moods (particularly the infinitive and subjunctive), word-order and word-formation; about 400 pages of moderately difficult prose and poetry; constant practice in paraphrases, abstracts and memory reproductions of passages read.

The following texts are recommended: (1) One of Riehl's Novelettes; (2) a part of Freytag's Bilder aus der Deutschen Vergangenheit; (3) a part of Fouqué's Undine, or a part of Schiller's Geisterseher; (4) a short course in Lyrics and Ballads; (5) one classical play by Goethe, or Schiller, or Lessing.

Candidates may present themselves for an examination in French or German based upon the Third Year Courses outlined above and upon obtaining a rank of 80% will be allowed to pursue advanced work in college. But this examination in the Third Year Course will not be received in lieu of any required examination for admission, or of work required for a certificate.

Latin.—The grammar, including prosody; Cæsar's Gallic War, books I-IV; Cicero's four orations against Catiline, and those for Archias and for the Manilian Law; Vergil's Eclogues and the Æneid, books I-VI; the sight translation of Latin pas-
sages of moderate difficulty; the translation into Latin of simple
English sentences, and of easy narrative passages based on the
prose authors read. For the last a vocabulary of unusual words
will be furnished. Equivalent readings will be accepted for those
prescribed.

Greek.—The grammar, including prosody; Xenophon’s Anab­
asis, books I-IV; Homer’s Iliad, books I-III; the sight transla­
tion of easy passages from Xenophon; the translation into Greek
of easy passages based on the required books of the Anabasis.
For the last a vocabulary of unusual words will be furnished.
Equivalent readings will be accepted.

History

General History.—A knowledge such as may be obtained
from Myer’s General History.

Roman History.—A knowledge such as may be obtained from
Allen’s Short History of the Roman People, or from Myers’s
Rome: Its Rise and Fall, to the death of Marcus Aurelius.

Greek History.—Pennell’s, or Myers’s, History of Greece, to
the capture of Corinth, 146 B. C.

English History.—A knowledge such as may be obtained
from Montgomery’s History of England.

United States History.—A knowledge such as may be
obtained from Higginson’s History of the United States.

Mathematics

Algebra.—The elements, equations of the first degree, rad­i­
cals, the theory of exponents, quadratic equations, ratio and pro­
portion, arithmetical and geometrical progression, the binomial
theorem. Candidates for the short course in pharmacy will be
examined on no topics beyond simple equations of the first
degree. A satisfactory preparation may be obtained from New­
comb’s, Wells’ Academic, or Wentworth’s School Algebra.

Plane Geometry.—The first five books of Wells’, or of Went­
worth’s Geometry, or an equivalent. Numerical exercises, origi­
nal propositions and the neat and careful construction of figures
should not be neglected. The examination will include original
propositions for demonstration or construction.

Solid Geometry.—Books VI-IX of Wells’, or books VI-VIII
of Wentworth’s Geometry, or an equivalent. The examination
will be planned to test the candidate's ability to apply the theorems to the computation of surfaces and volumes, as well as his readiness in demonstration. Required only of candidates for the engineering courses.

*Chemistry.*—The necessary ground is covered by the following text-books: Fisher, Remsen, Roscoe (inorganic part), Shepard, Storer and Lindsay, Williams.

Physical Geography (Physiography).—A satisfactory preparation may be obtained from Appleton's Physical Geography.

*Physics.*—A satisfactory treatment of this subject may be found in Avery's, or Gage's Physics.

Physiology.—Cells and tissues, skeleton, muscles, blood and circulation, respiration, nutrition and digestion, lymphatic system, excretory organs, nervous system, special senses, hygiene.

Elementary Subjects

Descriptive Geography.—The usual school course. Required for short course in pharmacy only.

Arithmetic.—The usual school course, including the metric system of weights and measures. Required for the short pharmacy course only.

Admission by Certificate

Certificates for admission to the freshman class are accepted only from graduates of schools approved by the New England College Entrance Certificate Board. They will not be accepted from non-graduates except in extraordinary cases, and then only provided the candidate is expressly recommended for admission by the principal of the school from which he comes. Certificates must be made out on blanks furnished by the University.

Certificates from schools approved by the above-mentioned Board will be accepted at any of the institutions co-operating to maintain it. Any Superintendent or Principal desiring to have a school under his charge placed upon the approved list should apply to the Secretary of the Board, Professor Nathaniel F. Davis, 159 Brown St., Providence, R. I.

*The work in these sciences must include certified notebooks exhibiting the results of experimental work performed by the student. These notebooks should be presented at the examination.*
REQUIREMENTS FOR GRADUATION.

(These do not apply to the College of Law and the Short Pharmacy Course. See pp. 115, 118.)

The college year is divided equally into a fall term and a spring term. Five recitation hours a week of successful work for one term entitle a student to one credit. The minimum regular work for a term is fifteen hours a week (exclusive of physical training and military science), leading to three credits. Six credits thus represent the minimum work of a year. In making up the quota of studies, laboratory work, and other studies not requiring preparation, count as half time—that is, two hours in the laboratory are counted as equivalent to one hour. The hours devoted to such studies are marked with a dagger (†) in the detailed description of courses of instruction.

Candidates for graduation are required to complete a four-years course of study by securing at least twenty-four credits. Certain courses require a larger number, as stated below. The credits are distributed as follows:

Required Work.—This work must be done by all students that are candidates for a degree, unless a special excuse is obtained from the faculty committee on required work, and is common to all courses. The required work includes:

1. English, one year, five hours a week, or the equivalent divided between two years.
2. Mathematics, one year, five hours a week.
3. Science (Chemistry, Physics, Botany, or Biology), one year, five hours a week, of which time an important part must be occupied with laboratory work.
4. Language (Greek, Latin, German, French), one language the equivalent of two years, or two languages the equivalent of one year each, five hours a week. Of students in the engineering courses, however, only 3 credits in language are required. A student beginning German or French must receive at least two credits in the subject to count it towards a degree. Preparatory Greek is not counted towards a degree.

Major Subject.—Each student must select, in some one department, work to be pursued three or four years, five recitations a week. In many cases the selection of a major subject need not
be made before the beginning of the sophomore year. A student may change his major subject with the consent of the professors in charge of the department which he leaves and the one which he wishes to enter; but no student will be graduated who has not finished all the work required for graduation in some one department, no matter how much work he may have done in other departments. The major subject must include work counting not less than six, nor more than eight credits, except that in the engineering and pharmacy courses the maximum is ten credits, and in the chemical course it is eleven credits. In the case of departments in which less work is offered than amounts to six credits, this amount must be made up from such other, related, departments as the professor under whose direction the major is taken may prescribe.

**Elective Work.**—The remainder of the student's work may be selected from any undergraduate department or departments of the University. This must be done with the advice of the head of the department in which the student has chosen his major subject, that it may bear some useful relation to his other work. In the more technical courses this provision naturally makes most of the work practically prescribed.
DEPARTMENTS OF INSTRUCTION

GREEK

PROFESSOR HUDDILSTON.

Gk 1. Xenophon.—Hellenica, Books I-IV. Study of syntax, and daily exercises in writing Greek. Four hours a week. Fall term.

Gk 2. Homer.—Odyssey, Books VI-XII. The reading of the remaining books, in English translation, is required. Assigned readings on the history of Greek poetry, "the Homeric question," and Homeric antiquities. Four hours a week. Spring term.

Gk 3. Attic Orators.—Some of the shorter orations of Demosthenes; selections from the minor Attic orators; parallel reading on the history of Greek prose literature, and the public economy and social life of Athens. Two hours a week. Fall term.

Gk 4. Greek Tragedy.—Euripides's Medea and Sophocles's Antigone. The reading of several other plays in English translation is required; also, parallel reading on the history of the Greek tragic drama. Three hours a week. Spring term.

Gk 5. Thucydides.—Book I. Assigned reading in Herodotus, and a comparative study of the three great historians of Greece. Three hours a week. Fall term. Open to students that have taken courses 1 and 3.

Gk 6. Aristophanes.—The Clouds and the Knights; lectures and collateral reading on the development of Greek comedy. Two hours a week. Spring term. Open to students that have taken courses 2 and 4.
Gk 7. **Plato.**—Selected dialogues. Lectures on the history of Greek philosophy with special reference to Plato and Aristotle. *Two hours a week.* Fall term. Open to students that have taken courses 3 and 5.

Gk 8. **Pindar.**—The Olympian and Pythian Odes; supplementary reading on the history of Greek lyric poetry. *Two hours a week.* Spring term.

Gk 9. **Greek Sculpture.**—Lectures, illustrated by photographs and lantern slides. This course does not presuppose a knowledge of Greek, but is intended to serve as a general introduction to the history of the fine arts. The interdependence of the arts and their relation to the life of the Greeks, as well as their relation to the world’s subsequent art, are emphasized. *Two hours a week.* Given in the fall term of odd years.

Gk 10. **Greek Sculpture.**—A continuation of course 9, including a study of Greek architecture. *Two hours a week.* Given in the spring term of even years.

Gk 11. **New Testament Greek.**—This course is intended for those who have no acquaintance with ancient languages, and, with course 12, is expected to give considerable facility in reading the narrative portions of the Greek Testament. It neither takes the place of preparatory Greek, nor counts toward a degree in the classical course. It is open to all students, but to freshmen only on permission of the instructor. *Three hours a week.* Given in the fall term of even years.


Gk 13. **Greek Private Life.**—Lectures, illustrated with lantern slides and photographs. Assigned reading. *Two hours a week.* Given in the fall term of even years.

Gk 14. **Greek Religion.**—A study of the chief divinities in ancient Greek religion. Lectures and assigned reading. Investigation of special topics by members of the class. *Two hours a week.* Given in the spring term of odd years.
Gk 15. GREEK PROSE COMPOSITION.—A course in writing Greek, intended to continue the work begun in Gk 1. *One hour a week.* Spring term.

Gk 18. GREEK PROSE COMPOSITION.—An advanced course consisting of the translation into Greek of narrative and rhetorical passages. *One hour a week.* Fall term.


For the accommodation of those students who have not presented Greek for entrance to college and who desire to take the Classical Course the following courses in preparatory Greek are offered. None of these courses will be counted towards a degree. It is expected that the maturity of the students will enable the instructor to cover the usual three years of preparatory Greek in two years.

Gk 20. ELEMENTARY GREEK.—A thorough mastery of the declensions, conjugations, and most common principles of syntax. Ball’s The Elements of Greek will be used. *Four hours a week.* Spring term.


Gk 22. XENOPHON.—Anabasis, Books III-IV; Sight reading in Attic prose; composition and grammar; text as in the preceding course. *Four hours a week.* Fall term.

Gk 23. HOMER.—Benner’s selections from Homer’s Iliad. This course will include a general survey of Homer’s great epic, and a special study of Achilles, the hero of the poem. *Four hours a week.* Spring term.
At 1. **ITALIAN ART.**—The revival of the fine arts in Italy, with special reference to the history of painting in Tuscany and Umbria during the early Renaissance. Lectures and collateral reading. The work is illustrated by a large and growing collection of photographs and casts. *One hour a week.* Given in the fall term of even years.

At 2. **ITALIAN ART.**—A continuation of course 1, dealing chiefly with the masters of the high Renaissance in Florence and Rome. *One hour a week.* Given in the spring term of odd years.

At 3. **ITALIAN ART.**—Painting in the north of Italy, and the culmination of the Italian Renaissance in the Venetian masters. Lectures and collateral reading. *One hour a week.* Given in the fall term of odd years.

At 4. **ITALIAN ART.**—A continuation of course 3. *One hour a week.* Given in the spring term of even years.

**LATIN**

**Professor Harrington.**

Lt 1. **Livy and Cicero.**—Livy, History of Rome, selections from Books XXI and XXII; Cicero, De Senectute; Latin composition based upon the authors read. *Four hours a week.* Fall term.

Lt 2. **Horace.**—Selections from the Satires, Epistles, Epodes and Odes; classical mythology. *Four hours a week.* Spring term.

Lt 3. **Plautus and Terence.**—The Captivi, Trinummus, or Menæchmi of Plautus; the Andria, Adelphæ, or Phormio of Terence; lectures on the development of Roman comedy. *Three hours a week.* Fall term.

Lt 4. **Cicero and Tacitus.**—Selected letters of Cicero, the Agricola and Germania of Tacitus. *Three hours a week.* Spring term.

Lt 5. **Pliny and Tacitus.**—Selected letters of Pliny the younger; readings in the Annals of Tacitus; studies in Silver
Latinity. *Two hours a week.* Given in the fall term of odd years. Open to students that have taken courses 1-4.

Lt 6. **Roman Lyric Poetry.**—Selections from Catullus, Horace, and the Latin hymns of the Christian church; original research. *Two hours a week.* Given in the spring term of even years. Open to students that have taken courses 1-4.

Lt 7. **The Roman Elegiac Poets.**—Selections from Catullus, Tibullus, Propertius, and Ovid; original research. *Two hours a week.* Given in the fall term of even years. Open to students that have taken courses 1-4.

Lt 8. **The Roman Elegiac Poets.**—A continuation of course 7. *Two hours a week.* Given in the spring term of odd years.

Lt 9. **Roman Satire.**—Selections from Ennius, Lucilius, Varro, Horace, Persius, Juvenal, Petronius; original research. *Two hours a week.* Given in the fall term of odd years. Open to students that have taken, or are taking, courses 5-6, or 7-8.

Lt 10. **Roman Satire.**—A continuation of course 9. *Two hours a week.* Given in the spring term of even years.

Lt 11. **Roman Philosophy.**—Lucretius (selections); Cicero (selections from the Academica, De Officiis, Tusculanæ Disputationes, De Finibus, De Natura Deorum); Seneca (De Providentia, De Vita Beata); lectures on the history and development of ancient philosophy; original research. *Two hours a week.* Given in the fall term of even years. Open to students that have taken, or are taking, courses 5-6 or 7-8.

Lt 12. **Roman Philosophy.**—A continuation of course 11. *Two hours a week.* Given in the spring term of odd years.

Lt 13. **Roman Literature.**—General introduction to the subject; illustrative class-room readings; a choice of one of five courses of collateral reading of Roman authors. *Three hours a week.* Given in the fall term of even years. Open to students that have taken courses 1-4.

Lt 15. **Roman Rhetoric and Oratory.**—Quintilian (selections from the Institutio Oratoria); Tacitus (Dialogus de Oratoribus); Cicero (selections from the Brutus, De Oratore, Orator); a study of sample orations of Cicero, and of some of the fragments of Roman oratory. *Two hours a week.* Given in the fall term of odd years. Open to students that have taken courses 1-4.

Lt 16. **Roman Rhetoric and Oratory.**—A continuation of course 15. *Two hours a week.* Given in the spring term of even years.

Lt 17a. **Roman Topography.**—Lectures on the development of the city of Rome and the present condition of its ancient ruins, preceded by a glance at the geography of the Italian peninsula. Illustrated by maps, photographs, and stereopticon views. *One hour a week.* Given in the fall term of odd years. Open to students that have taken courses 1-4.

Lt 17b. **Roman Topography.**—A continuation of course 17a. *One hour a week.* Given in the spring term of even years.

Lt 18. **Roman Private Life.**—Text-book work, supplemented by collateral reading and lectures upon some of the more important and interesting customs and institutions of Roman everyday life. *One hour a week.* Given in the fall term of odd years. Open to students that have taken courses 1-4.

Lt 19a. **Latin Writing.**—Exercises in the translation of English into Latin with special reference to style. *One hour a week.* Given in the fall term of even years. Open to students that have taken courses 1-4.

Lt 19b. **Latin Writing.**—A continuation of course 19a. *One hour a week.* Given in the spring term of odd years.

Lt 20. **Roman Epigraphy.**—The principles of the science, and the interpretation of selected inscriptions. *One hour a week.* Given in the spring term of even years. Open to students that have taken courses 1-4.
Lt 21. **Rapid Reading of Latin.**—Practice in reading without translation. Selections from various authors. Especially adapted for students expecting to teach the language. *One hour a week.* Spring term. Open only to students whose major subject is Latin.

**ROMANCE LANGUAGES**

**Professor Segall; Mr. Shute.**

**Rm 1. French.**—Elementary Course. Chardenal, Complete French Course; Super, French Reader; François and Giroud, Simple French; Fontaine, Livre de Lecture et de Conversation; Labiche, Voyage de M. Perrichon. *Five hours a week.* Fall term. **Professor Segall; Mr. Shute.**

**Rm 2. French.**—A continuation of course 1. *Five hours a week.* Spring term. **Professor Segall; Mr. Shute.**

**Rm 2a. French.**—For students that offer French at entrance. François, Prose Composition, Introductory Course; Le Sage, Gil Blas; Maupassant, Huit Contes Choisis; Mérimée, Quatre Contes; Fontaine, Fleurs de France; Labiche, Moi; Augier, Le Gendre de M. Poirier. *Three hours a week.* Fall term. **Professor Segall; Mr. Shute.**

**Rm 2b. French.**—A continuation of course 2a. *Three hours a week.* Spring term. **Professor Segall; Mr. Shute.**

**Rm 3a. French.**—For students that have taken courses 1 and 2, or their equivalent. Daudet, Morceaux Choisis; Alliot, Contes et Nouvelles; Balzac, Le Curé de Tours and other stories; Loti, Pêcheur d’Islande; Molière, L’Avare, and Le Misanthrope; François, French Composition, Advanced Course. *Three hours a week.* Fall term. **Professor Segall.**

**Rm 3b. French.**—A continuation of course 3a. *Two hours a week.* Spring term. **Professor Segall.**

**Rm 4a. French.**—Crane, La Société Française au Dix-septième Siècle; Warren, French Prose of the 17th Century; Molière, Les Femmes Savantes, and Tartuffe; Cohn and Wood-...
ward, French Prose of the XVIIIth Century; Beaumarchais, Le Mariage de Figaro; Taine, Introduction à l'Histoire de la Litt. Anglaise and Les Origines de la France Contemporaine; Leune, Difficult Modern French; Rostand, Cyrano de Bergerac. Three hours a week. Fall term. Professor Segall.

Rm 4b. French.—A continuation of course 4a. Three hours a week. Spring term. Professor Segall.

Rm 9a. Spanish.—Elementary Course. Loiseaux, Grammar; Matzke, First Spanish Readings; De Haan, Cuentos Modernos, and Tres Comedias Modernas; Alarcon, El Capitan Veneno; Galdos, Marianela. Three hours a week. Fall term. Professor Segall.

Rm 9b. Spanish.—A continuation of course 9a. Three hours a week. Spring term. Professor Segall.

Rm 10a. Spanish.—For students that have taken course 9. Mantilla, Historia del Mundo. Composition and Conversation. Three hours a week. Fall term. Mr. Arana.

Rm 10b. Spanish.—A continuation of course 10a. Three hours a week. Spring term. Mr. Arana.

Rm 11a. Italian.—An elementary course, elective for students that have completed course 2. The text-books are: Grandgent, Italian Grammar; Bowen, First Italian Readings. Three hours a week. Given in the fall term of odd years. Professor Huddleston.

Rm 11b. Italian.—A continuation of course 11a. The text-books are: Grandgent, Italian Composition; Goldoni, La Locandiera; De Amicis, Cuore; Manzoni, I Promessi Sposi. Three hours a week. Given in the spring term of even years. Professor Huddleston.

GERMAN

Professor Lewis; Mr. Shute.

Gm 1. German.—Elementary course. Lange, German Method; Harris, German Lessons; Andersen, Märchen; Storm, Immensee; Heyse, L'Arrabbiata; Gerstäcker, Germalshausen. Five hours a week. Fall term. Professor Lewis; Mr. Shute.
Gm 2. GERMAN.—A continuation of course 2. *Five hours a week.* Spring term. PROFESSOR LEWIS; MR. SHUTE.

Gm 2a. GERMAN.—For students that offer German at entrance. The equivalent of the first half of course 2. *Three hours a week.* Fall term. PROFESSOR LEWIS.

Gm 2b. GERMAN.—A continuation of course 2a. The equivalent of the last half of course 2. *Five hours a fortnight.* Spring term. PROFESSOR LEWIS.

Gm 3a. GERMAN.—For students that have taken courses 1 and 2, or their equivalent. Lessing, Minna von Barnhelm; Schiller, Wilhelm Tell; Sudermann, Frau Sorge; Gore, Science Reader. Review of grammatical principles; Harris, German Composition. *Three hours a week.* Fall term. MR. SHUTE.

Gm 3b. GERMAN.—A continuation of course 3a. *Two hours a week.* Spring term. MR. SHUTE.

Gm 4a. GERMAN.—Schiller, Wallenstein; Goethe, Egmont; Lessing, Nathan der Weise; lectures; outside reading; themes. *Three hours a week.* Fall term. PROFESSOR LEWIS.

Gm 4b. GERMAN.—Goethe, Faust, Part I; lectures, themes, reference readings. *Three hours a week.* Spring term. PROFESSOR LEWIS.

Gm 5a. GERMAN.—History of German literature. Kluge, Deutsche National Litteratur. Lectures, recitations, themes in English and German; collateral reading. *Three hours a week.* Fall term. PROFESSOR LEWIS.

Gm 5b. GERMAN.—A continuation of course 5a. The extended study of a particular epoch. *Three hours a week.* Spring term. PROFESSOR LEWIS.

Gm 6a. GERMAN.—Composition and conversation. Open to students that have completed courses 1 and 2, or their equivalents. *Two hours a week.* Fall term. PROFESSOR LEWIS.
Gm 6b. German.—Composition and conversation. A continuation of course 6a. Two hours a week. Spring term. Professor Lewis.

Gm 7a. German.—Advanced composition, rapid sight reading and conversation. Two hours a week. Fall term. Professor Lewis.

Gm 7b. German.—A continuation of course 7a. Two hours a week. Spring term. Professor Lewis.

At 5. History of the Drama.—A lecture course, with required collateral reading, themes, discussions. Two hours a week. Spring term. Professor Lewis.

ENGLISH

Professor Estabrooke; Mr. Thompson; Mr. Edson.

Eh 1. Public Speaking.—The purpose of this course is to give the student a practical knowledge of the fundamental principles of effective public speaking.

The first term, the work consists in the study and rendering of model public addresses of various forms. At these exercises the speakers are freely criticized with reference to voice, gesture, and interpretation, and the principles involved are explained and discussed. During the second term these principles are applied to the delivery of speeches of the student's own composition. The text-book is Riddle's Modern Reader and Speaker.

Throughout the year each student speaks once every two weeks.

This course may be taken either in the freshman or sophomore year. Mr. Edson.

Eh 2. English Composition.—This course,—to be taken throughout the sophomore year,—supplements the work of the freshman year by giving further practice in narrative, expository, and argumentative writing. Eight themes are required, each containing from 1,000 to 1,200 words. There will be a conference on each theme. Mr. Thompson; Mr. Edson.
Eh 3. **English Composition.**—This course gives both theoretical and practical instruction. The theory is taught by classroom work based on Genung's Outlines of Rhetoric. The practice is obtained by exercises written in the class-room, and by weekly themes. The themes are criticized in detail by the instructor, and those falling below the standard must be rewritten.

In addition to the study of rhetoric and the writing and rewriting of themes, certain outside reading from standard authors is required. This course is prescribed for freshmen. *Three hours a week.* Mr. Thompson; Mr. Edson.

Eh 4. **English Composition.**—Extended study of narration and description, argumentative composition, and persuasion; construction of analytical outlines of selections from Burke, Webster, Macaulay, and others; practice in different kinds of composition; exercises in extemporaneous writing. The textbooks are A. S. Hill's Principles of Rhetoric and Newcomer's Elements of Rhetoric. This course is prescribed for freshmen. *Three hours a week.* Spring term. Mr. Thompson; Mr. Edson.

Eh 5. **Old English.**—Elements of Old English grammar; reading of easy prose and poetry. Constant reference is made to the relation of Old English to modern English and modern German.

The textbook is Smith's Old English Grammar. *Three hours a week.* Given in the spring term of even years. Professor Estabrooke.

Eh 6. **English Composition and Literature.**—One two-page theme a week, and occasional longer themes, in connection with the study of selections from English prose writings. Among the writings studied will be selections from Addison, Swift, Johnson, Goldsmith, and Burke. *Two hours a week.* Fall term. Mr. Thompson.

Eh 7. **English Composition and Literature.**—A continuation of course 6. Among the writings studied will be selections from Macaulay, Carlyle, Ruskin, Newman, Matthew Arnold, and Stevenson. *Two hours a week.* Spring term. Mr. Thompson.
Courses 6 and 7 are open to those who have taken courses 3 and 4; and students especially interested in courses 6 and 7 may substitute them for courses 1 and 2.

Eh 8. English Literature.—The text-book, Pancoast's Introduction to English Literature, is supplemented by frequent lectures, and by study in the library. A few masterpieces are studied in detail. Attention is given to historical and social conditions, and the students are required to prepare essays upon the characters and times studied. Two hours a week. Fall term. Professor Estabrooke.


Eh 10. English Literature.—In this course particular attention is paid to the development of the English novel and to the Lake poets. Two hours a week. Fall term. Professor Estabrooke.

Eh 11. English Literature.—A continuation of course 10, including a study of the most important American authors of the present century. Three hours a week. Spring term. Professor Estabrooke.

Eh 12. English Literature.—Readings from English fiction. In this course selections from English novelists (chiefly later ones) are read critically, in order to determine the characteristic qualities of each. At least one entire work of a selected author is carefully studied. Two hours a week. Fall term. Professor Estabrooke.


Eh 14. American Poets.—This course is designed to make the student acquainted with the more important American poets, especially with Poe, Bryant, Longfellow, Emerson, and Lowell. The text-book is Bronson’s American Literature. Three hours a week. Given in the spring term of odd years. Professor Estabrooke.
Eh 15. **Victorian Poets.**—Tennyson, Browning, Rossetti, and Arnold. A study of selected poems, together with readings in the works of these poets and of contemporary poets. *Three hours a week.* Fall term. **Professor Estabrooke.**

**PHILOSOPHY**

**Professor Fernald.**

Pl 1. **Psychology.**—Among the topics considered are sensation, structure and functions of the brain, conditions of neural activity, consciousness, attention, conception, discrimination, association, memory, imagination, perception, reasoning, instinct, emotions and sentiments, will as volition, will as choice, and will in relation to character.

The text-book is James's *Psychology (Briefer Course).* *Three hours a week.* Fall term.

Pl 2. **Logic.**—The object of this course is to give the student a just appreciation of the functions of language as a means of expressing thought, and a familiarity with the principles of deductive and inductive reasoning. The student is given frequent drills in the application of logical principles.


Pl 3. **History of Philosophy.**—The text-book is Weber's *History of Philosophy.* *Three hours a week.* Given in the fall term of odd years.

Pl 4. **Pedagogy.**—The principles of psychology applied to the art of teaching. The order in which the several powers of the mind become active; their relative activity and development at successive school periods. The principles and methods of teaching; oral instruction and the study of books; the recitation, its objects and methods; methods of testing, by questions, by topics; examinations; psychical facts applied to moral training. *Three hours a week.* Spring term. This course should be preceded by course 9.
Pl 5. **Comparative Psychology.**—The psychology of man and of the higher animals compared. A study of other minds than ours with reference to sense-experience, instinct and intelligence, association of ideas, memory, perception of relations, the power to reason, and the emotions. *Two hours a week.* Given in the spring term of even years. Open to juniors and seniors that have taken course 1.

Pl 6. **Advanced Psychology.**—Besides special topics in general psychology, this course is designed to include a discussion of such phenomena as sleep and dreams, the hypnotic state, thought tranference, illusions and hallucinations. *Two hours a week.* Given in the spring term of odd years. Open to juniors and seniors that have taken course 1.

Pl 8. **Experimental Psychology.**—This course deals with mental processes from the standpoint of experimental study, and seeks to develop the power of the introspection of these processes by modern experimental methods. †*Two hours a week.* Fall or spring term; the same course is given each term. Open to students taking course 1, or that have taken course 1, to the limit of the psychological laboratory.

Pl 9. **History of Education.**—Educational systems, methods, theories, and practices of the ancient oriental and classical nations, as also of the nations and peoples of medieval and modern times. A comparison of the school systems of the more advanced nations, especially of those of Germany, France, England, and the United States. The history of education aims to develop, for present and future service, an educational science based on the clear and definite teachings of the past. *Two hours a week.* Fall term. Open to juniors and seniors. Pl. 9 precedes Pl 4 in the course in Pedagogy.

Pl 10. **Advanced Laboratory Psychology.**—Experimental and research work. †*Two hours a week.* Spring term. Open to students that have taken course 8.

Pl 11. **Ethics.**—Theoretical and practical ethics. A lecture course. *Two hours a week.* Given in the fall term of even years. Open to students that have taken course 1.
CIVICS

Professor Rogers.

Cv 1. Constitutional Law and History.—An outline of Anglo-Saxon institutions, the development of the English Constitution, the growth and political conditions of the American colonies, the Articles of Confederation, the adoption of the Constitution, and the comparative study of the Federal and the State Constitutions from the historical and legal standpoints.


Cv 2. Political Economy.—Instruction is given by lectures. Topical readings and investigations are required. Five hours a week. Fall term.

Cv 3. Advanced Political Economy.—A continuation of course 2. One hour a week. Spring term.

Cv 4. International Law.—The text-book is Lawrence's International Law. Five hours a week. Fall term.

Cv 5. Public Finance.—A study of taxation and public expenditures. Four hours a week. Spring term.

Cv 6. Colonial Problems.—Three hours a week. Given in the spring term of even years.

Cv 7. Sociology.—The text-book is Giddings's Sociology. Three hours a week. Given in the spring term of odd years.

Cv 8. Roman Law.—Two hours a week. Spring term.

HISTORY

Professor Fellows; Assistant Professor Colvin.

H 1. History of the United States.—The period from the close of the Revolution to the Civil War. Formation of the constitution, and rise of political parties; growth of nationality; foreign relations; conflict between states and federal government; territorial expansion; question of nullification; the slavery struggle.

*Three hours a week.* Fall term. Professor Colvin.

H 2. History of the United States.—A continuation of course 2. The constitution during the Civil War; foreign relations and questions of international law; theories, and actual process of reconstruction; results of the war; new problems.

*Three hours a week.* Spring term. Professor Colvin.

H 3. History of England.—From early times to the beginning of the Tudor period. Special attention is given to constitutional development.

*Two hours a week.* Fall term. Professor Colvin.

H 4. History of England.—From the beginning of the Tudor period to the present.

*Three hours a week.* Spring term. Professor Colvin.

H 5. Industrial and Social History of England.—The rural manor, town guilds and foreign trading; Black Death and Peasants' Rebellion; breaking up of the medieval system; expansion of England; industrial revolution; government control; extension of voluntary association.

*Two hours a week.* Given in the fall term of even years. Professor Colvin.

H 6. Europe in the Nineteenth Century.—A general course emphasizing social and industrial conditions.

*Two hours a week.* Given in the spring term of odd years. Professor Fellows.
H 7. **Medieval History.**—A general course covering the period from 395 to 1500 A. D. The disintegration of the Roman Empire; ecclesiastical institutions; feudalism; struggle between the papacy and the empire; rise of modern nations.

*Five hours a week.* Fall term. **Professor Colvin.**

H 8. **Modern History.**—An introductory course covering the period from 1500 A. D. to the present time. A rapid survey of the Reformation, the absolute monarchy in France, the French Revolution, the Napoleonic era, and Europe in the nineteenth century.

*Five hours a week.* Spring term. **Professor Colvin.**

H 9. **History of Modern Continental Europe.**—The period from the peace of Utrecht to the fall of Napoleon I.

*Three hours a week.* Fall term. **Professor Colvin.** Open to students that have taken courses 7 and 8.

H 10. **History of Modern Continental Europe.**—The period since the fall of Napoleon I.

*Two hours a week.* Spring term. **Professor Colvin.** Open to students that have taken course 9.

H 11. **The Renaissance and the Reformation.**—The period from 1300 to 1648 A. D.

*Two hours a week.* Fall term. **Professor Colvin.** Open to students that have taken courses 7 and 8.


*Two hours a week.* Spring term. **Professor Colvin.**

**MATHEMATICS AND ASTRONOMY**

**Professor Hart; Mr. Lambert; Mr. Buck; Mr. Conner.**

Ms 1. **Solid Geometry.**—Solid and spherical geometry, including original demonstration and the solution of numerical problems.

The text-book is Wells' *Solid Geometry.* *Five hours a week for eight weeks.* Spring term. **Mr. Lambert; Mr. Buck.**

*Required of all Freshmen except engineering students, for whom it is an entrance requirement.*
Ms 2. **Algebra.**—A brief review of the theory of exponents, quadratic equations, the binomial theorem, and the progressions; indeterminate equations; logarithms, including practice in the solution of numerical exercises; undetermined coefficients; partial fractions; exponential and logarithmic series, and the computation of logarithms; permutations and combinations; probability; theory of equations.

The text-book is Wentworth's College Algebra. *Five hours a week.* Fall term. Mr. Lambert; Mr. Buck; Mr. Conner.

Ms 4. **Plane Trigonometry.**—The text-book is Crockett's Trigonometry. *Five hours a week.* Spring term, first ten weeks. Professor Hart; Mr. Lambert; Mr. Buck; Mr. Conner.

Courses 2, 4, and 1 or 19, are required of all candidates for the Bachelor's degree.

Ms 5. **Analytic Geometry.**—A brief study of the point, right line, and conic sections. For students in other than engineering courses who do not intend to elect mathematics beyond course 7. Open to students that have taken courses 2 and 4.

The text-book is Wentworth's Analytic Geometry. *Two hours a week.* Fall term. Mr. Buck.

Ms 6. **Analytic Geometry.**—A more extended course. The straight line; conic sections; transformation of coördinates; equation of the second degree; higher plane curves; introduction to solid analytic geometry. Open to students that have taken courses 1, 2 and 4.

The text-book is Ashton's Analytic Geometry. *Five hours a week.* Fall term. Professor Hart; Mr. Lambert; Mr. Buck.

Ms 7. **Calculus.**—Differentiation of the elementary forms of algebraic and transcendental functions; successive differentiation; differentials; integration of the elementary forms; integration between limits; integration as a summation; various methods of integration. Open to students that have taken courses 1, 2, 4, and 5 or 6.

The text-book is Hall's Differential and Integral Calculus, *Five hours a week.* Spring term. Professor Hart; Mr. Lambert; Mr. Buck.
Ms 8. Calculus.—A continuation of course 7. Applications of differential and integral calculus. *Three hours a week.* Fall term. Professor Hart; Mr. Lambert; Mr. Buck.

Ms 9. Descriptive Astronomy.—The text-book is supplemented by informal lectures, and illustrated by lantern slides, the Trouvelot drawings of celestial objects, and work in the observatory. Open to students that have taken courses 1, 2, 4, and, preferably, Ps 1 and Ps 5. The text-book is Young's Manual of Astronomy. *Three hours a week.* Fall term. Professor Hart.

Ms 10. Practical Astronomy.—A course arranged to meet the needs of engineering students, and consisting largely of problems in the conversion of time, the determination of terrestrial latitudes and longitudes, and the establishment of meridian lines. The data for these problems are taken largely from the students' own observations, and the course is intended to emphasize the necessity of careful work in the field, as well as accurate and well arranged computations. The instruments employed are the sextant, artificial horizon, portable chronometer, theodolite, and vertical circle. Open to students that have taken courses 9, 4 and 19. *Two hours of recitations or lectures and two hours of observatory work a week.* Spring term. Professor Hart.

Ms 11. Advanced Algebra.—Determinants and the solution of higher equations. Open to students that have taken courses 1, 2 and 4. *Three hours a week.* Spring term. Mr. Buck.

Ms 12. Advanced Integral Calculus.—A course based upon Byerly's Integral Calculus. Open to students that have taken courses 6, 7 and 8. *Three hours a week.* Given in the fall term of odd years. Professor Hart.

Ms 13. Advanced Integral Calculus.—A continuation of course 12. *Two hours a week.* Given in the spring term of even years. Professor Hart.

Ms 15. Differential Equations.—The text-book is Murray's Differential Equations. Open to students that have taken courses 7 and 8. *Two hours a week.* Given in the spring term of odd years. Professor Hart.
Ms 16. **Practical Astronomy.**—The theory and use of the sextant, universal instrument, transit, and equatorial. Open to students that have taken courses 6, 7, 8, 9, 19, and, preferably, 10. *Three hours a week.* Given in the fall term of odd years. Professor Hart.

Ms 17. **Practical Astronomy.**—A continuation of course 16. *Three hours a week.* Given in the spring term of even years. Professor Hart.

Ms 19. **Spherical Trigonometry.**—A continuation of course 4, with additional problems and applications to spherical astronomy. *Five hours a week.* Spring term, last eight weeks. Professor Hart; Mr. Buck. [Omitted in 1903-1904.]

Ms 20. **Solid Analytical Geometry.**—Lectures based on C. Smith's Solid Geometry. *Three hours a week.* Given in the fall term of even years. Professor Hart.

**Physics**

Professor Stevens; Mr. Burbank; Mr. Bowen.

Ps 1. **General Physics.**—Lectures on the dynamics of solids, liquids and gases; sound and light; experiments before the class; problems. *Five hours a week.* Fall term. Professor Stevens; Mr. Burbank.

Open to students that have taken Ms 4.

Ps 2. **General Physics.**—A continuation of course 1; heat and electricity. *Three hours a week.* Spring term. Professor Stevens; Mr. Burbank.

Ps 3. **Elementary Physics.**—A non-mathematical course, covering the ground of course 1. The recitations are supplemented by lectures and experimental demonstrations. The text-book is Wentworth and Hill's Physics. *Four hours a week.* Spring term. Mr. Bowen.
Ps 5. Laboratory Physics.—The subject usually included in an under-graduate course. Special attention is given to the reduction of observations, and the tabulation of results. *Four hours a week.* Spring term. Mr. Burbank; Mr. Bowen.

Open to students that have taken either course 1 or course 12.

Ps 6. Laboratory Physics.—A brief course for students in the short course in pharmacy. *Two hours a week.* Spring term. Mr. Bowen.

Ps 7. Advanced Optics.—Lectures in continuation of course 1, based chiefly upon Preston's Light and Drude's Optics. *Three hours a week.* Spring term. Professor Stevens.

Open to students that have taken Ms 8.

Ps 8. Advanced Physics.—One course in advanced physics is offered each year. This year a lecture course in Meteorology is given. *Two hours a week.* Fall term. Professor Stevens.

Open to students that have taken Ms 8.

Ps 9. Laboratory Physics.—General laboratory work in continuation of course 5. *Six hours a week.* Fall term. Professor Stevens.

Ps 10. Laboratory Physics.—Advanced laboratory work in optics, in continuation of course 9. *Four hours a week.* Spring term. Professor Stevens.

Ps 11. Electrical Measurement and Testing.—The measurement of resistance, potential, current and capacity; the testing of galvanometers, etc. The charge for this course is $2.50. *Six hours a week.* Fall term. Mr. Burbank; Mr. Bowen.

Ps 12. General Physics.—A course covering the ground of course 1, with more attention to the experimental and historical aspects, and less to the mathematical.

The text-book is Gage's Principles of Physics. *Five hours a week.* Fall term. Mr. Bowen.
Ps 14. **Theory of Electrical Instruments.**—Lectures on the mathematical theory of instruments, and the methods of eliminating errors. *One hour a week.* Fall term. **Professor Stevens.**

Ps 15. **Laboratory Physics.**—A special course, open to students that have completed courses 9, 10 and 11. A subject is assigned for original investigation, or the work of a published research is repeated. *†Four hours a week.* Fall term. **Professor Stevens.**

Ps 16. **Laboratory Physics.**—A continuation of course 15. *†Six hours a week.* **Professor Stevens.**

Ps 17. **Electrochemistry.**—A lecture course on the modern theory of electrolysis and some of its practical applications. Attention will be given to the theory of battery cells, to the application of electrolysis in mining and purification of metals, and other commercial applications. The lectures are supplemented by references. *Three hours a week.* Spring term. Mr. **Burbank.**

Open to students that have taken Ps 5 and Ch 2.

Ps 18. **Electricity and Optics.**—Experiments selected from courses 10 and 11 to meet the needs of students in chemistry. *†Four hours a week.* Fall term. Mr. **Burbank.**

**CHEMISTRY**

**Professor Aubert; Professor Woods; Professor Merrill; Mr. Davis; Mr. Reed; Mr. Soper.**

Ch 1. **General Chemistry.**—Recitations and lectures on the general principles of chemistry, illustrated by charts, experiments, etc. To obtain credit for this course, it must be accompanied by course 3, and followed by courses 2 and 4, unless a special excuse is obtained.

The text-book is Remsen's Introduction to the Study of Chemistry. *Two hours a week.* Fall term. Mr. **Davis.**

Ch 2. **General Chemistry.**—A continuation of course 1. *Three hours a week.* Spring term. Mr. **Davis.**
Ch 3. Laboratory Chemistry.—Practical work to accompany course 1. The text-book is Remsen and Randall's Chemical Experiments. Two hours a week. Fall term. Mr. Davis.

Ch 4. Laboratory Chemistry.—A continuation of course 3, to accompany course 2, with elementary Qualitative Analysis for those who advance far enough. Two hours a week. Spring term. Mr. Davis.

Ch 5. Advanced Inorganic Chemistry.—Lectures and recitations, illustrated by specimens. The text-book is Richter's Inorganic Chemistry. Two hours a week. Fall term. Professor Aubert; Mr. Soper. No credit is given unless course 6 is taken, except by special arrangement. Open to students that have taken courses 1, 2, 3 and 4.

Ch 6. Advanced Inorganic Chemistry.—A continuation of course 5. Three hours a week. Spring term. Professor Aubert; Mr. Soper.

Ch 7. Elementary Organic Chemistry.—The marsh gas series. Lectures and recitations, illustrated by specimens. The text-book is Remsen's Organic Chemistry. Three hours a week. Fall term. This course must be followed by course 8, and preceded by courses 1, 2, 3, 4, 5 and 6, except for those specially admitted. Professor Aubert; Mr. Soper.

Ch 8. Elementary Organic Chemistry.—The unsaturated compounds and the benzene series. A continuation of course 7. Three hours a week. Spring term. Professor Aubert; Mr. Soper.

Ch 12. Chemical Preparations.—The preparation and purification of typical organic and inorganic substances. Open to students that have taken courses 1, 2, 3, 4, 5, 6, 7 and 8. Textbook, Aubert's Organic and Inorganic Preparations. Five hours a week. Fall term. Professor Aubert.

Ch 14. Qualitative Analysis.—A laboratory study of the chief elements and their derivatives with a view to a clear understanding of their properties. Supplemented by class room work. The text used is Dennis and Whittlesey's Qualitative Chemical Analysis. Not less than eight hours per week, unless by special arrangement. Fall term. Open to students that have taken courses 1, 2, 3 and 4, except for students in the Short Pharmacy Course. It is generally advised that course 5 be taken with this course, and it must be followed by course 15. Mr. Reed.

Ch 15. Qualitative Analysis.—A continuation of course 14 with the application of analytical methods to the determination of unknown substances of increasing complexity. Elementary analysis by means of the spectroscope is given. Course 6 is usually an accompanying study, except for students in the Short Pharmacy Course. Time, the same as course 14. Spring term. Mr. Reed.

Ch 16. Quantitative Analysis.—Gravimetric determinations. The text is Appleton's Quantitative Analysis. Not less than eight hours per week, unless by special arrangement. For satisfactory preparation, the student should have taken courses 1, 2, 3, 4, 14 and 15; and he should add 18 and 19. Professor Aubert and Mr. Soper.

Ch 18. Quantitative Analysis.—Analysis of complex alloys, minerals, etc. The text used is Clowes and Coleman's Quantitative Analysis. Not less than eight hours per week, unless by special arrangement. Fall term. Open to students that have taken Ch 16 and its requirements. Professor Aubert.

Ch 19. Volumetric Analysis and Assaying.—Acidimetry, alkalimetry, oxydimetry; gold and silver assaying. Text, time, and general requirements the same as for course 18. Professor Aubert.

Ch 20. Agricultural Analysis.—The analysis of fodders, fertilizers, milk, and other products. The methods are those recommended by the Association of Official Agricultural Chemists. Except in special cases, the time and requirements are the same as for course 18. Professor Aubert.
Ch 21. TOXICOLOGY AND URINALYSIS.—The determination of the more common poisons; the analysis of urine. Text, Aubert’s Urinalysis and Toxicology. Time, and general requirements, the same as in course 18. PROFESSOR AUBERT.

Ch 22. THESIS WORK.—The Thesis must embody the result of original work in analysis or research. *Fifteen hours a week for eleven weeks.* Spring term. Open to students that have taken courses 1, 2, 3, 4, 5, 6, 7, 8, 12, 14, 15, 16, 18, 19, 20, 21, 23, 24 and 28. PROFESSOR AUBERT.

Ch 23. ORGANIC CHEMISTRY.—An advanced course. Textbook, Joannis’ Cours de Chimie Organique, Vol. III. *Three hours a week.* Fall term. PROFESSOR AUBERT.

Ch 24a. INDUSTRIAL CHEMISTRY.—General processes of technical chemistry, and selected topics, including the principal manufactured products of special interest. Lectures and recitations. Text-books, Thorp’s Outlines of Industrial Chemistry and Fischer’s Lehrbuch der Chemischen Technologie. *Two hours a week.* Fall term. Open to students that have completed courses 5, 6, 7 and 8. PROFESSOR AUBERT.

Ch 24b. INDUSTRIAL CHEMISTRY.—A continuation of course 24a. *Two hours a week.* Spring term. PROFESSOR AUBERT.

Ch 25a. TECHNICAL ANALYSIS.—An advanced course in analysis of ores and industrial products. Open to students that have completed courses 16, 18, 19, and their requirements. *Five hours a week.* Fall term. PROFESSOR AUBERT.

Ch 25b. TECHNICAL ANALYSIS.—Organic technical products, and advanced mineral analysis. *Five hours a week.* Spring term. PROFESSOR AUBERT.

Ch 26. PHYSICAL CHEMICAL METHODS.—The determination of molecular weights by the vapor density, boiling point, and freezing point methods. The use of the refractometer and the polariscope. *Five hours a week.* Spring term. PROFESSOR AUBERT.
Ch 27. Laboratory Physiological Chemistry.—Qualitative tests of fats, carbohydrates, protein, blood, milk, etc. The text is Novy's Physiological Chemistry. †Ten hours a week for nine weeks. Fall term. Professor Jackman.

Ch 28. Dyeing.—The practical application of dyes to cotton, wool and silk. †Fifteen hours a week for two weeks. Spring term. Professor Aubert.

Ch 29. Agricultural Chemistry.—A course on the chemistry of soils and fertilizers. It includes the relation of soils to heat and moisture; the mechanical condition of soils best suited to plant growth, and the objects to be gained by cultivation; the origin, composition, preparation and use of commercial fertilizers; the supply, composition, care and use of farm manures, and the general considerations which pertain to the maintenance of soil fertility. Two hours a week. Given in the spring term of even years. Open to students that have completed courses 1, 2, 3, and 4. Professor Woods.

Ch 30. Biological Chemistry.—Lectures and recitations on the composition of the air, soils, natural waters, and plants; the source and assimilation of plant food; the composition of the animal body and of food materials; the chemical changes involved in the digestion and assimilation of food; the chemistry of milk and dairy products; and the chemical processes and methods of investigation by which these subjects are studied. Five hours a week. Fall term. Professor Merrill.

BIOLOGY

Professor Drew; Professor Russell; Professor Munson; Professor Merrill; Mr. Cummings.

The subjects given below are arranged numerically, but not in the order in which it is best for students to pursue them. It is desirable that all intending to take biology should begin with courses 1 and 2. These followed by course 9 count one credit.

Bl 1. General Biology.—This course is devoted to the study of the general principles of biology as illustrated by a few forms of plants and animals. It is open to all students and should form
the basis for other biological work. It is to be taken in connection with course 2. *Two hours a week.* Fall term. Professor Drew.

**Bl 2. Laboratory Biology.**—To be taken in connection with course 1. *†Two hours a week.* Fall term. Professor Drew.

**Bl 3. Cryptogamic Botany.**—Type forms of flowerless plants are studied in the laboratory and in the field. Attention is given to their relation to other forms, their structures and their life histories. This course should be preceded by courses 1 and 2. *†Four hours a week.* Given in the fall term of odd years. Professor Drew.

**Bl 5. Zoology (Invertebrate animals).**—Representatives of the invertebrate groups of animals that are studied in the laboratory, class-room and field, where attention is given to their habits, comparative anatomy, and to some extent to their embryology and classification. This course is to be taken in connection with course 6 and is not complete without courses 7 and 8. Courses 1 and 2 are required as a preparation. *Two hours a week.* Fall term. Professor Drew.

**Bl 6. Laboratory Zoology.**—To be taken in connection with course 5. *†Six hours a week.* Fall term. Professor Drew.

**Bl 7. Zoology (Vertebrate animals).**—A continuation of course 5. Types of the vertebrates are studied and their structures compared. A few weeks are devoted to the embryology of the frog. This course is to be taken in connection with course 8. It must be preceded by courses 1, 2, 5 and 6. *Two hours a week.* Spring term. Professor Drew.

**Bl 8. Laboratory Zoology.**—To be taken in connection with course 7. *†Six hours a week.* Spring term. Professor Drew.

**Bl 9. Physiology.**—Attention is given to the physiological activities of the human body, with enough anatomy to render the physiological discussions intelligible, and enough hygiene to serve as a guide for the intelligent care of the body. It is recommended that this course be preceded by courses 1 and 2. *Two hours a week.* Spring term. Professor Drew.
Bl 11. Entomology.—Insects are studied with special reference to their habits, life-histories and structure. Attention is given to their economic importance, and the methods of controlling them. *Four hours a week.* Given in the fall term of even years. Professor Drew.

Bl 13. Geology.—A study of the structure and history of the earth, and the processes by means of which geological changes are brought about. *Three hours a week.* Fall term. Professor Drew.

Bl 14. Advanced Zoology or Botany.—This course offers an opportunity for special biological work along lines best suited to the future plans of the student. It may consist of field work, laboratory work, or reading, or a combination of all three. *The time varies and the work may be continued a number of terms.* Fall and spring terms. Professor Drew.

Bl 15. Veterinary Science.—Lectures, demonstrations and clinics, illustrated by models, natural preparations, and living animals. *Three hours a week.* Given in the spring term of even years. Professor Russell.

Bl 16. Animal Anatomy.—A laboratory course intended to make the student familiar with the location and appearance of the organs of the bodies of our domestic animals. *Ten hours a week for nine weeks.* Given in the spring term of odd years. Professor Russell.

Bl 17. Bacteriology.—An elementary laboratory course, including the preparation of culture media and a critical study of the morphological and biological characteristics of a few typical bacteria. Students in agriculture give special attention to the bacteriology of the dairy. *Ten hours a week for nine weeks.* Spring term. Professor Russell.

Bl 18. Animal Histology.—A laboratory course in normal animal histology. Starting with perfectly fresh material, the work consists in the preparation, hardening, embedding, cutting, staining and mounting of the various normal tissues and organs of animals. *Ten hours a week for nine weeks.* First part of spring term. Professor Russell.
BL 19. LABORATORY BACTERIOLOGY.—An advanced course. *Ten hours a week for nine weeks.* Spring term. PROFESSOR RUSSELL.

Ch 30. BIOLOGICAL CHEMISTRY.—For description of this course see p. 76. *Five hours a week.* Fall term. PROFESSOR MERRILL.

Ht 1. GENERAL BOTANY.—For description of this course see p. 82. *Four hours a week.* Spring term. PROFESSOR MUNSON; MR. CUMMINGS.

Ht 2. HISTOLOGY OF PLANTS.—For description of this course see p. 82. *Four hours a week.* Spring term. MR. CUMMINGS.

Ht II. PLANT BREEDING.—For description of this course see p. 83. *Three hours a week.* Given in the spring term of odd years. PROFESSOR MUNSON.

AGRICULTURE

PROFESSOR HURD.

Ag 1. CROPS AND CROP PRODUCTION.—Lectures and recitations, beginning with the fundamental principles of agriculture. The essential elements of plant food; where and how these are obtained. A short study of the formation of soils and of the agencies still at work in their formation. The different soils and their relation to the crops. The factors determining fertility, and the physical properties of ideal soils. The conservation of soil moisture. The objects, benefits, and methods of tillage. The rotation of crops, and agricultural importance of same. The preparation of land for crops. The history, distribution, chief characteristics, uses, and adaptability of the principal farm crops. The best methods of producing them; a study and treatment of the injurious insects and diseases affecting them. The harvesting, marketing, and storing of crops.

This course is supplemented by laboratory and field work, the student being required to take part in, as well as observe, the various operations necessary to care for, and produce a crop. *Three hours a week.* Fall term.
Ag 2. **FARM MANAGEMENT AND OPERATIONS.**—Lectures and laboratory work in the keeping of farm accounts, the planning of the coming season's work, the management of men and teams, and the estimated cost of the different operations. *Four hours a week.* Fall term.

Ag 3.—A continuation of course 1. *Three hours a week.* Spring term.

Ag 4. **AGRICULTURAL ENGINEERING.**—Farm surveying and drainage. The plotting of farms and the measurement of land. Conditions requiring, necessity for, and advantages of drainage. Levelling for drains. Tile vs. surface drainage; estimating size of tile required, cost of drain, etc. The making of roads, with practical field work in the laying of drains and the construction of roads on the college farm.

Farm mechanics: A study of some of the simpler laws of mechanics used in operating farm implements; the principles of draft; the handling in the field, taking apart, and putting together of the implements in possession of the college. The relative merits of wind, steam, gasolene, and electricity as a means of furnishing power. The construction and ventilation of farm buildings. *Four hours a week.* Spring term.

Ag 5. **ADVANCED AGRICULTURE.**—Elective advanced work for those who have completed the required work of the first three years. Lectures and recitations along lines of Experiment Station work. The application of plant breeding to the improvement of farm crops. The student will carry out original investigations along some chosen line under the direction of the instructor. *Time to be arranged.*

Ag 6. **ADVANCED AGRICULTURE.**—A continuation of course 5. *Time to be arranged.*

**ANIMAL INDUSTRY**

**Professor Gowell.**

An 1. **ANIMAL BREEDING.**—Lectures and recitations on the principles of breeding, including heredity, atavism, variation, prepotency, in-breeding, line-breeding and cross-breeding.
Studying the histories, development and economic values of the different classes and breeds of cattle and horses. *Three hours a week.* Fall term.

An 2. **Laboratory Animal Breeding.**—Handling and judging cattle and horses in the barns and laboratory. Studying the different breeds; practice in the use of score cards in judging animals. *Four hours a week.* Fall term.

An 3. **Animal Breeding.**—A continuation of course 1. Sheep, swine and poultry breeding; the handling and care of breeding and growing animals; the adaptation of the different breeds to prevailing conditions—judging by score cards; the use of incubators and brooders.

The work consists of lectures and recitations, with laboratory exercises in the animal and poultry quarters. *Three hours a week for four weeks.* Spring term.

An 4. **Animal Feeding.**—Food requirements of different kinds of animals. Compositions of foods and the nutrients furnished by them; feeding formulas; calculating rations; valuation of foods; pasturing; soiling; methods of feeding. *Three hours a week for six weeks.* Spring term.

An 5. **Dairying.**—Lectures and recitations upon the composition and formation of milk; its sanitary production; aeration; pasturization; sterilization; creaming, fermenting; the manufacture of butter and cheese. *Three hours a week for six weeks.* Spring term.

An 6. **Laboratory Dairying.**—Practice in handling and testing milk and cream for acidity and solids; curing cream; making butter and cheese; operating dairy machinery. *Ten hours a week for six weeks.* Spring term.

An 7. **Animal Industry.**—A study of investigations in breeding, feeding, dairying and poultry management made at the Experiment Stations of the country; and the practical application of the findings to the everyday work of the department. *The time varies.* Fall term.

HORTICULTURE

Professor Munson; Mr. Cummings.

Ht 1. General Botany.—The structure and functions of the organs of plants; the development and relationship of the leading groups; plant societies; plant distribution; fertilization. Lectures, text book, and laboratory work. †Four hours a week. Spring term. Professor Munson; Mr. Cummings.

Ht 2. Histology of Plants.—A description and comparison of tissues, and studies of the minute anatomy of plants. Open to students that have taken course 1. Lectures and laboratory investigations. †Four hours a week. Spring term. Mr. Cummings.

Ht 3. Fruit Growing.—The principles and practice of growing fruits, including a discussion of climatic conditions, soils, culture, pruning, harvesting, marketing, etc. Lectures and text-book. Two hours a week. Fall term. Professor Munson.

Ht 4. Vegetable Gardening.—The principles and practice of growing vegetables. The culture of the leading garden vegetables in the field and under glass; truck farming; market and home gardening; requisites and returns. Lectures and text-book.

Two hours a week. Spring term. Professor Munson.

Ht 5. Laboratory Horticulture.—Practical work in orchard and gardens supplementing course 3. A study of soils; cover crops; harvesting, storing and marketing fruits; pruning; winter protection, and other similar operations. †Four hours a week. Fall term. Professor Munson; Mr. Cummings.

Ht 6. Laboratory Horticulture.—A continuation of course 5. Greenhouse work; propagation of plants; a study of seeds; making hot-beds; preparing and planting the garden; excursions to neighboring market gardens. †Four hours a week. Spring term. Professor Munson; Mr. Cummings.

Ht 7. Landscape Gardening.—The principles of landscape art and their application to rural conditions; selection of site; arrangement and construction of walks and drives; grading;
planting trees; rural school yards and cemeteries; the making of plans for the improvement of home grounds. One hour a week. Spring term. Professor Munson.

Ht 8. Systematic Pomology.—Lectures and critical studies of the leading natural groups of fruits. One hour a week. Given in the fall term of even years. Professor Munson.

Ht 9. Laboratory Horticulture.—Greenhouse construction and management; studies of the literature of horticulture; investigation of assigned topics. *Four hours a week.* Given in the fall term of even years. Professor Munson.

Ht 10. Laboratory Horticulture.—A continuation of course 9. Studies of plant diseases; economic botany; original investigations of assigned topics. *Four hours a week.* Given in the spring term of odd years. Professor Munson; Mr. Cummings.

Ht 11. Plant Breeding.—The origin, distribution and variation of cultivated plants; studies in heredity; the production of improved types. Open to students that have taken course 1. Lectures and investigations. Three hours a week. Given in the spring term of odd years. Professor Munson.

Ht 12. Horticultural Investigations.—Advanced work for those desiring to become teachers or investigators. Open to seniors or to graduate students. *Time to be arranged.* Professor Munson.

**FORESTRY**

**Professor Spring.**

Fy 1. General Forestry.—The importance and scope of the subject; direct and indirect value of the forest; relation of the forest to the State; relation of forestry to the other sciences, and of the individual branches of forestry to each other; forestry in the United States. *Three hours a week.* Fall term. To be given also in the spring term of 1904.

Fy 2. Forest Botany.—A study of the morphology and functions of the organs of trees; the development of the tissues of woody plants; a systematic account of the trees of the United
States, with special reference to those of commercial value. Open to those who have taken Ht 1; to be taken in connection with course 4. *Two hours a week.* Fall term.

**Fy 3. Forest Botany.**—A continuation of course 2. To be taken in connection with course 5. *Two hours a week.* Spring term.

**Fy 4. Forest Botany, Field and Laboratory Work.**—Excursions to identify and classify the trees and principal shrubs about Orono. Microscopic work in the study of structure and development of the organs of trees. *†Four hours a week.* Fall term.

**Fy 5. Forest Botany, Field and Laboratory Work.**—A continuation of course 4. *†Four hours a week.* Spring term.

**Fy 6. Silviculture.**—A study of the facts which concern forest growth in the relation of the tree to external influences; characteristics of the forest, and of the forest regions of the United States; systems of reproducing forests naturally; thinnings and improvement cuttings. To be taken in connection with course 8. Open to those who have taken courses 2, 3, 4 and 5. *Two hours a week.* Fall term.

**Fy 7. Silviculture.**—A continuation of course 6. To be taken in connection with course 9. *Two hours a week.* Spring term.

**Fy 8. Silviculture, Field Work.**—Special studies and practical work in the forest. *†Eight hours a week the first half of the fall term.*

**Fy 9. Silviculture, Field Work.**—A continuation of course 8. *†Ten hours a week, the last half of the spring term.*

**Fy 10. Forest Measurements.**—The determination of the contents of felled and standing trees and of the whole forest on a tract; methods of measurement in use in the United States; calculation of rate of growth; construction of volume and yield tables. To be taken in connection with course 11. *Two hours a week.* Fall term. Open to those who have taken Ms 1, 2 and 4.
Fy 11. Forest Measurements, Field Work.—Practice in taking measurements, and office work in computing the results. *Five hours a week.* Fall term.

Fy 12. Lumbering.—The industry considered from an economic standpoint; an account of the methods of lumbering in the different parts of the United States. In connection with this course the student is expected to spend two weeks in a lumber camp and prepare a written report on the operations of lumbering in that locality. *One hour a week.* Fall term. One-half credit is allowed for the time spent in the lumber camp and in preparing the report. Open to students taking forestry as a major subject.

Fy 13. Forest Management.—Financial and economic considerations; the normal forest; principles and preparation of working plans. *Two hours a week, the first half of the spring term.* Open to those who have taken courses 6, 7, 8, 9, 10 and 11.

CIVIL ENGINEERING

Professor Boardman; Mr. Hamlin; Mr. Simpson.

Ce 1. Plane Surveying.—Recitations on the general principles of plane surveying, the laying out of land, the dividing of land, surveying of public lands, direct leveling, and the variation of the magnetic needle.

The text-book is Raymond’s Surveying. *Two hours a week.* Spring term. Mr. Hamlin; Mr. Simpson.

Ce 2. Field Work in Surveying.—The use of the chain, compass, transit, and level. Instruments are adjusted, original surveys made, and old lines retraced. Plats are prepared of the surveys made in the field. The text-book is Field Manual by Pence and Ketchum. *Four hours a week.* Spring term. Mr. Hamlin; Mr. Simpson.

Ce 3. Railroad Curves and Earthwork.—Lectures and recitations on the theory of railroad curves, switches, turnouts, slope stakes and the calculation of earthworks.

The text-book is Allen’s Railroad Curves and Earthwork. *Three hours a week.* Fall term. Professor Boardman; Mr. Hamlin.
Ce 4. **Railroad Work.**—The location and detailed survey of a railroad several miles long. The curves are laid out, levels taken, and all the necessary measurements made to enable the student to compute the excavations and embankments and estimate the cost of construction. *Six hours a week.* Fall term. Mr. Hamlin; Mr. Simpson.

Ce 5. **Highway Engineering.**—The location, construction, and improvement of country roads under different conditions of soil, climate, and traffic. *One hour a week.* Fall term. Mr. Simpson.

Ce 6. **Mechanics.**—The principles of statics; the algebraic and graphic solution of statical problems, including simple trusses; exercises in finding the moment of inertia, center of gravity; the principles of dynamics, shearing force and bending moment. *Five hours a week.* Fall term. Mr. Jewett.


Ce 8. **Sanitary Engineering.**—Drainage of land; plumbing of houses; drainage and sewerage of towns; sewage disposal; water supply and purification; ventilation of houses.

The text-book is Folwell's Sewerage. *Two hours a week.* Given in the spring term of odd years. Professor Boardman.

Ce 9. **Higher Surveying.**—The plane table, stadia measurements, topographical surveying, the elements of geodesy, the measurement of base lines, calculation of a system of triangulation. *Ten hours a week for eight weeks.* Spring term. Professor Boardman; Mr. Hamlin; Mr. Simpson.

Ce 10. **Hydraulics.**—The weight, pressure and motion of water; the flow of water in open channels, mains, and distribution pipes; distribution systems, the construction of water works for towns and cities.

The text-book is Merriman's Hydraulics. *Three hours a week.* Spring term. Mr. Hamlin.
Ce 11. HYDRAULICS FIELD WORK.—The measurement of the flow of rivers is illustrated by the application of the current meter and the various forms of floats to the Penobscot river or some of its large branches. †Ten hours a week for six weeks. Fall term. PROFESSOR BOARDMAN; MR. HAMLIN.

Ce 12. STRUCTURES.—A detailed study of the properties of materials used in engineering structures; their resistance to bending, breaking, extension and compression, under the various conditions of practice; the theory of stresses in framed structures; the usual systems of loading; the principles of designing. Five hours a week. Fall term. PROFESSOR BOARDMAN.

Ce 13. STRUCTURES.—A continuation of course 12; including the study of problems in connection with masonry structures; natural and artificial foundations; the stability of dams and retaining walls; the designing of bridge piers and abutments; the theory of the masonry arch. Five hours a week. Spring term. PROFESSOR BOARDMAN.

Ce 14. DESIGNING.—Designs for several of the common types of wooden and steel structures, and preparation of drawings for the shop. †Ten hours a week for twelve weeks. Fall term. PROFESSOR BOARDMAN; MR. SIMPSON.

Ce 15. DESIGNING AND THESIS WORK.—A continuation of course 14 and the preparation of a thesis. †Fifteen hours a week. Spring term. PROFESSOR BOARDMAN; MR. SIMPSON.

Ce 18. SANITARY SCIENCE.—Lectures on the causes and prevention of disease, sanitation and the public health, and the relations of the engineer to this work. One hour a week. Fall term. MR. HAMLIN.

Ce 19. RAILROAD ENGINEERING.—An advanced course discussing the economics of railroad location, also the subjects of brakes, signals, rolling-stock, yards, stations, etc. Two hours a week. Given in the spring term of even years. PROFESSOR BOARDMAN. Open to students that have taken course 3.
MECHANICAL ENGINEERING.

Professor Walker; Mr. Steward; Mr. Jewett; Mr. Cole; Mr. Davee.

Me 1. Wood Work.—The care and use of tools; joinery; wood turning; pattern making. Charge for material, $4.00. †Four hours a week. Fall term. Mr. Davee.

Me 2. Forge Work.—Forging; welding; tool dressing. A set of lathe tools and cold chisels for use in machine work is made by each student. Charge for material, $5.00. Cost of hammer, calipers and scale, about $2.50. †Four hours a week. Spring term. Mr. Davee.

Me 3. Drawing.—Reading and tracing detail drawings and penciling simple details. Especial attention is given to lettering. †Two hours a week. Fall term. Mr. Jewett.

Me 4. Kinematics.—Motion in machine construction; links; gears; cams; belts. The text-book is Jones's Kinematics. †Six hours a week. Spring term. Mr. Jewett.

Me 5. Machine Work.—Exercises in filing and chipping; lathe work; exercises on planer, shaper and milling-machine; making of cut gears, machinist taps, etc. Charge for materials, $5.00 per term. Credit is given for work done in commercial shops on presentation of satisfactory proof. †Nine hours a week for Mechanical Engineering students. †Five hours a week for Electrical Engineering students. Fall and spring terms. Mr. Cole.

Me 6. Foundry Work.—Moulding; pouring, etc. Work in assigned in connection with Me 5. Mr. Steward.

Me 7. Valve Gears.—The steam engine valve motion, discussed by means of the Bilgram Diagram, with solution of practical problems in the drawing room. The text-book is Halsey's Valve Gears. †Four hours a week. Fall term. Mr. Steward.

Me 8. Machine Design.—(a) Proportioning machine parts for strength with special reference to the steam engine; laying

Two hours a week. Fall term. Mr. Jewett.

Me 10. FUELS.—Heating value, supply and distribution of various fuels; types of furnaces; methods of stoking. The text-book is Kent's Steam Boiler Economy.

Two hours a week. Fall term. Professor Walker.

Me 11. THERMODYNAMICS.—The laws of gases during heat interchanges, with applications to steam and other heat engines. The text-book is Reeves's Thermodynamics of Heat Engines.

Three hours a week. Fall term. Professor Walker.

Me 12. STEAM BOILER DESIGN.—Complete design of some type of steam boiler, worked up in drawing room. †Nine hours a week for regular students. †Six hours a week for students specializing in Marine Engineering. Fall term. Professor Walker; Mr. Steward.

Me 13. HYDRAULIC MACHINERY.—Theory of steam pumps, water motors and turbine water wheels, with practical problems in designing. †Four hours a week. Fall term. Mr. Steward.

Me 14. MARINE MACHINERY.—A course of descriptive lectures on the types and processes of construction of machinery commonly seen on steamships. Taken by students specializing in Marine Engineering. Two hours a week. Fall term. Professor Walker.

Me 15. MECHANICAL LABORATORY.—Testing materials, lubricants, steam boilers and engines, gasoline engines, etc. †Three hours a week. Fall and spring terms. Professor Walker; Mr. Jewett.
Me 16. **Steam Engine.**—A continuation of course 11, covering the methods of designing and testing. Lectures. *Two hours a week.* Spring term. **Professor Walker.**

Me 17. **Steam Engine Design.**—Detailed design of some type of steam engine, accompanying course 16. *Twelve hours a week for nine weeks.* Spring term. **Professor Walker; Mr. Steward.**

Me 18. **General Designing.**—Work as assigned. *Four hours a week.* Spring term. **Mr. Steward.**

Me 19. **Marine Engineering.**—The problem of ship propulsion and propeller design. Taken by students specializing in Marine Engineering. The text-book is Durand's Resistance and Propulsion of Ships. *Two hours a week.* Spring term. **Professor Walker.**

Me 20. **Estimates and Specifications.**—A short lecture course on forms of contracts and specifications, and methods of making cost estimates. *One hour a week.* Spring term. **Professor Walker.**

Me 21. **Seminary.**—General discussion of leading articles appearing in current engineering literature. *One hour a week.* Fall and spring terms. **Professor Walker.**

Me 22. **Thesis.**—The results of some investigation or design presented in proper form. The subject must be submitted at, or before, the close of the fall term. Students specializing in Marine Engineering submit their designs of steam machinery as a thesis. *Twelve hours a week for nine weeks.* Spring term. **Professor Walker.**

**ELECTRICAL ENGINEERING**

**Professor Webb; Mr. Arana.**

**Ee 1. Electricity and Magnetism.**—This course continues the subject of electricity and magnetism begun in physics. The work is taken up by text-book, lectures and problems. The text-book is Silvanus Thompson's Electricity and Magnetism. *Two hours a week.* Fall term. Required of juniors in Electrical Engineering. **Mr. Arana.**
Ee 2. Electricity and Magnetism and Dynamo Design.—A continuation of course 1, with the application of principles to the problems of dynamo design. The work is taken up by textbook, lectures and problems.


Ee 3. Electrical Machinery.—A course on the design and construction of direct current generators and motors. The work is taken by lectures and problems. *Five hours a fortnight.* Fall term. Required of seniors in Electrical Engineering. Professor Webb.

Ee 4. Alternating Current Machinery.—In this course are considered the principles involved in the design, construction and operation of alternating current generators, motors, transformers and rotary converters.

The text-book is Jackson’s Alternating Currents and Alternating Current Machinery. *Five hours a week for the first nine weeks.* Spring term. Required of seniors in Electrical Engineering. Professor Webb.

Ee 5. Design of Direct Current Machines.—This course is taken up in the drawing room. Each student is required to make the calculations and drawings of a direct current dynamo. *Five hours a week.* Fall term. Required of seniors in Electrical Engineering. Professor Webb.

Ee 6. Design of Alternating Current Machines.—A drawing room course similar to course 5. The calculations and drawings are made for an alternating current generator. *Five hours a week for nine weeks.* First half of spring term. Required of seniors in Electrical Engineering. Professor Webb.

Ee 7. Laboratory Work, Direct Currents.—Tests of electrical instruments. Experimental work with generators and motors. Power and photometric tests of electric lamps. Care and management of the college lighting plant. The charge for this course is $5. *Six hours a week.* Fall term. Required of seniors in Electrical Engineering. Mr. Arana.
Ee 8. Laboratory Work, Alternating Currents.—A course similar to course 7. Tests of alternating current instruments. Experimental work with generators, motors, transformers and rotary converters. *Five hours a week for nine weeks.* First half of spring term. The charge for this course is $2.50. Required of seniors in Electrical Engineering. Mr. Arana.


The text-book is Crocker’s Electric Lighting. *Two hours a week.* Fall term. Required of juniors in Mechanical Engineering. Mr. Arana.

Ee 10. Dynamo Laboratory Work.—Practice in the connecting and running of direct current generators and motors. Tests for regulation, heating, efficiency and insulation. *Five hours a week for nine weeks.* Offered for seniors in Mechanical Engineering. The charge for this course is $2.50. Mr. Arana.


Ee 16. Thesis Work.—The designing of electrical apparatus, laboratory investigation, or commercial testing, with results presented in proper form. *Fifteen hours a week for nine weeks.* Last half of spring term. Required of seniors in Electrical Engineering. Professor Webb.
DRAWING

Professor Boardman; Mr. Grover; Mr. Cole; Mr. Simpson.

Dr 1. Drawing.—Free-hand work in perspective and model drawing; lettering.
†Four hours a week. Fall term. Mr. Grover.

Dr 3. Mechanical Drawing.—Instruction and practice in the care and use of drawing instruments, in the drawing of geometrical problems, and in the use of water colors. The textbook is Cole’s Notes on Mechanical Drawing.
†Four hours a week. Spring term. Mr. Grover; Mr. Simpson.

Dr 4. Mechanical Drawing.—Problems in projections, shades and shadows, and dimension drawing.
†Four hours a week. Fall term. Mr. Simpson.

Dr 5. General Drawing.—Isometric and cabinet projections, perspective, and the preparation of working drawings. Lectures and exercises in the drawing room.
†Ten hours a week for five weeks. Spring term. Mr. Simpson.

Dr 6. Descriptive Geometry.—Elementary problems; tangents, intersection of planes, cylinders, cones, spheres, etc. The time is divided equally between the recitation room and drawing room.
The textbook is Church’s Descriptive Geometry. Two hours a week. Fall term. Mr. Cole.

Dr 7. Descriptive Geometry.—A continuation of course 6.
Two hours a week. Spring term. Mr. Cole.

Dr 8. Stereotomy.—The application of the methods of descriptive geometry to the preparation of drawings for arches, retaining walls, bridge abutments, piers, etc.
†Ten hours a week for five weeks. Spring term. Mr. Simpson.
PHARMACY

PROFESSOR JACKMAN.

Pm 1. ELEMENTARY PHARMACY.—The history of pharmacopoeias, dispensatories, etc.; weights and measures, specific gravity, the pharmaceutical uses of heat, distillation, solution, filtration, etc.; official preparations; pharmaceutical problems, involving percentage solutions, parts by weight and measure, chemical principles and equations, actual pharmacy operations.

The text-book is Caspari's Pharmacy. *Five hours a week.* Fall term.

Pm 2. GALENICAL PHARMACY.—The chemical elements, official salts, and inorganic acids, their preparation and classification; organic compounds, their classification, official preparations; official drugs of the materia medica, their preparations, animal preparations; extemporaneous pharmacy, the principles of dispensing, store management, etc.

The text-book is Caspari's Pharmacy. *Five hours a week.* Fall term.

Pm 3. LABORATORY PHARMACY.—Official preparations and tests. The operations of manufacturing pharmacy, including the preparation of granular and scale salts, infusions, syrups, tinctures, and other galenicals; official tests of chemicals, drugs, and preparations, for identity, strength and adulteration; drug assaying.

The text-books are Caspari's Pharmacy and the U. S. Pharmacopœia. *Twelve hours a week.* Fall term.

Pm 4. PHARMACOPŒIA.—A complete review of the pharmacopœia, with special reference to the chemical and pharmaceutical principles involved in tests and preparations.

The text-books are Caspari's Pharmacy and the U. S. Pharmacopœia. *Five hours a week.* Spring term.

Pm 5. INORGANIC PHARMACOGNOSY.—Nomenclature; practical exercises in the identification of specimens.

The text-book is the U. S. Pharmacopœia. *Two hours a week.* Fall term.
Pm 6. **Organic Pharmacognosy.**—Nomenclature; habitat, etc.; practical exercises.

The text-books are the U. S. Pharmacopœia and Maisch's Materia Medica. *Four hours a week.* Spring term.

Pm 7. **Materia Medica.**—Chemicals and drugs; their nature, uses, classification, therapeutic action, and doses; poisons, and antidotes.

The text-book is Potter's Materia Medica. *Three hours a week.* Fall term.

Pm 9. **Pharmacy Readings.**—Current pharmacy literature; research and reference readings; abstracting; reports. *†Five hours a week.* Spring term.

Pm 10. **Laboratory Pharmacy.**—A continuation of Pm 3. *†Five hours a week.* Spring term.

Pm 11. **Prescriptions.**—Critical examination of prescriptions from actual files, with reference to inelegance, and to physiological, pharmaceutical, and chemical incompatibility; doses; methods and order of compounding, etc.

The text-book is Ruddiman's Incompatibilities in Prescriptions. *Three hours a week.* Spring term.

---

**MILITARY SCIENCE AND TACTICS**

**Professor Symmonds.**

Each man student is required to take military drill, unless physically unfit, and to attend recitations in military science, during the first two years of his college course.

**Course of Instruction**

(a) **Practical:**

Infantry Drill Regulations, through the school of the battalion in close and extended order.

Advance and rear guards, and outposts.

Marches.
The ceremonies of battalion review, inspection, parades, guard mounting, and escort of the colors. Infantry target practice. Instruction in First Aid to the Injured.

(b) Theoretical:
The Infantry Drill Regulations covered by the practical instruction.
Small-arms Firing Regulations.
The Articles of War.
Enlistment and discharge papers, including descriptive lists.
Morning Reports.
Field and monthly returns.
Muster rolls.
Rosters.
Ration returns.
Requisitions.
Property returns.

Ten lectures each year on military subjects, notes to be taken by the students and to be made the basis of subsequent recitations.
ORGANIZATION OF THE UNIVERSITY

The University is divided into colleges, each offering several courses upon related subjects. The colleges are interdependent and together form a unit. The organization is as follows:

**College of Liberal Arts**
- The Classical Course
- The Latin-Scientific Course
- The Scientific Course

**College of Agriculture**
- The Agricultural Course
- The Horticultural Course
- The Forestry Course
- The Extension Courses
- The Agricultural Experiment Station

**College of Technology**
- The Chemical Course
- The Civil Engineering Course
- The Mechanical Engineering Course
- The Electrical Engineering Course
- The Mining Engineering Course

**College of Pharmacy**
- The Pharmacy Course
- The Short Course in Pharmacy

**College of Law**
COLLEGE OF LIBERAL ARTS

The aim of this college is to furnish a liberal education and to afford opportunity for specialization along literary, philosophical, and general and special scientific lines. The college comprises:

The Classical Course
The Latin-Scientific Course
The Scientific Course

The Classical Course
This course is planned for those who desire general culture, and is especially adapted to the needs of those intending to become teachers. During the freshman year Greek and Latin must be included in the required work stated on p. 49. After the freshman year the student may give special attention to language, mathematics, natural science, history, philosophy or any other subject offered to undergraduates.

At graduation the student receives the degree of Bachelor of Arts. Upon the completion of one year's prescribed graduate work in residence, or two years' in absence, including the presentation of a satisfactory thesis and examination at the University, he receives the degree of Master of Arts.

The Latin-Scientific Course
This course differs from the classical course by omitting Greek.

During the freshman year Latin must be included among the required studies. After the freshman year the student may give special attention to language, mathematics, natural science, history, philosophy, or any other subject offered to undergraduates.
At graduation the student receives the degree of Bachelor of Philosophy. Upon the completion of one year's prescribed work in residence, or two years' in absence, including the presentation of a satisfactory thesis and examination at the University, he receives the degree of Master of Philosophy.

The Scientific Course

This course is arranged for those who seek a broad general training, based largely upon the study of mathematics, science, and modern languages.

The required studies are stated on p. 49. The elective studies may be selected so as to give special attention to modern languages, mathematics, natural science, history, philosophy, or any subject offered to undergraduates.

At graduation the student receives the degree of Bachelor of Science. Upon the completion of one year's prescribed work in residence, or two years' in absence, including the presentation of a satisfactory thesis and examination at the University, he receives the degree of Master of Science.
COLLEGE OF AGRICULTURE

The College of Agriculture comprises the Departments of Agriculture, Horticulture, Forestry, Animal Industry, and the Agricultural Experiment Station, and includes special courses in Agricultural Chemistry, Biological Chemistry, and Veterinary Science. The aim of this college is to prepare young men to become farmers or teachers, or investigators of agricultural subjects. Students in this college are not charged tuition.

The work of instruction and investigation is organized as follows:

THE COLLEGE COURSES

The Agricultural Course
The Horticultural Course
The Forestry Course
The Special Course in Agriculture and Horticulture

THE EXTENSION COURSES

The School Course in Agriculture
The Winter Courses in Agriculture, Horticulture and Dairying
The Short Course in Horticulture and Poultry Management.
The Correspondence and Lecture Courses

THE AGRICULTURAL EXPERIMENT STATION
The College Courses

The college courses are designed for those who wish to follow agriculture or horticulture as a business, or who purpose becoming teachers or investigators in related sciences. The instruction is arranged with a view to emphasizing fundamental principles and giving the student the largest amount of technical knowledge consistent therewith. To this end the theoretical instruction is associated with practical work and observation on the farm, in the orchard and garden, and in the various laboratories of the university; but time is not consumed in merely manual operations.

Certain studies are fundamental to all work in agricultural lines and these are included among the subjects required in the four years courses. After these fundamental subjects are completed, the fullest latitude is allowed for election.

At graduation the student receives the degree of Bachelor of Science. Upon the completion of one year's prescribed work in residence, or two years' in absence, including the presentation of a satisfactory thesis and examination at the University, he receives the degree of Master of Science.

The Agricultural Course

The course in Agriculture emphasizes technical training in the branches pertaining to general farming, stock raising, dairying, poultry industry, and agricultural chemistry. The entire agricultural equipment, including the farm, the barns, the dairy, the agricultural machinery, the poultry plant, the flocks and the herds, is used for instruction. The following subjects are included among those offered in this course, and students are advised to take them in the order given (see also p. 49):

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eh 1, 3 &amp; 4</td>
<td>English</td>
<td>1.6</td>
</tr>
<tr>
<td>Bl 1, 2 &amp; 4</td>
<td>Biology</td>
<td>1</td>
</tr>
<tr>
<td>Ag 1, 2, 3 &amp; 4</td>
<td>Agriculture</td>
<td>2</td>
</tr>
<tr>
<td>Ch 1, 2, 3 &amp; 4</td>
<td>Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>Dr 1</td>
<td>Free Hand Drawing</td>
<td>0.4</td>
</tr>
<tr>
<td>Bl 11</td>
<td>Entomology</td>
<td>0.4</td>
</tr>
<tr>
<td>Ht 1</td>
<td>Botany</td>
<td>0.4</td>
</tr>
</tbody>
</table>
SECOND YEAR

Ms 1, 2 & 4 ................................ Mathematics ........................................2 credits
Ch 14 & 15 ................................ Chemistry ..........................................1.2 credits
An 1, 2, 3, 4, 5 & 6 ... Animal Industry .........................2 credits
Eh 2 ........................................ English ..............................................0.4 credit
Rm 1 & 2 ........................................ French or }
Gm 1 & 2 ........................................ German. }

THIRD YEAR

Gm 1 & 2 ........................................ German or }
Rm 1 & 2 ........................................ French. }
Ht 3, 4, 5, 6 & 7 ........ Horticulture ..........................................2 credits
Ch 30 ........................................ Biological Chemistry .................................1 credit
Ch 29 ........................................ Agricultural Chemistry .....................0.4 credit
Bl 16 ...................................... Veterinary Science .................................0.6 credit

FOURTH YEAR

Agriculture, Horticulture or Animal Industry ........ 2 credits

The following subjects are included in a major in Agriculture:

Ag 1 to 6 ........ Agriculture ...............................................................4 credits
Ht 3 to 7 ........ Horticulture .............................................................2 credits
An 1 to 6 ........ Animal Industry ..........................................................2 credits
Ch 30 ........ Biological Chemistry .......................................................1 credit

The student who wishes to make Agricultural Chemistry a feature of his work should elect qualitative and quantitative analysis.

THE HORTICULTURAL COURSE

The course in Horticulture provides training in the theory and practice of fruit growing, general and ornamental gardening and in experimental methods. The greenhouses, gardens, orchards, nurseries and the university campus are freely used for purposes of instruction. The work required for graduation is practically the same as in the preceding course. Special attention, however, is given to related botanical and biological lines, as well as to technical horticultural subjects.

The following subjects are included in this major:
Physics, Cryptogamic Botany and Bacteriology are essential and should be elected as far as practicable by the student.

**The Forestry Course**

A complete undergraduate course in forestry is arranged, which may serve as the basis not only of practical work in forestry, but also of a liberal education. A knowledge of the principles of forestry in its different branches is given to the student, and some practical work is done in the forest. For students of agriculture this course offers work in silviculture which will give a training in the management of the farmer's woodlot.

When Forestry is taken as a major subject the following are requisite courses for receiving a degree at graduation:

- Ht 1 ........ Botany ......................................................... 0.4 credit
- Ht 2 ........ Histology of Plants ....................................... 0.4 credit
- Ht 3 to 12 .... Horticulture ............................................... 4 credits
- Ag 1 to 4 .... Agriculture ................................................... 4 credits
- Ch 30 .... Biological Chemistry ........................................... 1 credit
- Bl 1 and 2 .... Biology .................................................... 0.6 credit
- Bl 11 .... Entomology ..................................................... 0.4 credit

A written report on two weeks study of lumbering while in a lumber camp ........................................................ 5

In connection with forestry certain allied courses are essential and should be chosen with the advice of the professor,—Algebra, Solid Geometry and Plane Trigonometry; English Composition.
Rhetoric and English Literature; German or French; Physics, Chemistry, Biology, Zoology, Cryptogamic Botany, Histology of Plants, Geology, Soils; Plane and Higher Surveying; and Economics (see also p. 49).

The instruction in this department consists of lectures, recitations, laboratory and field work. The woodland belonging to the University, together with adjacent land covered by a young forest, furnishes a field for the study of many forest problems.

THE SPECIAL COURSE IN AGRICULTURE AND HORTICULTURE

The Special Course is designed for young men who cannot well spend four years in preparing themselves to become farmers, but who wish to secure special training in certain agricultural subjects. No fixed schedule of studies is prescribed, but students may elect along the lines of horticulture, or dairying, or general farm crops and farm management.

For admission to this course applicants must be at least eighteen years of age, and must have a good common school education. No formal entrance examinations are required, but students will be admitted, upon recommendation of the Dean of the Faculty, after the professor in charge of the work elected shall have satisfied himself of the fitness of each candidate to take the studies desired.

The annual expenses for courses of one year or more are the same as those of students in the four years courses. Tuition is free.

THE EXTENSION COURSES

The Extension Courses are designed to give in the shortest time possible at the University, or directly in the home, the best training in the practical business of agriculture and horticulture, and the greatest amount of knowledge that can be acquired in the time allotted. The extension courses include: The School Course; The Short Winter Course; The Short Course in Horticulture and Poultry Management; The Correspondence and Lecture Courses.
UNIVERSITY OF MAINE

THE SCHOOL COURSE IN AGRICULTURE

The School Course in Agriculture is a two years course designed to train young men and women who wish to become practical farmers, dairymen, or gardeners, but who can not devote time to high school and college training.

The School Course is distinctively extension work. While all of the agricultural equipment of the University will be used for purposes of instruction, the school classes are entirely separate and distinct from the college classes, and in no case will college credit be allowed for work done in the school.

Students not less than 15 years of age, who are prepared for advanced grammar or high school work, are eligible for registration in this course. The applicants must possess a knowledge of arithmetic, geography and English grammar.

Tuition is free and there are no fees of any kind; the chief cost of the course being for books and board.

The following subjects are taken up: English, Arithmetic and Bookkeeping; Garden and Orchard; Carpentry; Crops and Crop Production; Animal Industry; Dairying; Economic Entomology; Agricultural Chemistry; Farm Forestry; Farm Botany; Land Surveying; Business Law.

THE WINTER COURSES

The winter courses in Agriculture, Dairying and Horticulture are designed for practical farmers who wish to fit themselves to be managers of farms, creameries or cheese factories. Special emphasis is given to dairying, and if the course is pursued two terms, and two seasons' satisfactory work is performed in a butter or cheese factory, the student will be granted a certificate of proficiency.

These courses begin on Tuesday following the Christmas vacation and continue eight weeks.

The subjects taken up are: Chemistry of Plant and Animal Nutrition; Dairying; Dairy Practice; Feeds and Feeding; Breeds and Breeding; Crops and Crop Production; Bacteria of the Dairy; Diseases of Animals; Sheep Husbandry; Fruit Growing; Vegetable Gardening.
THE SHORT COURSE IN HORTICULTURE AND POULTRY MANAGEMENT

On the Tuesday following the close of the Winter Courses, the short course in Horticulture and Poultry Management begins. There is crowded into this short course all of the practical, helpful information possible. It is necessarily somewhat in the nature of an extended farmers' institute, and a special effort is made to outline future work for the students. The following subjects are taken up: Orchard Culture; Small Fruit Culture; Vegetable Gardening; Spraying; Insects and Plant Diseases; Breeds of Poultry; Egg Production; Buildings and Appliances; Incubation, Embryology. The afternoons are devoted to work in the orchard and greenhouses, in pruning, grafting, setting plants, making hot-beds and other practical subjects; or in the poultry houses and incubator rooms, in studying the breeding and handling of young chickens and growing fowl.

THE CORRESPONDENCE AND LECTURE COURSES

For those who are interested in improving the conditions of rural life, but who are unable to take regular work at the University, popular bulletins or suggestive papers are issued from time to time with the purpose in view of carrying directly to the home information which shall be of immediate value and shall emphasize the principles upon which agricultural practice is founded. These bulletins are suggestive rather than exhaustive; the object being to induce further study and to point to sources of information.

The bulletins will be sent to any individual who may desire them. Any town or community in the State which will organize a club of ten or more, or any grange which will take up systematic study and discussion of the topics, may receive the publications; and after a few weeks, if desired, an officer of the University will meet with such club or grange and discuss the questions that arise.

THE AGRICULTURAL EXPERIMENT STATION

The Maine Agricultural Experiment Station owes its existence to an act of Congress, approved March 2, 1887, popularly known as the Hatch Act. The act of the legislature accepting the congressional grant made the Station a department of the University of Maine.
The affairs of the Station are considered by an advisory council consisting of a committee of the trustees of the University, the president of the University, members of the Station staff, the Commissioner of Agriculture, and representatives from the State Pomological Society, the State Grange, and the State Dairymen's Association. The recommendations of the council are referred to the trustees for ratification. The Station receives $15,000 annually from the general government.

The inspection of fertilizers, the inspection of concentrated commercial feeding stuffs, and the testing of the graduated glassware used in creameries, are entrusted to the Station through its director, who is responsible for the execution of the public laws relating to these matters.

The Station publishes the account of its work in bulletin form. The bulletins for a year form a volume of about 200 pages and make up the annual report. Bulletins which contain matter of immediate value to practical agriculture are sent free of cost to the entire mailing list of the Station. On request, the name of any resident of Maine will be placed on the mailing list of the Station. Bulletins which contain the records of experiments involving the technical language of science, and containing detailed data, are sent to Station workers and others interested in the science of agriculture, but are not sent to farmers unless they are especially asked for.
COLLEGE OF TECHNOLOGY

The College of Technology provides technical instruction in chemistry and in various branches of engineering. Thirty credits are required for graduation, with any of these subjects as a major. In such technical courses it is necessary to prescribe a large proportion of the work; but some elective studies may be chosen in the junior and senior years. The college comprises:

The Chemical Course
The Civil Engineering Course
The Mechanical Engineering Course
The Electrical Engineering Course
The Mining Engineering Course

The Chemical Course

This course is designed for those who plan to become professional chemists and analysts, managers or chemists of industries which require an extensive knowledge of chemistry, or teachers of chemistry. Attention is given to preparation for the work of the agricultural experiment stations.

Lectures and recitations are closely associated with practical work in the laboratories. The student is drilled in the use of chemical apparatus, in accurate observation, and in careful interpretation of directions.

Eleven credits are required for the completion of the major, and a total of thirty for graduation.

Courses 1, 2, 3, and 4 in Chemistry must be taken in the Freshman year, for which one and two-fifths credits will be given toward the two credits in science required in all courses.

The major must include also the following subjects:
Ch 5 & 6................................Advanced Inorganic Chemistry................1 credit
Ch 14 & 15..............................Laboratory and Recitation work in Qualitative Analysis........2 credits
Ch 7 & 8................................Elementary Organic Chemistry................1 credit
Ch 16, 18 & 19........................Quantitative Analysis....................3 credits
Ch 23, 24a & 24b......................Advanced Organic Chemistry, and Industrial Chemistry...............1 credit
Ch 12, 20, 21, 22, 28, & Bl 17....Laboratory work in Agricultural Analysis, Chemical Preparations, Toxicology, Urinalysis, Dyeing, Bacteriology, and Thesis work..............3 credits

Where a subject continues throughout a whole year, credit will not be given for less than a year of work.

The four credits required in language must be chosen in French and German, and these studies must be continued as far as is necessary to obtain a reading knowledge of both.

If French is offered on entrance to college, courses Rm 2a and 2b should be completed in the freshman year. Should no preparatory French have been taken, courses Rm 1 and 2 must be taken the first year. In the sophomore year German should be begun, and continued throughout the junior year, covering courses Gm 1, 2, 3a, 3b.

The students electing this major must also take Ps 1 & 2 in Physics, Bl 1 & 2 in Biology, Bl 13 in Geology, and at least one-half credit in Elementary Drawing. Ch 13, Mineralogy, is advisable. Those who intend to teach or pursue advanced courses are advised to elect Ms 5 and Ms 7, Analytical Geometry and Calculus, as essential to a mastery of the recent progress in some fields of chemistry.

The remainder of the student's work may be selected from any of the courses offered in the University, with the advice and approval of the Professor of Chemistry and the professor in charge of the course selected. In every case such choice should be made with reference to the line of work to be taken up after graduation.
At graduation the student receives the degree of Bachelor of Science. Upon the completion of one year's prescribed work in residence, or two years' in absence, including the presentation of a satisfactory thesis and examination at the university, he receives the degree of Master of Science.

**The Civil Engineering Course**

The object of this course is to give the student a knowledge of mathematics, mechanics, and drawing, experience in the care and use of engineering instruments, and a drill in the application of mathematical principles and rules, with a view to fitting him at graduation to apply himself at once to engineering work. The course is planned to furnish not only technical instruction, but also the basis of a liberal education.

The following subjects, which amount to 17 credits, are the prerequisites for the technical engineering work in all departments, and students are advised to take them in the following order:

<table>
<thead>
<tr>
<th></th>
<th><strong>First Year</strong></th>
<th><strong>Second Term</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Term</strong></td>
<td><strong>Subject</strong></td>
<td><strong>Credits</strong></td>
</tr>
<tr>
<td>Ms 2 ..........</td>
<td>1</td>
<td>Ms 4, 6 ..........</td>
</tr>
<tr>
<td>Language .....</td>
<td>1 or 3-5</td>
<td>Language .....</td>
</tr>
<tr>
<td>Eh 1, 3 ........</td>
<td>4-5</td>
<td>Eh 1, 4 ..........</td>
</tr>
<tr>
<td>Ch 1, 3 ........</td>
<td>3-5</td>
<td>Ch 2, 4 ..........</td>
</tr>
<tr>
<td>Dr 1 ..........</td>
<td>2-5</td>
<td>Dr 3 ..........</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Second Year</strong></th>
<th><strong>Subject</strong></th>
<th><strong>Credits</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms 6, 7 ..........</td>
<td>1</td>
<td>Ms 8 ..........</td>
</tr>
<tr>
<td>Language ..........</td>
<td>3-5 or 1</td>
<td>Language ..........</td>
</tr>
<tr>
<td>Eh ................</td>
<td>1-5</td>
<td>Eh ................</td>
</tr>
<tr>
<td>Dr 6 ..........</td>
<td>2-5</td>
<td>Dr 7 ..........</td>
</tr>
<tr>
<td>Ps 1 ..........</td>
<td>1</td>
<td>Ps 2, 5 ..........</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Third Year</strong></th>
<th><strong>Subject</strong></th>
<th><strong>Credits</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ce 6 ..........</td>
<td>1</td>
<td>Ce 7 ..........</td>
</tr>
</tbody>
</table>
The following courses constitute a major in Civil Engineering, amounting to \(8\frac{1}{2}\) credits:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Term</td>
<td></td>
</tr>
<tr>
<td>Dr 4</td>
<td>2-5</td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ce 1, 2</td>
<td>2-5</td>
</tr>
</tbody>
</table>

Third Year

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ce 3, 4</td>
<td>3-5</td>
</tr>
</tbody>
</table>

Fourth Year

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ce 12</td>
<td>1</td>
</tr>
<tr>
<td>Ce 11, 14</td>
<td>1</td>
</tr>
</tbody>
</table>

It is thus seen that the prerequisites and the technical work amount to \(25\frac{1}{2}\) credits, leaving the student \(4\frac{1}{2}\) credits to elect. It is advised that nearly all elective work be taken during the last two years.

The methods of instruction are recitation, lectures, original problems, work in the testing laboratories, field practice, and designing, including the making of original designs and the preparation of the necessary drawings. Effort is made to acquaint the student with the best engineering structures, and with standard engineering literature.

The engineering building contains recitation rooms, designing rooms, testing laboratories, drawing rooms, and instrument rooms, and is well equipped.

At graduation the student receives the degree of Bachelor of Science. Upon the completion of one year's prescribed work in residence, or two years' in absence, including the presentation of a satisfactory thesis and examination at the University, he receives the degree of Master of Science. Three years after graduation, upon the presentation of a satisfactory thesis and proofs of professional work, he may receive the degree of Civil Engineer.
THE MECHANICAL ENGINEERING COURSE

This course is designed to give a training along fundamental lines for those who wish to engage in pursuits involving the application of mechanical principles or power. It is to be considered as a technical preparation for the special professional work to follow, the leading object being to develop systematic methods of work and the power to reason accurately from the true principles of mechanics.

The course begins with a study of the forms and principles of mechanisms considered only in those features relating to motion, and leading to a study of the engine valve motion. This is followed by constructive designing of simple machine parts, and accompanied by practice in wood and metal working in the shops and by study in the Mechanics of Engineering.

After this the more technical work is taken up. This includes a study of the properties of materials of engineering—illustrated by laboratory tests—of the properties of steam under pressure, and of the theory and forms of steam boilers and engines. A considerable portion of the time is devoted to designing, and in this work the student is free to select the type of machinery on which he is to specialize. Particular attention is given to experimental work. Tests are made for the lubricating properties of oils, bearing qualities of metals, evaporative power of the boilers, and efficiency of the engines in the mechanical laboratory and the power station, while commercial tests are often conducted for outside parties.

Work in Marine Engineering is offered as a special feature. This consists of a study of those types of steam boilers and engines common in marine practice, and of the design of propelling machinery for a ship of given form and dimensions. Estimates of weight and cost are made, the whole constituting the thesis required for graduation.

The courses which must be taken as prerequisites to the technical work in Mechanical Engineering are the same as for Civil Engineering, as given on page 110.

The following courses constitute a major in Mechanical Engineering, and should be taken in the order given.
SECOND YEAR

**Fall Term**
- Me 1 .......... 2-5 credit
- Me 3 .......... 1-5 credit

**Spring Term**
- Me 2 .......... 2-5 credit
- Me 4 .......... 3-5 credit

THIRD YEAR

- Me 5 and 6... 9-10 credit
- Me 7 .......... 2-5 credit

- Me 8 .......... 3-5 credit
- Me 15 ........ 3-10 credit

FOURTH YEAR

- Me 9 .......... 2-5 credit
- Me 10 ....... 2-5 credit
- Me 11 ....... 3-5 credit
- Me 12 ....... 3-5 credit
- Me 15 ....... 3-10 credit
- Me 21 ....... 1-5 credit
- Me 22 ....... 3-5 credit
- Me 15 ....... 3-10 credit
- Me 16 ....... 2-5 credit
- Me 17 ....... 3-5 credit
- Me 20 ....... 1-5 credit
- Me 21 ....... 1-5 credit
- Me 22 ....... 3-5 credit

At graduation the student receives the degree of Bachelor of Science. Upon the completion of one year's prescribed work in residence, or two years' in absence, including the presentation of a satisfactory thesis and examination at the University, he receives the degree of Master of Science. Three years after graduation, upon the presentation of a satisfactory thesis and proofs of professional work, he may receive the degree of Mechanical Engineer.

THE ELECTRICAL ENGINEERING COURSE

This course is intended to provide a thorough preparation in the scientific principles involved in the practice of electrical engineering; to explain and illustrate the application of these principles to the design, construction, installation and running of apparatus with which the electrical engineer has to deal, and to give practice and experience in the care and running of the same. In addition to this purely electrical work the student takes up carpentry, forge work, machine work, mechanical drawing, mathematics, physics, mechanics, steam engineering and other subjects allied to engineering work. For general courses he may elect from the list of subjects offered in the line of general train-
ing, including English, language, logic, psychology, history, political economy, and constitutional law.

The prerequisites for a major in Electrical Engineering include Me 1, 2, 3, 4, 5, 6, in addition to the prerequisites for a major in Civil Engineering. (See p. 110).

A major course in Electrical Engineering should include the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ee 1 and 2</td>
<td>Electricity and Magnetism and Dynamo Design</td>
<td>1</td>
</tr>
<tr>
<td>Ee 3 and 5</td>
<td>Electrical Machinery and Design of D.C. Machines</td>
<td>1</td>
</tr>
<tr>
<td>Ee 4 and 13</td>
<td>Alternating Currents and Alternating Current Machinery</td>
<td>1.1</td>
</tr>
<tr>
<td>Ee 7 and 8</td>
<td>Laboratory Work, Direct and Alternating Currents</td>
<td>0.85</td>
</tr>
<tr>
<td>Ee 6 and 14</td>
<td>Design of Alternating Current Machines, Elec. Eng</td>
<td>0.55</td>
</tr>
<tr>
<td>Ee 16</td>
<td>Thesis</td>
<td>0.75</td>
</tr>
<tr>
<td>Me 7 and 11</td>
<td>Valve Gears, Thermodynamics</td>
<td>0.75</td>
</tr>
<tr>
<td>Ps 11</td>
<td>Electrical Measurement and Testing</td>
<td>0.06</td>
</tr>
</tbody>
</table>

The equipment for laboratory work in electrical engineering is ample and includes most of the standard forms of instruments and machines.

At graduation the student receives the degree of Bachelor of Science. Upon the completion of one year's prescribed graduate work in residence, or two years' in absence, including the presentation of a satisfactory thesis and examination at the University, he receives the degree of Master of Science. Three years after graduation, upon the presentation of a satisfactory thesis and proofs of professional work, he may receive the degree of Electrical Engineer.

**The Mining Engineering Course**

In the newly established department of mining engineering, the course of study for the first two years is identical with that in civil engineering, except that, during the second year, class and laboratory work in chemistry takes the place of the courses in mechanical drawing, descriptive geometry and surveying. It is expected that more specific and advanced instruction in this department will be provided at an early date.
COLLEGE OF PHARMACY

The College of Pharmacy comprises:

The Pharmacy Course
The Short Course in Pharmacy

THE PHARMACY COURSE

This course is offered in response to a demand for a thorough training, both general and technical, for those who are to become pharmacists. It aims to combine a broad general culture and a thorough preparation along its special lines, with the design of affording both the intellectual development necessary for the well rounded professional or business man, and the necessary technical training. To this end, it includes the same instruction in modern languages, civics, and the sciences, as is offered in other college courses. Thirty credits are required for graduation.

Those who intend to fit themselves for pharmaceutical work are urged to consider carefully the superior advantages of this course. The growing importance of the biological, sanitary, and medical sciences, and the pharmacist's relation to them, makes it increasingly necessary to his success that he be not only a well trained man in the technical branches, but an educated man in the broadest sense.

Instruction in pharmaceutical studies is given by means of lectures, recitations, and tests, supplemented by work in the laboratories of chemistry and pharmacy. It embraces qualitative, quantitative, and volumetric analysis, toxicology, bacteriology, prescriptions, the preparation of pharmaceutical compounds, and original investigations.

The library contains valuable reference literature in chemistry and pharmacy, and the best chemical and pharmaceutical journals.
For the general requirements common to all curricula see pag 49. In addition the following courses are required:

**Pharmacy:** Pm 5, 6, Pharmacognosy; Pm 2, 4, Pharmacy; Pm 3, 10, Lab. Pharmacy; Pm 7, Materia Medica; Pm 9, Pharmacy Readings; Pm 11, Prescriptions........7 credits

**Chemistry:** Ch 1, 2, Gen. Chemistry; Ch 3, 4, Lab. Chemistry; Ch 5, 6, Inorg. Chemistry; Ch. 14, 15, Qual. Analysis; Ch 7, 8, Organic Chemistry; Ch 16, 19; Quant. Analysis; Ch 21, Toxicology...............................7 credits

**Botany:** Ht 1, Gen. Botany; Ht 2, Hist. Plants......0.8 credit

**Biology:** Ch 30, Biolog. Chemistry; Bl 17, 19, Bacteriology and Lab. Bacteriology..............................2 credits

**Physics:** Ps 12, Gen. Physics; Ps 5, Lab. Physics, 1.4 credits

**Civics, Philosophy, or History..........................2 credits**

From other courses enough must be elected to make a total of 30 credits.

At graduation the student receives the degree of Bachelor of Science. Upon the completion of one year’s prescribed work in residence, or two years’ in absence, including the presentation of a satisfactory thesis, and examination at the University, he receives the degree of Master of Science.

**The Short Course in Pharmacy**

This course, of two years, is designed for those who, for lack of time or for other reasons, are unable to take the course of four years. The more general educational studies of the full course are omitted, but as broad a range of subjects is offered as can be undertaken without sacrifice of thoroughness in the technical work. The course corresponds, in general, to the usual full course of pharmacy colleges. The work required of the student will occupy his whole time during the college year of nine months, and will usually exclude work in drug stores during term time. The brevity of this course does not warrant extending to other than advanced students the privilege of electives.

The required courses are:

**Pharmacy:** Pm 1, 2, 4, Pharmacy; Pm 5, 6, Pharmacognosy; Pm 7, Materia Medica; Pm 9, Pharmacy Readings; Pm 3, 10, Lab. Pharmacy; Pm 11, Prescriptions.
Chemistry: Ch 1, 2, Gen. Chemistry; Ch 14, 15; Qual. Analysis; Ch 19, Vol. Analysis; Ch 7, 8, Organic Chemistry; Ch 21, Toxicology.

Physics: Ps 3, 6, Elementary Physics.

Botany: Ht 1, Gen. Botany; Ht 2, Histology of Plants.

Biology: Ch 30, Biolog. Chemistry; Bl 17, Bacteriology.

Students who complete this course in a satisfactory manner receive the degree of Pharmaceutical Chemist.
COLLEGE OF LAW

Faculty
George Emory Fellows, Ph. D., L. H. D., LL. D.,
President of the University.
William Emanuel Walz, M. A., LL. B.,
Dean, and Professor of Law.
Allen Ellington Rogers, M. A.,
Professor of Constitutional Law.
Ernest Gustavus Lorenzen, Ph. B., LL. B., J. U. D.,
Professor of Law.
Edgar Myrick Simpson, B. A.,
Instructor in Real Property and Corporations.
Eugene Clement Donworth, LL. B.,
Instructor in Contracts.
Bertram Leigh Fletcher, LL. B.,
Instructor in Agency.
George Henry Worster,
Instructor in Insurance.
Forest John Martin, LL. B.,
Resident Lecturer on Common Law Pleading and Maine Practice.
Hugo Clark, C. E.,
Resident Lecturer on Equity Pleading and Practice.
Charles Hamlin, M. A.,
Lecturer on Bankruptcy and Federal Procedure.
Lucilius Alonzo Emery, LL. D.,
Lecturer on Roman Law and Probate Law.
Andrew Peters Wiswell, LL. D.,
Lecturer on Evidence.
Louis Carver Southard, M. S.,
Lecturer on Medico-Legal Relations.
Charles Vey Holman, LL. B.,
Lecturer on Wills and Mining Law.
Ralph Kneeland Jones, B. S.,
Librarian.
The College of Law was opened to students in 1898. It occupies rooms in the Exchange Building, at the corner of State and Exchange streets, Bangor. In this city are held annually one term of the U. S. District Court, five terms of the Maine Supreme Judicial Court, one term of the Law Court, and daily sessions of the Municipal Court. The law library contains about 3,000 volumes, including the reports of the Supreme Court of the United States, Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Ohio, and the Court of Appeals of New York, the New York Common Law and Chancery Reports, the American Decisions, American Reports, American State Reports, the Complete Reporter System, the Lawyers' Reports Annotated, all the Law Encyclopædias, and a considerable number of text-books.

Admission

Graduates of any college or satisfactory preparatory school are admitted to the college as candidates for the degree of Bachelor of Laws, without examination. Other applicants must give satisfactory evidence of the necessary educational qualifications for the pursuit of the required course of study. These will be fixed in each case according to the rules of the Association of American Law Schools, of which association this school is a member.

Special students, not candidates for a degree, will be admitted without examination, and may pursue any studies for which they are prepared.

Students from other law schools, also members of the Association of American Law Schools, are admitted to classes in this institution corresponding to classes in the schools from which they come, upon the production of a certificate showing the satisfactory completion of the prior work in such schools.

Students from law offices are admitted to advanced standing upon passing a satisfactory examination upon the earlier subjects of the course.

Members of the bar of any state may be admitted to the senior class, without examination, as candidates for the degree of Bachelor of Laws, while graduate students may take one of the two courses leading to the degree of Master of Laws.
METHODS OF INSTRUCTION

The college is not committed exclusively to any one method of instruction, and recognizes the great value of lectures by able men, and the profit to be found in the use of standard textbooks, but the greatest stress is placed upon the study of selected cases, and most of the work is carried on in this way. It is believed that through the case the student can best come at the controlling principles of the law, and that in no other way can he get so vital a comprehension of them. "Through the case to the principle," may perhaps adequately indicate the standpoint of the school in the matter of method.

Particular stress is placed upon the Practice Court, which is held once a week as a part of the work of the college, and in which every student is required to appear regularly. The questions of law are in all instances made to arise from the pleadings prepared by the students, and briefs, summarizing the points involved and the authorities cited, are submitted to the presiding judge.

The aim and spirit of the college are eminently practical, the purpose being to equip men for the everyday duties of the practicing attorney.

COURSE OF STUDY

The course of study covers three years, in accordance with the requirements for admission to the bar in the State of Maine. The college year consists of thirty-two weeks, and is divided into the fall, winter, and spring terms, of eleven, ten, and eleven weeks respectively.

EXPENSES

The annual tuition fee is $60. The graduation fee is $10. There are no other charges.

Board and furnished rooms, with light and heat, may be obtained in the most convenient locations, at a price ranging from $3 to $7 a week. In other parts of the city lower rates may be obtained. It is believed that expenses in this department, as well as in other departments of the University, are lower than in any other New England college.
Degrees

At the completion of the three years course, the degree of Bachelor of Laws is conferred. Upon the completion of one year's prescribed work in residence, or two years' in absence, including the presentation of a satisfactory thesis and examination at the University, the degree of Master of Laws is granted.
COURSES OF INSTRUCTION


Lw 5. Carriers.—A continuation of course 4. Two hours a week. Winter term. Professor Lorenzen.


Lw 10. Contracts.—Keener's Cases on Contracts. Four hours a week. Fall term. Mr. Donworth.

Lw 12. CONTRACTS.—A continuation of course 11. Two hours a week. Spring term. Mr. Donworth.

Lw 13. CRIMINAL LAW.—Beale's Cases on Criminal Law. Two hours a week. Winter term. Mr. Simpson.

Lw 14. CRIMINAL LAW.—A continuation of course 13. Two hours a week. Spring term. Mr. Simpson.

Lw 15. DAMAGES.—Beale's Cases on Damages. Three hours a week. Winter term. Mr. Worster.

Lw 16. DOMESTIC RELATIONS.—Smith's Cases on Persons. Three hours a week. Fall term. Mr. Simpson.

Lw 17. EQUITY JURISPRUDENCE.—Bispham on Equity Jurisprudence and Shepard's Cases on Equity. Four hours a week. Fall term. Professor Walz.

Lw 18. EQUITY JURISPRUDENCE.—A continuation of course 17. Three hours a week. Winter term. Professor Walz.

Lw 19. EQUITY PLEADING.—Lectures. Two hours a week. Spring term. Mr. Clark.

Lw 20. EVIDENCE.—Thayer's Cases. Four hours a week. Fall term. Professor Lorenzen.


Lw 23. EXECUTORS AND ADMINISTRATORS.—Lectures. One hour a week. Spring term. Mr. Simpson.


Lw 25. GENERAL REVIEW.—Gardner's Review. Two hours a week. Spring term. Professor Walz.

Lw 27. Insurance.—Woodruff's Cases. *Three hours a week.* Spring term. Mr. Worster.


Lw 29. Maine Practice.—Lectures. *One hour a week.* Spring term. Mr. Martin.


Lw 35. Partnership.—Ames's Cases. *Four hours a week.* Spring term. Professor Walz.

Lw 36. Private Corporations.—Smith's Cases. *Four hours a week.* Fall term. Professor Lorenzen.


Lw 39. Real Property.—Tiedeman on Real Property. *Four hours a week.* Fall term. Mr. Simpson.
Lw 40. REAL PROPERTY.—A continuation of course 39. Three hours a week. Winter term. Mr. Simpson.

Lw 41. REAL PROPERTY.—Finch's Cases on the Law of Property in Land. Four hours a week. Spring term. Mr. ———

Lw 42. ROMAN LAW.—Lectures. About ten hours. Spring term. Mr. Justice Emery.

Lw 43. SALES.—Burdick's Cases. Two hours a week. Fall term. Professor Walz.

Lw 44. SALES.—A continuation of course 43. Two hours a week. Winter term. Professor Walz.

Lw 45. SURETYSHIP.—Ames's Cases. Two hours a week. Fall term. Professor Lorenzen.

Lw 46. SURETYSHIP.—A continuation of course 45. Two hours a week. Winter term. Professor Lorenzen.

Lw 47. TORTS.—Ames and Smith's Cases. Four hours a week. Fall term. Professor Walz.

Lw 48. TORTS.—A continuation of course 47. Three hours a week. Winter term. Professor Walz.

Lw 49. TORTS.—A continuation of course 48. Two hours a week. Spring term. Professor Walz.

Lw 50. WILLS.—Chaplin's Cases. Three hours a week. Spring term. Mr. Holman.
COMMENCEMENT

The Commencement exercises of 1903 were as follows:—
Saturday, June 6: Junior Exhibition.
Sunday, June 7. Baccalaureate Address, by Professor Nathaniel Butler, D. D., of the University of Chicago.
Monday, June 8: College Convocation, including reports of departments and student enterprises, and the awarding of prizes; Class Day Exercises; President's Reception.
Tuesday, June 9: Phi Kappa Phi Initiation; Receptions by the Fraternities.
Wednesday, June 10: Commencement Exercises; Commencement Dinner; Meeting of the Alumni Association; Commencement Concert.

CERTIFICATES AND DEGREES

The Degree of Pharmaceutical Chemist was conferred upon:
Ernest Lester Cowan, West Hampden.
Harry Davis Cowles, Athol, Mass.
Andy Laurin Hoyt, Dover.
James Leroy Race, Boothbay.

The Bachelor's degree was conferred upon:
Waldo Horace Bennett, LL. B., Newport.
Cleora May Carr, Ph. B., Oldtown.
Robert Flint Chandler, B. S. in Civil Engineering, New Gloucester.
Leroy Milton Coffin, B. S., Freeport.
Fred Collins, B. S. in Civil Engineering, Bar Harbor.
Ralph Melvin Conner, B. S. in Civil Engineering, East Wilton.
Leroy Brown Crabtree, B. S., Hancock.
Henry Kennedy Crocker, B. S. in Chemistry, Rockland.
Rodney Clinton Davis, B. S. in Civil Engineering, Lewiston.
Sanford Crosby Dinsmore, B. S. in Chemistry, Dover.
Carlos Dorticos, B. S., Woodford's.
Frank Libby Douglass, B. S. in Civil Engineering, West Gorham.
William Norman Dyer, B. S. in Civil Engineering, Harrington.
Samuel Joshua Foster, B. S. in Pharmacy, Bingham.
George Leonard Freeman, B. S. in Civil Engineering, West Gray.
Arthur Willard Gage, B. S. in Civil Engineering, Dennisport, Mass.
Thomas Reardon Geary, LL. B., Whitneyville.
Oren Leslie Goodridge, B. S. in Civil Engineering, Orono.
Burton Woodbury Goodwin, B. S. in Civil Engineering, Berry Mills.
Shirley Preston Graves, B. S., Northeast Harbor.
Philip Howard Harris, B. S. in Electrical Engineering, Portland.
Edward Goodnow Hartford, B. S. in Civil Engineering, Calais.
John Heddle Hilliard, B. A., Oldtown.
Frances Augusta Hinckley, Ph. B., Oldtown.
Claude Abbott Kittredge, B. S. in Electrical Engineering, Farmington.
Warren Cornelius Loud, B. S. in Civil Engineering, Caribou.
John Hollis McCready, B. S. in Electrical Engineering, Houlton.
Amy Ines Maxfield, B. S., Sandy Point.
James Herbert Morson, LL. B., Marshfield, P. E. I.
Ulysses Grant Mudgett, LL. B., Hampden.
Roderick Edward Mullaney, B. S. in Civil Engineering, Bangor.
Edward Patrick Murray, LL. B., Bangor.
Ernest Eugene Noble, LL. B., Blaine.
Stephen Edward Patrick, B. S. in Mechanical Engineering, Gorham.
Ernest Albee Porter, B. S. in Civil Engineering, Eustis.
Charles Hickson Reid, LL. B., Bangor.
Harold Vose Sheahan, B. S. in Civil Engineering, Dennysville.
Paul Dyer Simpson, B. S. in Civil Engineering, Sullivan.
Silas Gilman Small, B. S. in Pharmacy, Lubec.
Howard Ausburn Smith, B. S., in Electrical Engineering, North Truro, Mass.
Donald Francis Snow, LL. B., Bangor.
Henry Melville Soper, B. S. in Chemistry, Oldtown.
Charles Wesley Stone, Jr., B. S. in Chemistry, Milo.
George Warren Thombs, LL. B., Monson.
Arthur Roy Towe, B. S. in Civil Engineering, North Lubec.
Isaac Emery Treworgy, B. S., Surry.
Nil Louis Violette, LL. B., Van Buren.
Ralph Henry White, B. S. in Mechanical Engineering, East Machias.
Harvey David Whitney, B. S. in Chemistry, Auburn.
Mellen Cleaveland Wiley, B. S. in Civil Engineering, Bethel.
George Hayes Winn, LL. B., Lewiston.

The degree of Master of Science, upon the presentation of satisfactory theses, and examination on prescribed courses of advanced study, was conferred upon:

Walter Rautenstrauch, (B. S., University of Missouri, 1902), Sedalia, Mo.
Marie Cecilia Rice, (B. S., 1902), Bangor.

The degree of Civil Engineer, upon presentation of a satisfactory thesis, and proof of professional work extending over a period of not less than three years, was conferred upon:

The degree of Electrical Engineer, upon presentation of satisfactory theses and proof of professional work extending over a period of not less than three years, was conferred upon:

Alfred Howard Buck, B. M. E. (1895), New York, N. Y.
Harold Hayward Clark, B. M. E. (1899), West Lynn, Mass.

The honorary degree of Mechanical Engineer was conferred upon Clarence Everett Watts, of the class of 1898, Windber, Pa.

The various prizes were awarded last year as follows:
The Kidder Scholarship, to George Kemp Huntington, Lynn, Mass.
The Junior Exhibition Prize, to Lennie Phoebe Copeland, Bangor.
The Sophomore Exhibition Prize, to George Kemp Huntington. Lynn, Mass.
The Walter Balentine Prize, to Harry Ansel Sawyer, Portland.
APPOINTMENTS

Speakers at Commencement, June, 1903

Archie Ray Benner, Waldoboro; Ralph Melvin Conner, East Wilton; Philip Howard Harris, Portland; John Heddle Hilliard, Oldtown; James Herbert Morson, Marshfield, P. E. I.; Ernest Albee Porter, Eustis; Paul Dyer Simpson, Sullivan; George Warren Thombs, Monson.

Speakers at the Junior Exhibition, June, 1903

Ira Mellen Bearce, Hebron; Lennie Phoebe Copeland, Bangor; John Emanuel Olivenbaum, Jemtland; John Herman Quimby, Goodale’s Corner; Alvah Randall Small, Portland; Thomas Francis Taylor, Bangor.

Speakers at the Sophomore Prize Declamation Contest, December, 1902

Howard Lincoln Churchill, North Buckfield; Henry Kingman Dow, Oldtown; Frank Leroy Flanders, Howard, R. I.; Andrew Jenkins Hayes, Oxford; Thomas Victor Hodges, Boston, Mass.; George Kemp Huntington, Lynn, Mass.; Carl David Smith, Skowhegan; Marion Barry Wentworth, Kennebunk Beach.

Members of the Phi Kappa Phi

Nathan Ajalon Chase, South Paris; Leroy Melville Coffin, Freeport; Ralph Melvin Conner, East Wilton; George Leonard Freeman, West Gray; Frances Augusta Hinckley, Oldtown; John Hollis McCready, Houlton; James Herbert Morson, Marshfield, P. E. I.; Roderick Edward Mullaney, Bangor; Ernest Albee Porter, Eustis; Paul Dyer Simpson, Sullivan; George Warren Thombs, Monson; Ralph Henry White, East Machias.
SENIORS RECEIVING GENERAL HONORS
Nathan Ajalon Chase, South Paris; Leroy Melville Coffin, Freeport; George Leonard Freeman, West Gray; Frances Augusta Hinckley, Oldtown; John Hollis McCready, Houlton; Roderick Edward Mullaney, Bangor; Ernest Albee Porter, Eustis; Paul Dyer Simpson, Sullivan.

SENIORS RECEIVING SPECIAL HONORS
Leroy Melville Coffin, Freeport, in Mathematics (twice).
Ernest Albee Porter, Eustis, in Mathematics.

JUNIORS RECEIVING SPECIAL HONORS
Lennie Phoebe Copeland, Bangor, in Mathematics.
Ralph Waldo Emerson Kingsbury, South Brewer, in Physics.
CATALOGUE OF STUDENTS

GRADUATE STUDENTS

Adams, Charles Everett, B. A., M. D., Bangor, Bowdoin College, B. A., 1884, M. D., 1890.

Bowen, Everett Harlow, B. A., Lowville, N. Y., 2 Bennoch St.

Cummings, Marshall Baxter, B. S., North Thetford, Vt., University of Vermont, 1901.

Davis, Grant Train, B. A., Clinton, Mich., University of Michigan, 1903.

Dinsmore, Sanford Crosby, B. S., Dover, Oak Hall Annex.

Edson, Newell Walter, B. A., Portland, Mrs. A. M. Graves.

Hanson, Herman Herbert, B. S., Orono, 61 Main St.

Hofstead, Harry O., B. A., New Haven, Conn., Bangor.


SENIORS

Averill, Roy Samuel, Milltown, 201 Oak Hall.

Bassett, Hubert Merle, Taunton, Mass., Pine St.

Bassett, Ralph Smith, Oldtown, Oldtown.


Bearce, Ira Mellen, Hebron, 207 Oak Hall.

Berry, Edward Robie, Lynn, Mass., B. Θ. II. House.

Bradford, Luther Cary, Turner, B. Θ. II. House.

Brann, George Samuel, Dover, 304 Oak Hall.

Breed, Everett Mark, Skowhegan, Φ. Κ. Σ. House.
UNIVERSITY OF MAINE

Broadwell, Edwin Sherman, Cleveland, Ohio, K. S. House.
Brown, Ernest Carroll, Gorham, 201 Oak Hall.
Brown, Horace Arthur, Bradley, Bradley.
Buck, Florence Emily, Bucksport, Mt. Vernon House.
Buker, Edson Bayard, Brownville, 305 Oak Hall.
Chaplin, Carroll Sherman, Portland, Φ. Γ. Α. House.
Clare, Clifford Gray, Baring, 302 Oak Hall.
Clifford, Edward Clinton, Woodfords, Φ. Γ. Α. House.
Copeland, Lennie Phoebe, Bangor, Mt. Vernon House.
Crowley, Elmer Bishop, Indian River, 209 Oak Hall.

Dorticos, Philip, Woodfords, K. S. House.
Fifield, Fred Victor, East Eddington, 310 Oak Hall.
Flynt, Roy Horton, Augusta, B. Θ. Π. House.
French, Harold Francis, Glenburn, 53 Main St.
Giles, Clyde Irving, Skowhegan, Σ. X. House.
Haley, Harry Dennett, Gardiner, K. S. House.
Haskell, Roger, Westbrook, 3 Peters St.
Herbert, Thomas Carroll, Richmond, 105 Oak Hall.
Hopkins, Ralph Thomas, Bangor, B. Θ. Π. House.
Kimball, Charles Benjamin, B. A., N. New Portland, Rev. W. B.
Colby College, 1886.

Kingsbury, Ralph Waldo Emerson, So. Brewer, Φ. K. S. House.
Larrabee, Benjamin True, Cumberland Mills, K. S. House.
Leighton, Clifford Henry, Addison, 6 Main St.
Little, Leslie Eugene, Bucksport, Φ. Γ. Α. House.
McCullough, Frank, Lynn, Mass., B. Θ. Π. House.
McIntire, Walter Draper, Orange, Mass., Σ. X. House.
Monk, Holman Waldron, North Buckfield, 110 Oak Hall.
Olivenbaum, John Emmanuel, Jemtland, Φ. Γ. Α. House.
Paine, Allen Thatcher, 
Parker, Edward Alton, 
Pearson, Ralph Howard, 
Perkins, Connor Arthur, 
Phinney, Alverdo Linwood, 
Porter, Karl Byron, 
Quimby, John Herman, 
Sampson, Charles Henry, 
Sawyer, Harry Ansel, 
Sawyer, James Herbert, 
Scott, Walter Erwin, 
Sinclair, Karl Augustus, 
Small, Alvah Randall, 
Small, Lottie Luella, 
Smith, Leroy Clifton, 
Soderstrom, Godfrey Leonard, 
Stewart, George Thomas, 
Strickland, Roy Elgin, 
Taylor, Alec Gladstone, 
Taylor, Elliott Williams, 
Taylor, Howard Smith, 
Taylor, Thomas Francis, 
Tucker, John Voden, 
Turner, Roland Lee, 

Webber, Mary Frances, 
Webster, Francis Howe, 
Whipple, Albert Lawrence, 

Brewster, Mass., 
Skowhegan, 
Guilford, 
Bucksport, 
South Portland, 
Oldtown, 
Goodale’s Corner, 
Gorham, 
Portland, 
Saco, 
Dexter, 
Malden, Mass., 
South Portland, 
Auburn, 
East Exeter, 
Brooklyn, N. Y., 
Auburn, 
South Paris, 
North Sullivan, 
Wollaston, Mass., 
Bangor, 
Bangor, 
Bangor, 
West Boothbay Harbor, 

Webster, Francis Howe, 

Brewster, Mass., 

Paine, Allen Thatcher, 
Parker, Edward Alton, 
Pearson, Ralph Howard, 
Perkins, Connor Arthur, 
Phinney, Alverdo Linwood, 
Porter, Karl Byron, 
Quimby, John Herman, 
Sampson, Charles Henry, 
Sawyer, Harry Ansel, 
Sawyer, James Herbert, 
Scott, Walter Erwin, 
Sinclair, Karl Augustus, 
Small, Alvah Randall, 
Small, Lottie Luella, 
Smith, Leroy Clifton, 
Soderstrom, Godfrey Leonard, 
Stewart, George Thomas, 
Strickland, Roy Elgin, 
Taylor, Alec Gladstone, 
Taylor, Elliott Williams, 
Taylor, Howard Smith, 
Taylor, Thomas Francis, 
Tucker, John Voden, 
Turner, Roland Lee, 

Webber, Mary Frances, 
Webster, Francis Howe, 
Whipple, Albert Lawrence, 

Brewster, Mass., 
Skowhegan, 
Guilford, 
Bucksport, 
South Portland, 
Oldtown, 
Goodale’s Corner, 
Gorham, 
Portland, 
Saco, 
Dexter, 
Malden, Mass., 
South Portland, 
Auburn, 
East Exeter, 
Brooklyn, N. Y., 
Auburn, 
South Paris, 
North Sullivan, 
Wollaston, Mass., 
Bangor, 
Bangor, 
Bangor, 
West Boothbay Harbor, 

Lynn, Mass., 
Lynn, Mass., 
Scotland, Conn., 
St. John, N. B., 
East Winthrop, 
Auburn, 
Oro, 

Abbott, Curtis Eames, 
Alton, Ralph Henry, 
Ames, Bertram Eugene, 
Anthony, Gould Roydon, 
Armstrong, George Otty, 
Bacheider, Herbert Walter, 
Bailey, Charles Lester, 
Balentine, Florence, 

Locke’s Mills, 
Lynn, Mass., 
Lynn, Mass., 
Scotland, Conn., 
St. John, N. B., 
East Winthrop, 
Auburn, 
Oro, 

Abbott, Curtis Eames, 
Alton, Ralph Henry, 
Ames, Bertram Eugene, 
Anthony, Gould Roydon, 
Armstrong, George Otty, 
Bacheider, Herbert Walter, 
Bailey, Charles Lester, 
Balentine, Florence,
Barton, Murray Fernald, Bradley.
Beale, Harry Orlando, Orono, 47 Main St.
Bearce, Edwin Freeman, Auburn, B. Θ. II. House.
Blaisdell, Harry George, Bangor.
Bowles, Clayton Wass, Columbia Falls, 6 Main St.
Brown, Archer Norwood, Stillwater, Stillwater.
Carle, George Wilmot, Portland, 107 Oak Hall.
Chatto, Byron Herbert, East Surry, E. E. Webster.
Collins, Arthur Winfield, Caribou, Φ. Γ. Δ. House.
Cotton, Ernest Linwood, Cumberland Mills, 12 Main St.
Cowan, Benjamin Mosher, Biddeford, A. T. Ω. House.
Cowles, Harry Davis, Athol, Mass., J. P. Spearen.
Crowe, Francis Trenholm, Matewan, N. Y., 205 Oak Hall.
Crowe, Joseph Wilkinson, Matewan, N. Y., 202 Oak Hall.
Dinsmore, Ernest LeRoy, Whiting, 312 Oak Hall.
Dow, Henry Kingman, Oldtown, Oldtown.
Drummond, Robert Rutherford, Bangor, Κ. Σ. House.
Flanders, Frank Leroy, Howard, R. I., A. T. Ω. House.
Foubert, Charles Leon, Danbury, Conn., 305 Oak Hall

[Annex]
French, Prentiss Edwin, Turner, 205 Oak Hall.
Gulliver, Edward Charles, Portland, 53 Main St.
Harlow, Clarence Burr, Brewer, 107 Oak Hall.
Harvey, Bartle Trott, Orono, 46 Main St.
Haskell, Ralph Webster, Westbrook, Φ. Γ. Δ. House.
Hayes, Andrew Jenkins, Oxford, Φ. Κ. Σ. House.
Higgins, Roy Edwin, Brewer, Φ. Γ. Δ. House.
Hilliard, Edward Knight, Oldtown, Φ. Γ. Δ. House.
Hilton, Horace Alden, Bangor, B. Θ. II. House.
Huntington, George Kemp, Lynn, Mass., Φ. Κ. Σ. House.
Huston, Milton, West Falmouth, 43 No. Main St.
Johnstone, Leslie Ingalls, Milford.
Kay, Frank Wilbur, Fiskdale, Mass., 308 Oak Hall.
Kenrick, William Winslow, Lynn, Mass., Σ. X. House.
Lang, Charles Libby, Harrison, Φ. Κ. Σ. House.
Learned, Frank Everett, Waterville, Α. Τ. Ω. House.
McClure, James Harvey, Bangor, B. Θ. II. House.
McDermott, John Augustine, Biddeford, A. T. Ω. House.
Maddocks, William Samuel, Oldtown, Oldtown.
Martin, Lloyd Arthur, Oldtown.
May, John, Oldtown.
Moody, Clare Joseph, West Newfield, Φ. Γ. Δ. House.
Moody, Percival Ray, Winterport, Mrs. A. M. Graves.
Pennell, Charles Weston, Biddeford, A. T. Ω. House.
Powell, Mabel Frances, Gray, Σ. X. House.
Ricker, William Jewett, Orono, Forest St.
Rogers, Elmer George, Turner, 309 Oak Hall.
Rogers, Robert Fisher, Bowdoinham, 303 Oak Hall.
Sampson, Freeman Marston, Bowdoinham, 303 Oak Hall.
Sands, Roy Granville, Gorham, 204 Oak Hall.
Seabury, Ralph Lowe, Fızcroft, 47 Main St.
Shaw, Walter Jeffersen, Yarmouth, 103 Oak Hall.
Smith, Carl David, Orono, 36 Mill St.
Smith, Dwight Freeman, Skowhegan, Φ. Γ. Δ. House.
Sprague, Adelbert Wells, Skowhegan, Φ. Γ. Δ. House.
Stanley, Howard Arthur, Bangor, K. Σ. House.
Sweet, Calvin Arthur, Beverly, Mass., Φ. Γ. Δ. House.
Sweetser, Ernest Osgood, South Atkinson, 210 Oak Hall.
Talbot, Fred William, Cumberland Center, Σ. X. House.
Taylor, Roy Edmund, Andover, 306 Oak Hall.
Thatcher, Henry David Thoreau, Springvale, 3 Peters St.
Thomas, Burton Merrill, Dexter, B. Θ. Π. House.
Thomas, Herbert Thomas, Portland, B. Θ. Π. House.
Thomas, Lucian Alvah, Andover, 202 Oak Hall.
Thomes, Edward Calder, Rockland, Σ. X. House.
Trafton, Ernest Eugene, Portland, B. Θ. Π. House.
Trask, Oland Wilbur, Auburn, Φ. K. Σ. House.
Weeks, Carl Wellington, Woodfords, K. Σ. House.
Weld, Moses Waldo, Masardis, Φ. K. Σ. House.
Wentworth, Marion Barry, Oldtown, Oldtown.
White, Alphonso, North Sebago, Mr. W. Reed.
White, Frank Osmond, Orono, 28 Mill St.
Whittier, Arthur Craig, Farmington, 108 Oak Hall.
Wood, Alphonso, Belfast, B. Θ. Π. House.
SOPHOMORES

Abbott, Herbert Lester,
Aborn, Edward Burton,
Alexander, Jefferson Leavitt,
Austin, Alton Arthur,
Bacon, Roy Sawtelle,
Banks, Frank Arthur,
Bean, Ernest Daniel,
Bearce, Henry Walter,
Bearce, Winfield Dexter,
Bennett, Arthur Guy,
Bradley, Elmer Percy,
Brawn, Elwin Dresser,
Brown, Everett Dana,
Burke, Walter Horace,
Butterworth, Albert Jared,
Campbell, Charles William,
Carlson, Gotthard Wilhelm,
Carver, Wilbur Joshua,
Cassey, Sidney,
Caswell, Claude Edgar,
Colby, Edward Kelly,
Coligny, Gueric Gaspard de,
Crowell, Lincoln,
Currier, Charles Ellsworth,
Danforth, Franklin Wendell,
Devereux, Rosmar Styer,
Dickinson, Raymond Nettleton,
Dolbier, William Ray,
Edwards, Dayton James,
Elliot, Samuel Gault,
Elliott, Hallet Carroll,
Elms, James William,
Emery, Harry Alvah,
Floyd, Charles Wallace,
Forbes, Clinton Fairfield,
Frost, Walter Oscar,

Bucksport, 202 Oak Hall Annex.
Lynn, Mass.,  Φ. Γ. Δ. House.
Eastport, 301 Oak Hall.
Ridlonville, University Hall.
Sidney, University Hall.
Biddeford, A. T. Ω. House.
Haverhill, Mass., University Hall.

Hebron, 207 Oak Hall.
Auburn, B. Θ. II. House.
Pemaquid, A. T. Ω. House.
Dexter, B. Θ. II. House.
South Paris, University Hall.
West Kennebunk, 311 Oak Hall.
Southbridge, Mass., Σ. X. House.
Ellsworth, K. Σ. House.
Bethel, Φ. K. Σ. House.
Searsport, K. Σ. House.
Lynn, Mass., 36 Main St.
Gray, Σ. X. House.
Lynn, Mass., 36 Main St.
Dorchester, Mass., 206 Oak Hall.
Brever, Φ. K. Σ. House.
Skowhegan, University Hall.
Castine, 53 Main St.
Hartford, Conn., 206 Oak Hall.
Salem, Pres. G. E. Fellows.
Rumford Point, 305 Oak Hall.
Patten, 12 Main St.
Foxcroft, A. T. Ω. House.
North Anson, 47 Main St.
Wytopitlock, 104 Oak Hall.
Buckfield, Oldtown.
Rockland, Φ. Γ. Δ. House.
Glover, Philip Holden,
Goodwin, George Parlin,
Gray, Claude Albert,
Hamlin, Roy Gilbert,
Harding, Brydone Ellsworth,
Harlow, Frederic Hall,
Hendricks, Frank Sherman,
Hews, Wellington Prescott,
Hill, George Herbert,
Hodgdon, Carolyn Adelle,

Howard, Lester Boynton,
Hoxie, Harold Shepherd,
Hoxie, Harvey Hamlin,
Hunnewell, Carl,
Johnson, Caleb Hartwell,
Jones, Gertrude May,
Karl, Harold Louis,
Kittredge, Raymond Brown,
Lord, Ralph Edwin,
Lovett, Merton Rooks,
McDermott, William Laurence,
McDonald, Karl,
Newman, Max Gibson,
Nichols, Leroy Cleveland,
Norwood, Henry Eugene,
Olds, Robert Franklin,
Owen, George Stuart,
Plummer, Arthur Bartlett,
Porter, Roy Hiram,
Prince, Charles Edward,
Reed, Frank Radford, Jr.,
Reynolds, Thomas Harold,
Richards, Earle Revere,
Richardson, Alton Willard,
Rogers, David Nathan,
Ross, Harold Dockum,
Sawyer, Edgar John,
Sherman, Raphael Simmons,
Simmons, John Percy, Belfast, University Hall.
Smith, Ralph Seldon, Orono, 44 Main St.
Southard, Frederick Dean, Dorchester, Mass., Φ. Γ. Δ. House.
Sparrow, Arthur Leonard, South Orleans, Mass., Miss
Stanford, Edward Arthur, [A. T. Emery.
Stevens, Fred Oramel, Lovell Center, 304 Oak Hall.
Tarbox, George Roger, Farmington, 108 Oak Hall.
Wallace, James Gordon, Calais, 302 Oak Hall.
Weick, Frank Bridge, Portland, B. O. II. House.
Weymouth, Arthur Pettengill, Springfield, Bangor.

FRESHMEN

Aiken, Edith Nora, Brewer, Brewer.
Alexander, William Wesley Banister, Everett, Mass., [University Hall.
Allen, Frank Samuel, Jr., Brewster, Mass., 109 Oak Hall.
Alton, Francis Osgood, Lynn, Mass., 2 Pine St.
Ames, John Atwood, Lewiston, University Hall.
Baletine, Marion, Orono, Mt. Vernon House.
Barrows, Lucius Dwelley, Foxcroft, Mr. E. E. Webster.
Bates, John Thaxter, Calais, 39 North Main St.
Beale, Florence Gladys, Orono, 47 Main St.
Bean, Chester Howe, Bethel, 27 Main St.
Bean, Perry Ashley, Albany, University Hall.
Beedle, Arthur Lawrence, South Gardiner, Orono House.
Bird, Sidney Morse, Rockland, B. Θ. Ρ. House.
Black, Walter Wright, Beverly, Mass., 101 Oak Hall.
Blaisdell, Minot Sumner, Fort Fairfield, 102 Oak Hall

[Annex.
Brooks, Joseph Henry, Milltown, 1 Peters St.
Brown, Amon Benjamin, Center Lincolnville, University [Hall.

Bucknam, Ralph Emerson, Eastport, 3 Peters St.
Burns, Caleb Edgar Siocomb, Fort Fairfield, Φ. Γ. Δ. House.
Carney, Richard Irving, Sheepscot, Pine St.
<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cayting, Arno Burr</td>
<td>Brewer, 5 Main St.</td>
</tr>
<tr>
<td>Claflin, Francis Marsh Albee</td>
<td>Upton, Mass., 5 Main St.</td>
</tr>
<tr>
<td>Clayton, Robert Edmund</td>
<td>Bangor, K. Σ. House.</td>
</tr>
<tr>
<td>Cobb, Fred Leslie</td>
<td>Marion, Mass., Mr. E. E. Web [ster.</td>
</tr>
<tr>
<td>Coffin, Roy Selwin</td>
<td>Bangor, 103 Oak Hall.</td>
</tr>
<tr>
<td>Connell, Bennett Robert</td>
<td>Houlton, Mrs. Hayes.</td>
</tr>
<tr>
<td>Cummings, Elmer Wallace</td>
<td>Paris, University Hall.</td>
</tr>
<tr>
<td>Davis, Charles Eugene</td>
<td>Bridgton, Orono House.</td>
</tr>
<tr>
<td>Druery, Edward James</td>
<td>Augusta, 10 Myrtle St.</td>
</tr>
<tr>
<td>Erskine, Fred Stoddard Neville</td>
<td>East Boston, University Hall.</td>
</tr>
<tr>
<td>Eveleth, Harry Pope</td>
<td>Greeneville Junction, 2 Pine St.</td>
</tr>
<tr>
<td>Flanigan, James Aloysius</td>
<td>Bangor, Bangor.</td>
</tr>
<tr>
<td>Fogg, Charles Matthew</td>
<td>Cornish, Orono House.</td>
</tr>
<tr>
<td>Foster, Roberto Mower</td>
<td>Lisbon, Φ. K. Σ. House.</td>
</tr>
<tr>
<td>Gay, Thomas Edward</td>
<td>Auburn, 10 Pine St.</td>
</tr>
<tr>
<td>Gellerson, Rex</td>
<td>Fort Fairfield, 3 Peters St.</td>
</tr>
<tr>
<td>Gilmore, Alvin Leroy</td>
<td>Bath, Φ. Γ. Δ. House.</td>
</tr>
<tr>
<td>Goodrich, Joe Kinsman</td>
<td>Skowhegan, K. Σ. House.</td>
</tr>
<tr>
<td>Haines, Willis Nathan</td>
<td>Dexter, B. Θ. Π. House.</td>
</tr>
<tr>
<td>Hardy, Louis Mason</td>
<td>York Harbor, Σ. X. House.</td>
</tr>
<tr>
<td>Harlow, Edward Thomas</td>
<td>South Brewer, 5 Main St.</td>
</tr>
<tr>
<td>Harvell, John Perham</td>
<td>Red Beach, 43 North Main St.</td>
</tr>
<tr>
<td>Hayward, Guy Edwin</td>
<td>Winthrop, Φ. Γ. Δ. House.</td>
</tr>
<tr>
<td>Hilliard, Stanley Tyng</td>
<td>Oldtown, Φ. Γ. Δ. House.</td>
</tr>
<tr>
<td>Hodgkins, Alden E.</td>
<td>Damariscotta Mills, Pine St.</td>
</tr>
<tr>
<td>Hodgkins, Lincoln Hall</td>
<td>Bunker Hill, Mr. Warren Reed.</td>
</tr>
<tr>
<td>Holbrook, Franklin Pratt</td>
<td>Brooks, Oak Hall Annex.</td>
</tr>
<tr>
<td>Hooper, Elmer Guy</td>
<td>Lynn, Mass., University Hall.</td>
</tr>
<tr>
<td>Hosmer, Fred Pote</td>
<td>Rockland, A. T. Ω. House.</td>
</tr>
<tr>
<td>Hussey, Erwin Howard</td>
<td>Guilford, University Hall.</td>
</tr>
<tr>
<td>Hutchins, Wilbury Owen</td>
<td>Orland, 32 North Main St.</td>
</tr>
<tr>
<td>Illingworth, Miles William</td>
<td>Northboro, Mass., Φ. Γ. Δ. House.</td>
</tr>
</tbody>
</table>
UNIVERSITY OF MAINE

Iversen, Arthur,
Jordan, Victor Burns,
Judkins, Ernest Laroy,
Keene, Leroy David,
Keirstead, Horton Wilmot,
Knowlton, Herbert Austin,
Lambe, Emerson Peavy,
Lambe, Reginald Robert,
Lekberg, Carl Henry,
Lisherness, Ernest,
Lord, Arthur Russell,
Lowell, Jabez Stubbs,
Lunt, Harvey Melville,
McKenzie, Herman Ellis,
Maddocks, Frank Everett,
Malloy, Thomas Angelo,
Mansfield, Mildred Charlotte,
Marr, Leon Herbert,
Matheas, Fred Walter,
Matheieu, Joseph Clarence,
Merrill, Joseph Farrington,
Nickles, Herbert Lewis,
Orne, Sidney Baxter,
Packard, Harry Ellsworth,
Pennell, Alcot Johnson,

Perry, Donald Cushman,
Perry, Theodore Bigelow,
Philbrook, Earle Walter,
Philbrook, Howard Grenville,
Pierce, Stephen Franklin,
Potter, Melville Randolph,
Purington, Heber Penn,
Putnam, Edward Payson,
Quint, Raymond Alton,
Read, Carroll Arthur,
Reed, Lowell Jacob,
Reynolds, James Allen,

Portage Lake, S. X. House.
Hartland, Mr. J. P. Spearen.
Skowhegan, University Hall.
Norway, F. K. Σ. House.
Oakland, 104 Oak Hall.
West Pembroke, Prof. Bartlett.
Calais, 43 North Main St.
Calais, 1 Pine St.
E. New Portland, Φ. Γ. Δ. House.
Ipswich, Mass., University Hall.
Bangor, B. Θ. Π. House.
Lewiston, Κ. Σ. House.
West Jonesport, Oak Hall Annex.
Bluehill, University Hall.
Lewiston, 103 Oak Hall Annex.
Orono, 16 Bennoch St.
Farmington, University Hall.
Bangor, 103 Oak Hall.
Farmington, University Hall.
Auburn, University Hall.
Cherryfield, 5 Main St.
Boothbay Harbor, 10 Pine St.
East Winthrop, 4 Forest St.
Melrose Highlands, Mass., University Hall.

Island Falls, 2 Bennoch St.
Island Falls, 2 Bennoch St.
Milan, N. II., Β. Θ. Π. House.
Shelburne, N. H., Β. Θ. Π. House.
Cooper's Mills, 10 Myrtle St.
White Plains, N. Y., University Hall.

Jay, Oak St.
Waterville, 5 Main St.
North Berwick, Orono House.
Stillwater, Stillwater.
Port Deposit, Md., Mt. Vernon House.
Ridge, Reginald, Portland, K. Σ. House.
Rockwood, Noel Mumford, Calais, 1 Peters St.
Rogers, Walter Emerson, Springvale, 36 Main St.
Rounds, Albert Prentiss, Bridgton, Orono House.
Ryan, Charles Lorin, Dexter, University Hall.
St. Onge, Walter James, Dover, Mr. E E. Webster.
Sampson, Arthur Haskell, Gorham, 204 Oak Hall.
Scammell, William Francis, Berlin Mills, N. H., 5 Main St.
Schoppe, William Freeman, West Auburn, Oak Hall Annex.
Seamon, Percy Ralph, Roxbury, Mass., 35 Mill St.
Sherman, Waldo Alfred, Island Falls, 2 Bennoch St.
Simmons, Frederick Johnson, Morrill, University Hall.
Smith, Herbert Henry, East Corinth, 27 Main St.
Smith, Oscar Samuel, Alton, 32 North Main St.
Stetson, Everett Halliday, Auburn, 209 Oak Hall.
Stetson, Howard Carlton, Auburn, Φ. K. Σ. House.
Stevens, Albert William, Belfast, Mr. J. M. Craig.
Stevens, Otis Black, Presque Isle, Mr. J. M. Craig.
Stone, William Elmer, South Brewer, Φ. K. Σ. House.
Swift, PORTER LaForest, Norway, 306 Oak Hall.
Talbot, Richard Foster, Andover, South Corinth, Mt. Vernon
Tate, Edith Mabel, [House.

Tebbets, Charles Bucknam, Auburn, 10 Pine St.
Toner, Ernest Leroy, Auburn, Σ. X. House.
Twombly, Frank Wesley, Belfast, Φ. K. ζ. House.
Wadsworth, Charles Sabin, Canton Point, Σ. X. House.
Washburn, Willis Flye, China, Mrs. Hayes.
Webb, Hazel Kirke, Bridgton, Mt. Vernon House.
Wildes, Gordon Lunt, Skowhegan, K. Σ. House.
Williams, Benjamin Franklin, North Islesboro, Mrs. Hayes.
Wilson, Elmer Josiah, Lynn, Mass., Σ. X. House.
Witham, Lester Clyde, North Anson, 47 Main St.
Wyman, Abel Percival, Skowhegan, University Hall.
York, Verne Jerome, Bangor, Bangor.
UNIVERSITY OF MAINE

SHORT PHARMACY COURSE

SOPHOMORES

Chandler, Mary Ruggles, Columbia Falls, Mt. Vernon
House.
Derby, Frank Albert, Temple, Oak St.
Huen, Charles John, Sabattus, University Oak St.
Kittredge, John Raymond, Rockland, 19 Myrtle St.
Sikes, Walter Scott, Three Rivers, Mass., 19 Myrtle St.
Talbot, James Rich, East Machias, 309 Oak Hall.

FRESHMEN

Bean, Ralph Downing, Bangor, Bangor.
Black, Everett Taylor, Dedham, Mrs. Stevens.
Hurd, William Bromley, North Berwick, University Hall.
Knight, Mary Louise, North Bridgton, Mt. Vernon
House.
Maxwell, John Willard, Winthrop, University Hall.
Reemie, Edgar Warren, East Machias, 21 Pine St.
White, Edgar Albert, Orono, Bennoch St.

SPECIAL STUDENTS

Barrows, Arad Thompson, Burleigh, 12 Main St.
Bird, Ralph Butler, Rockland, B. Θ. Ρ. House.
Bye, Terschek Frauzoir, Kennebunk, Φ. Γ. Δ. House.
Clark, Elizabeth L., Bangor, Bangor.
Clarke, George Bryant, Newport, 36 Main St.
Colcord, Maude Brown, Searsport, Mt. Vernon House.
Downing, Herbert Plummer, Ripley, Miss A. T. Emery.
Fagan, James Patrick Vincent, Oldtown, Oldtown.
Farnham, Walter Elwood, Canaan, K. Σ. House.
Farnsworth, James Pitt, Millbridge, Mr. G. L. Spaulding.
Fifield, Ralph Herbert, Dexter, F. G. Δ. House.
Hall, William Dickson, Rockland, F. G. Δ. House.
Hammann, Alfred Hugo, East Blackstone, Mass., 301 Oak
[Hall Annex.
Kiley, Fred James, Norwood, Mass., 35 Mill St.
Larrabee, Bertrand Cushing, Dover, Mr. O. T. Goodridge.
Lemassena, Clement French, Newark, N. J., Mr. G. L.
[Spaulding.
Lincoln, Samuel Bicknell, East Blackstone, Mass., 304 Oak
[Hall Annex.
McLain, William Alvin, Rockland, Alec Latno.
Macomber, Carlton Hambly, Portsmouth, R. I., 35 Mill St.
Pilott, John Langford, Plymouth, Mass., Miss A. T.
[Emery.
Palmer, Harold Stevens, Bangor, Σ. X. House.
Robertson, Bernard Ernest, Detroit, Mr. G. L. Spaulding.
Siegel, Benjamin Ulman, Salt Lake City, Utah, B. Θ. Π.
[House.
Stone, Mabel Annette, East Winthrop, Mt. Vernon
[House.
Whitmore, Albert Ames, Fryeburg, Miss A. T. Emery.
Wilson, Edgar Kennard, Portland, Σ. X. House.
Wilson, Robert Potter, Portland, 102 Oak Hall.

SCHOOL OF AGRICULTURE

Bailey, Herbert Barton, Biddeford, 55 Main St.
Black, Hedley Chapman, Winthrop, Campus.
Dinsmore, Azor Baker, Charlotte, University Hall.
Dove, John, Andover, Mass.
Garland, Clarence Leroy, Bangor, F. G. Δ. House.
Wakefield, Mark Harlan, Biddeford, 102 Oak Hall Annex.

SUMMER SCHOOL

Allen, Lucy E., East Bernard, Vt., Mt. Vernon
[House.
Beale, Florence Gladys, Orono, 47 Main St.
Blake, Etta S., Presque Isle, Mt. Vernon House.
Burgess, J. Fred, Bangor, Bangor.
Burnham, Agnes Rowena, Houlton, Oldtown.
Burrill, Fred Wilson, Woodfords, Bangor.
Cheney, Myrtle D, Calais, Mt. Vernon House.
Cleland, Galen Snow, Bangor, Mt. Vernon House.
Heyhoe, Albert George, Norway, Bangor.
Holmes, Ernest Randall, West Newfield, F. G. A. House.
Mitchell, Fred Carlton, South Newburg, Bangor.
Smith, Edward Henry, East Winthrop, Mt. Vernon House.
Tower, Eva L., Skowhegan, Mt. Vernon House.
Waldron, William Linscott, Sangerville, Bangor.
Wass, Clifton Ennis, Orono, Penobscot St.
Webster, Robert Adelbert, Orono, Penobscot St.

SHORT COURSES IN AGRICULTURE, 1903

[The list of students in these courses has been already printed in the Annual Catalogue for 1902–1903, which was published subsequent to their registration.]

THE COLLEGE OF LAW

GRADUATE STUDENTS

Cook, Harold Elijah, LL. B., Waterville.
University of Maine, 1900.

Dunn, Patrick Henry, LL. B., Bangor, Bass Building.
University of Maine, 1902.

University of Maine, 1895.

Geary, Thomas Reardon, LL. B., Bangor, 20 State St.
University of Maine, 1903.

New York University, 1903.

Lord, Harry, LL. B., Bangor, 82 Cumberland St.
University of Maine, 1902.
Mackay, John Daniel, LL. B.,  
University of Maine, 1900.
Merrill, John Bryant,  
Bangor, 26 Jefferson St.
Mudgett, Ulysses Grant, LL. B., Hampden.
University of Maine, 1903.
Noble, Ernest Eugene, B. A.,  
Blaine.
Colby College, 1897. LL. B., University of Maine, 1903.
Colby College, 1899. LL. B., University of Maine, 1902.
Plumstead, Frank, B. A.,  
Bangor, Morse-Oliver Building.
Bates College, 1896. LL. B., University of Maine, 1901.
Reid, Charles Hickson, LL. B., Bangor, 60 Lincoln St.
University of Maine, 1903.
Robinson, William Henry, LL. B., Bangor, 42 Hammond St.
University of Maine, 1902.
Selkirk, Robert William, LL. B., Bangor, 16 Broad St.
University of Maine, 1902.
Snow, Donald Francis, B. A., Bangor, 134 Ohio St.
Bowdoin College, 1900. LL. B., University of Maine, 1903.
Violette, Nil Louis, B. A., Bangor, 105 Third St.
St. Mary's College. LL. B., University of Maine, 1903.
Waterhouse, William Henry, LL. B., Oldtown.
University of Maine, 1900.

SENIORS

Bartlett, Mark Jonathan, Ph. B., Montville, 25 State St.
University of Maine, 1901.
Blanchard, Benjamin Willis, Bangor, 118 Congress St.
Bryant, Glidden, Newcastle, 151 Ohio St.
Clarke, Edward Everett, New Bedford, Mass., 50 Charles St.
Clough, George Edwin, Monson, Mass., 16 Everett St.
Haley, John Howard, Cornville, 250 Hammond St.
Ham, John Chellis, M. D., Belfast, 25 State St.
Dartmouth College, 1889.
Hight, Clarence Bertram, Athens, 197 Warren St.
Lang, Alfred Alexander, Vicques, P. R., 17 Garland St.
Lougee, George, Bangor, 16 Everett St.
Putnam, Edgar Burnham, B. A., Danforth, 250 Hammond St.
Colby College, 1901.
Sipprelle, Judson Emery, Bangor, 197 Warren St.
Juniors

Bridges, Ansel Harrison, Easton, Oldtown.
Brown, Leon Gilman Carleton, Milo, 16 Everett St.
Brown, Royal Weaver, Boyd Lake, 151 Ohio St.
Crawford, Adolphus Stanley, Oldtown, Oldtown.
Doyle, Joseph Henry, Franklin, 458 Hammond St.
Foster, Walter Herbert, Bangor, 38 Mt. Hope Ave.
Head, Frank Samuel, Jackman, 25 State St.
Keyes, Orman Leroy, Stetson, 16 Everett St.
Lancaster, Arthur Blaine, Gardiner, 239 Union St.
Linehan, Daniel Joseph, Bradford, Mass., 100 Ohio St.
Littlefield, Eben Frank, Brooks, 458 Hammond St.
Locke, Adelbert Yaton, Farmington, 124 Essex St.
Robinson, Curville Charles, East Machias, 123 Essex St.
Smalley, Charles Tobias, Rockland, 151 Ohio St.
Wall, Erastus Lewis, B. A., Bangor, 25 State St.
Winslow, Joseph Towne, New Bedford, Mass., 250 Hammond St.

First Year

Brooks, Gerry Lynn, Upton, 185 Pine St.
Burgess, J. Fred, Bangor, 77 James St.
Burnham, Elmer John, Kittery, 75 Hammond St.
Colby, James Adams, Lynn, Mass., 191 Union St.
Conners, Charles Patrick, B. A., Bangor, 354 State St.
Bowedin College, 1903.
Cowan, George Albert, Hampden, Hampden.
Davis, Waldo Fevor, B. A., Clinton, Mass., 50 Charles St.
Dartmouth College, 1901.
Fox, Lewis Edwin, Lovell, 91 Fifth St.
Gardner, Herbert Nelson, B. A., Patten, 17 Somerset St.
Bowdoin College, 1898.
Harris, Moses Harry, Auburn, 290 Main St.
Hasty, Percy Albert, Brooks, 191 Union St.
Leary, Thomas Edward, East Hampden, East Hampden.
Lord, Harrard Harlow, Ellsworth, 151 Ohio St.
Pike, George William, Lisbon, N. H., 91 Fifth St.
Roix, William Richard, Bangor, 124 Essex St.
Ross, Harry Francis, B. A.,  
Harvard University, 1887.
Sullivan, John Edward,  
Trescott,  
Sweet, Lucius Black,  
West Hollis,  
Warren, William Moncena, B. A., Bangor,  
Bowdoin College, 1901.

**SPECIAL STUDENTS**

Andrews, Percy Melville, B. A., West Sumner,  
Colby College, 1901.
Clark, Dana L.,  
Belgrade Lakes,  
Dunn, Brion Joseph,  
Bangor,  
Johnson, William Asbury,  
Milo,  
Junkins, Samuel Howard,  
York Corner, 458 Hammond St.
Nelson, John Edward, B. A., Waterville,  
Colby College, 1898.

**SUMMARY**

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Students</td>
<td>9</td>
</tr>
<tr>
<td>Seniors</td>
<td>73</td>
</tr>
<tr>
<td>Juniors</td>
<td>83</td>
</tr>
<tr>
<td>Sophomores</td>
<td>86</td>
</tr>
<tr>
<td>Freshmen</td>
<td>133</td>
</tr>
<tr>
<td>Short Pharmacy, Sophomores</td>
<td>7</td>
</tr>
<tr>
<td>Freshmen</td>
<td>7</td>
</tr>
<tr>
<td>Special Students</td>
<td>14</td>
</tr>
<tr>
<td>School of Agriculture</td>
<td>29</td>
</tr>
<tr>
<td>Summer School</td>
<td>6</td>
</tr>
<tr>
<td>Short Courses in Agriculture, 1903</td>
<td>19</td>
</tr>
<tr>
<td>School of Law, Graduate Students</td>
<td>18</td>
</tr>
<tr>
<td>Seniors</td>
<td>12</td>
</tr>
<tr>
<td>Juniors</td>
<td>16</td>
</tr>
<tr>
<td>First Year</td>
<td>19</td>
</tr>
<tr>
<td>Special Students</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>541</td>
</tr>
<tr>
<td>Names counted twice</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>539</td>
</tr>
</tbody>
</table>
## Index

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absence from examinations</td>
<td>33</td>
</tr>
<tr>
<td>Admission, by certificate</td>
<td>48</td>
</tr>
<tr>
<td>by examination</td>
<td>41</td>
</tr>
<tr>
<td>local examinations for</td>
<td>41</td>
</tr>
<tr>
<td>requirements for,</td>
<td>41</td>
</tr>
<tr>
<td>of college graduates,</td>
<td>41</td>
</tr>
<tr>
<td>of special students,</td>
<td>40</td>
</tr>
<tr>
<td>preliminary examinations for</td>
<td>40</td>
</tr>
<tr>
<td>to advanced standing,</td>
<td>40</td>
</tr>
<tr>
<td>to College of Law,</td>
<td>119</td>
</tr>
<tr>
<td>to special, and extension, courses</td>
<td>41</td>
</tr>
<tr>
<td>Agricultural chemistry,</td>
<td>76</td>
</tr>
<tr>
<td>Agricultural course,</td>
<td>101</td>
</tr>
<tr>
<td>Agricultural Experiment Station, building</td>
<td>100</td>
</tr>
<tr>
<td>Council, publications</td>
<td>107</td>
</tr>
<tr>
<td>Agriculture, College of,</td>
<td>79</td>
</tr>
<tr>
<td>courses,</td>
<td>100</td>
</tr>
<tr>
<td>School of,</td>
<td>105</td>
</tr>
<tr>
<td>special course,</td>
<td>104</td>
</tr>
<tr>
<td>extension courses,</td>
<td>104</td>
</tr>
<tr>
<td>Alumni associations,</td>
<td>11</td>
</tr>
<tr>
<td>hall,</td>
<td>22</td>
</tr>
<tr>
<td>Animal Industry,</td>
<td>80</td>
</tr>
<tr>
<td>Appointments,</td>
<td>130</td>
</tr>
<tr>
<td>Associations,</td>
<td>28</td>
</tr>
<tr>
<td>Astronomy,</td>
<td>69</td>
</tr>
<tr>
<td>Athletic field,</td>
<td>25</td>
</tr>
<tr>
<td>Bacteriology,</td>
<td>78</td>
</tr>
<tr>
<td>Biological chemistry,</td>
<td>76</td>
</tr>
<tr>
<td>Biology,</td>
<td>78</td>
</tr>
<tr>
<td>Board,</td>
<td>37</td>
</tr>
<tr>
<td>Bond,</td>
<td>37</td>
</tr>
<tr>
<td>Botany,</td>
<td>82</td>
</tr>
<tr>
<td>Buildings and equipment,</td>
<td>20</td>
</tr>
<tr>
<td>Bulletins of the experiment station,</td>
<td>107</td>
</tr>
<tr>
<td>Calendar,</td>
<td>6</td>
</tr>
<tr>
<td>Catalogue, annual,</td>
<td>29</td>
</tr>
<tr>
<td>short,</td>
<td>29</td>
</tr>
<tr>
<td>Certificate, admission by</td>
<td>48</td>
</tr>
<tr>
<td>Certificates, awarded in 1903, in agriculture,</td>
<td>126</td>
</tr>
<tr>
<td>Chemical course,</td>
<td>108</td>
</tr>
<tr>
<td>Chemistry,</td>
<td>72</td>
</tr>
<tr>
<td>Civil Engineering,</td>
<td>85</td>
</tr>
<tr>
<td>course,</td>
<td>110</td>
</tr>
<tr>
<td>Course</td>
<td>Page</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Civics</td>
<td>65</td>
</tr>
<tr>
<td>Classical course</td>
<td>98</td>
</tr>
<tr>
<td>Coburn Hall</td>
<td>22</td>
</tr>
<tr>
<td>College of Law, admission</td>
<td>119</td>
</tr>
<tr>
<td>advisory Board</td>
<td>9</td>
</tr>
<tr>
<td>courses of instruction</td>
<td>122</td>
</tr>
<tr>
<td>degrees</td>
<td>121</td>
</tr>
<tr>
<td>expenses</td>
<td>120</td>
</tr>
<tr>
<td>faculty</td>
<td>118</td>
</tr>
<tr>
<td>methods of instruction</td>
<td>120</td>
</tr>
<tr>
<td>Commencement, exercises of, 1903</td>
<td>126</td>
</tr>
<tr>
<td>Commencement, list of speakers, 1903</td>
<td>130</td>
</tr>
<tr>
<td>Courses of study</td>
<td></td>
</tr>
<tr>
<td>Agricultural</td>
<td>101</td>
</tr>
<tr>
<td>Chemical</td>
<td>108</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>110</td>
</tr>
<tr>
<td>Classical</td>
<td>98</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>113</td>
</tr>
<tr>
<td>Forestry</td>
<td>103</td>
</tr>
<tr>
<td>Horticultural</td>
<td>102</td>
</tr>
<tr>
<td>Latin-Scientific</td>
<td>98</td>
</tr>
<tr>
<td>Law</td>
<td>120</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>112</td>
</tr>
<tr>
<td>Mining Engineering</td>
<td>114</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>115</td>
</tr>
<tr>
<td>Scientific</td>
<td>99</td>
</tr>
<tr>
<td>Special</td>
<td>40</td>
</tr>
<tr>
<td>Dairy building</td>
<td>24</td>
</tr>
<tr>
<td>Dairying, winter course</td>
<td>105</td>
</tr>
<tr>
<td>Declamations</td>
<td>60</td>
</tr>
<tr>
<td>sophomore prize</td>
<td>39</td>
</tr>
</tbody>
</table>

| Degrees                               |      |
| advanced                              |      |
| conferred, 1903                       |      |
| College of Law, admission             |      |
| advisory Board                        |      |
| courses of instruction                |      |
| degrees                               |      |
| expenses                              |      |
| faculty                               |      |
| methods of instruction                |      |
| Commencement, exercises of, 1903      |      |
| Commencement, list of speakers, 1903  |      |
| Courses of study                      |      |
| Agricultural                          |      |
| Chemical                              |      |
| Civil Engineering                     |      |
| Classical                             |      |
| Electrical Engineering                |      |
| Forestry                              |      |
| Horticultural                         |      |
| Latin-Scientific                      |      |
| Law                                   |      |
| Mechanical Engineering                |      |
| Mining Engineering                    |      |
| Pharmacy                              |      |
| Scientific                            |      |
| Special                               |      |
| Dairy building                        |      |
| Dairying, winter course               |      |
| Declamations                          |      |
| sophomore prize                       |      |

<p>| Department of instruction             |      |
| Deposit                               |      |
| Dormitories                           |      |
| Drawing                               |      |
| Drill, hall                           |      |
| military                              |      |
| Electrical engineering                |      |
| course                                |      |
| Endowment of the University           |      |
| English                               |      |
| Entomology                            |      |
| Entrance, dates of examinations       |      |
| examinations                          |      |
| requirements                          |      |
| Essays                                |      |
| Establishment of the University       |      |
| Examinations, arrearage               |      |
| entrance                              |      |
| rules, with regard to                 |      |
| Excuses                               |      |
| Expenses of students                  |      |
| Experiment station                    |      |
| building                              |      |
| Council                               |      |
| Faculty, University                   |      |
| College of Law                        |      |
| Fees, laboratory                      |      |
| Fernald Hall                          |      |
| Forestry course, | 103 |
| Fraternities, | 28 |
| Fraternity houses, | 25 |
| French, | 57 |
| Geology, | 78 |
| German, | 58 |
| Graduation, requirements for, | 49 |
| Greek, preparatory courses, | 53 |
| Gymnasium, | 31 |
| Herbarium, | 27 |
| Histology, animal, plant, | 78 |
| History, | 66 |
| Honorary society, | 29 |
| Honors, conferred, 1903, | 131 |
| Horticultural, building, course, | 24 |
| Horticulture, special course in, | 104 |
| Income of the University, | 19 |
| International law, | 65 |
| Italian, | 58 |
| Junior exhibition, speakers, 1903, | 39 |
| Kidder scholarship, | 39 |
| Kittredge loan fund, | 38 |
| Laboratory charges, | 36 |
| Latin, | 34 |
| Latin-Scientific Course, | 98 |
| Law, | 122 |
| College of, | 118 |
| Liberal Arts, College of, | 98 |
| Library, | 25, 119 |
| Loans, | 38 |
| Loan fund, | 38 |
| Logic, | 63 |
| Lord Hall, | 23 |
| Machine shop, | 22 |
| Maine Bulletins, | 30 |
| Mathematics, | 67 |
| Mechanical engineering, course, | 112 |
| Military, drill, instruction, science, courses in, science, requirements in, | 30, 95 |
| Military uniform, | 30 |
| Mineralogy, | 73 |
| Mining Engineering Course, | 114 |
| Mt. Vernon House, | 24 |
| Museum, | 27 |
| Oak Hall, | 21 |
| Observatory, | 22 |
| Organization of the University, | 97 |
| Organizations, | 28 |
| Pharmacy, | 94 |
| College of, courses in, | 115 |
| Phi Kappa Phi, | 29 |
| Philological Club, | 28 |
| Philosophy, | 63 |
| Physical Training, | 31 |
| Physics, | 70 |</p>
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiology</td>
<td>77</td>
</tr>
<tr>
<td>Political economy</td>
<td>65</td>
</tr>
<tr>
<td>Prizes, awarded, 1903</td>
<td>129</td>
</tr>
<tr>
<td>Publications</td>
<td>29</td>
</tr>
<tr>
<td>Reading room</td>
<td>26</td>
</tr>
<tr>
<td>Regulations of the University</td>
<td>32</td>
</tr>
<tr>
<td>Reports, of the Experiment Station, of standing of the University</td>
<td>107</td>
</tr>
<tr>
<td>Rhetoric</td>
<td>61</td>
</tr>
<tr>
<td>Romance Languages</td>
<td>57</td>
</tr>
<tr>
<td>Rooms</td>
<td>37</td>
</tr>
<tr>
<td>Scholarship honors</td>
<td>33</td>
</tr>
<tr>
<td>Scholarships</td>
<td>39</td>
</tr>
<tr>
<td>Scientific Association</td>
<td>28</td>
</tr>
<tr>
<td>Scientific course</td>
<td>99</td>
</tr>
<tr>
<td>Shop</td>
<td>22</td>
</tr>
<tr>
<td>Short catalogue</td>
<td>29</td>
</tr>
<tr>
<td>Short courses</td>
<td>106</td>
</tr>
<tr>
<td>Societies</td>
<td>28</td>
</tr>
<tr>
<td>Sophomore prize declamations, speakers, 1902</td>
<td>130</td>
</tr>
<tr>
<td>Spanish</td>
<td>58</td>
</tr>
<tr>
<td>Special courses</td>
<td>40, 104</td>
</tr>
<tr>
<td>Special students</td>
<td>40</td>
</tr>
<tr>
<td>Standing committees of the faculty</td>
<td>16</td>
</tr>
<tr>
<td>Students, catalogue of</td>
<td>132</td>
</tr>
<tr>
<td>Students, number of</td>
<td>148</td>
</tr>
<tr>
<td>standing of</td>
<td>33</td>
</tr>
<tr>
<td>Studies, quota of</td>
<td>49, 32</td>
</tr>
<tr>
<td>Technology, College of</td>
<td>108</td>
</tr>
<tr>
<td>Text-books</td>
<td>36</td>
</tr>
<tr>
<td>Themes</td>
<td>60</td>
</tr>
<tr>
<td>Treasurer</td>
<td>9</td>
</tr>
<tr>
<td>Trustees, Board of</td>
<td>9</td>
</tr>
<tr>
<td>meetings of</td>
<td>6</td>
</tr>
<tr>
<td>Tuition, charges</td>
<td>36</td>
</tr>
<tr>
<td>loans</td>
<td>38</td>
</tr>
<tr>
<td>University, charter</td>
<td>18</td>
</tr>
<tr>
<td>buildings and equipment</td>
<td>20</td>
</tr>
<tr>
<td>circulairs</td>
<td>29</td>
</tr>
<tr>
<td>endowment</td>
<td>19</td>
</tr>
<tr>
<td>establishment</td>
<td>18</td>
</tr>
<tr>
<td>Guild</td>
<td>28</td>
</tr>
<tr>
<td>Hall</td>
<td>21</td>
</tr>
<tr>
<td>location</td>
<td>20</td>
</tr>
<tr>
<td>object</td>
<td>18</td>
</tr>
<tr>
<td>organization</td>
<td>97</td>
</tr>
<tr>
<td>Studies</td>
<td>29</td>
</tr>
<tr>
<td>Veterinary science</td>
<td>78</td>
</tr>
<tr>
<td>Wingate Hall</td>
<td>20</td>
</tr>
<tr>
<td>Winter courses</td>
<td>105</td>
</tr>
<tr>
<td>Women, admission of</td>
<td>40</td>
</tr>
<tr>
<td>Worship, public</td>
<td>32</td>
</tr>
<tr>
<td>Young Men's Christian Association</td>
<td>29</td>
</tr>
<tr>
<td>Zoology</td>
<td>77</td>
</tr>
</tbody>
</table>