

CALENDAR
OF
DALHOUSIE COLLEGE
AND
UNIVERSITY.

HALIFAX, NOVA SCOTIA.

1903-04.



HALIFAX :

PRINTED FOR THE UNIVERSITY BY THE McALPINN PUBLISHING CO., LTD.

1903.

1903-04.

TIME TABLE—FACULTIES OF ARTS AND SCIENCE.

CALENDAR

Years	Hours	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
First Year.	9	Lat. Chem.	Lat. Chem.	Lat. Chem.	Lat. Chem.	Lat. Chem.
	10	1st Math.	1st Math.	1st Math.	1st Math.	1st Math.
	11	2nd German.	English.	2nd German.	2nd French.	2nd German.
	12	Botany.	1st French.	1st German.	1st French.	1st German.
	13	1st German.	1st French.	1st German.	1st French.	1st German.
Second Year.	9	2nd German.	1st French.	2nd German.	2nd French.	2nd German.
	10	2nd Math.	2nd Chem.	2nd Math.	2nd Math.	2nd Math.
	11	Lat. Chem.	Chem.	Lat. Chem.	Chem.	Lat. Chem.
	12	English.	1st Physic.	English.	1st Physic.	English.
	13	2nd German.	2nd French.	2nd German.	2nd French.	2nd German.
Third Year.	9	2nd German.	2nd French.	2nd German.	2nd French.	2nd German.
	10	Adv. Gen. Geol.	Adv. Gen. Geol.	Adv. Gen. Geol.	Adv. Gen. Geol.	Adv. Gen. Geol.
	11	1st Physic.	1st Chem.	1st Physic.	1st Chem.	1st Physic.
	12	1st Math.	1st Chem.	1st Math.	1st Chem.	1st Math.
	13	2nd German.	2nd French.	2nd German.	2nd French.	2nd German.
Fourth Year.	9	2nd German.	2nd French.	2nd German.	2nd French.	2nd German.
	10	Adv. English.	Adv. English.	Adv. English.	Adv. English.	Adv. English.
	11	Adv. Gen. Geol.	Adv. Gen. Geol.	Adv. Gen. Geol.	Adv. Gen. Geol.	Adv. Gen. Geol.
	12	1st Physic.	1st Chem.	1st Physic.	1st Chem.	1st Physic.
	13	2nd German.	2nd French.	2nd German.	2nd French.	2nd German.

CONTENTS

DALHOUSIE COLLEGE

AND

UNIVERSITY.

HALIFAX, NOVA SCOTIA.

1903-04.



HALIFAX.

PRINTED FOR THE UNIVERSITY BY THE MCALEER PUBLISHING CO., LTD.

192.

N. B.—The days and hours of meeting of classes not mentioned in this Time Table will be arranged at the opening of the session.

*The time of meeting of the Botany Class may, in the interest of order, be changed.

CONTENTS.

PAGE	PAGE
University Almanac.....	52
Historical Sketch.....	VI
Benefactors.....	IX
Board of Governors.....	XIV
Resident Academics.....	XV
Academic Staff.....	XV
FACULTY OF ARTS—	
Constitution.....	1
General Regulations.....	4
Course of Instruction.....	4
The Academic Year.....	27
Degree of B. A.....	27
Junior Matriculation Examinations.....	28
Senior Matriculation Examinations.....	28
B. A. Course.....	28
Special Courses.....	28
Attendance.....	28
Class Exercises and Examinations.....	44
Degrees with Honours.....	46
Degrees with Distinction.....	47
Classes not qualifying for Degrees.....	47
Medals, Prizes, and Scholarships.....	49
Degree of M. A.....	49
Fees.....	50
FACULTY OF PURE AND APPLIED SCIENCE:	
Course of Instruction.....	51
The Academic Year.....	51
Admission of Students.....	61
Degrees.....	61
Matriculation Examinations.....	65
B. Sc. Courses.....	66
Special Courses for B. Sc.....	68
Degrees with Honours.....	68
Degrees with Distinction.....	68
Medals, Prizes and Scholarships	68
1911 Exhibition Science Research Scholarship.....	69
Degree of B. E.....	72
Scholarships and Prizes.....	74
B. Mus. Course.....	74
Short Courses.....	75
L. E. Diploma.....	75
Classes for Artisans.....	75
Summer School of Mining.....	75
Attendance.....	79
Class Exercises and Examinations.....	79
Residence, Church Attendance and Discipline.....	80
M. Sc. Degree.....	80
Fees.....	80
FACULTY OF LAW:	
Course of Lectures.....	82
Academic Year.....	82
Admission of Students.....	82
Degree of LL. B.....	82
Course of Study for LL. B.....	82
Seasonal Examinations.....	87
Most Courts.....	87
Residence and Discipline.....	88
Academic Costume.....	88
Library.....	88
Fees.....	88
FACULTY OF MEDICINE:	
Course of Instruction.....	89
Academic Year.....	89
Degrees.....	90
Matriculation Examinations.....	91
Primary M. D., C. M. Examination.....	95
Final M. D., C. M. Examination.....	95
Medals and Prizes.....	95
Residence.....	95
Discipline.....	95
Academic Costume, etc.....	95
Fees.....	95
INSTITUTIONS:	
The University Libraries.....	95
The University Museum.....	112
The Gymnasium.....	112
The Alumni Association.....	112
Students Societies.....	112
Affiliated Colleges.....	112
UNIVERSITY LIST:	
Degrees Conferred, 1902-03.....	122
Honours, etc., 1902-03.....	122
Examinations, 1902-03.....	122
Students, 1902-03.....	122
APPENDIX—EXAMINATION PAPERS 1902-03:	
Matriculation, Sir Wm. Young, and Professor's Scholarships, and Mackenzie Bursary.....	1

UNIVERSITY ALMANAC, 1903-1904.

1903.

- Aug. 13. Th.—Last day for receiving applications for Artium Preliminary Examination (Provincial Medical Board).
17. M.—Last day for receiving notices of Supplementary Examinations (Medical Faculty).
25. Tu.—Last day for receiving notices of Supplementary Examinations (Law Faculty).
27. Th.—Session (Medical Faculty) begins. Preliminary Examination (Prev. Medical Board) begins at 9 A. M. at Dalhousie College.
- Aug. 31. M.—Supplementary Examinations begin (Medical Faculty), 11 A. M.
 " " Results Preliminary Examination (Prev. Med. Board) declared, and certificates issued.
 " " Registration and payment of Class Fees (Medical Faculty) 11 A. M.
- Sept. 1. Tu.—Lectures begin at Halifax Medical College.
 " " Session begins (Law Faculty).
 10 A. M., Registration and payment of Class Fees.
 3 P. M., Supplementary Examinations.
2. W.—Lectures begin (Law Faculty).
3. Sa.—10 A. M., Meeting of Senate.
7. M.—Last day for receiving notices of Supplementary Examinations (Arts and Science Faculties).
8. Tu.—Session begins (Arts and Science Faculties).
 3 P. M., Registration of Candidates for Matriculation and Scholarship Examinations (Arts and Science Faculties).
9. W.—Examination for Junior and Senior Matriculation and for Entrance Scholarships (Arts and Science Faculties).
 9 A. M., Latin.
 3 P. M., Greek.
10. Th.—9 A. M., Geometry.
 11 A. M., Trigonometry.
 3 P. M., Arithmetic, Algebra.
11. F.—9 A. M., History and Geography.
 3 P. M., English.
12. Sa.—9 A. M., French.
 3 P. M., German.
13. M.—9 A. M., Chemistry.
 " 9 A. M., Supplementary Examinations begin (Arts and Science Faculties).
15. W.—9 A. M., Meetings of Faculties of Arts and Science.
 3 P. M., CONVOCATION. Address by Prof. J. Edmund Woodman, D. Sc.
17. Th.—Registration and payment of class fees (Arts and Science Faculties).
18. F.—Lectures begin (Arts, Science and Medical Faculties).
- Oct. 1. Th.—Intimation as to elective subjects to be made by undergraduates (Arts Faculty) on or before this day.
13. M.—Returns as to residence and church attendance to be made on or before this day.
- Th.—Thanksgiving Day. No lectures.
- F.—Munro Day. No lectures.

ERRATA.—On page 83, 3rd line from bottom, for Tacitus, *Historia*, Book I, read Tacitus, *Annales*, Book I.
 On page 41 strike out paragraphs 1-4.
 On page 42 strike out paragraph 1, and substitute for it paragraph 1 as given on page 41.

- Dec. 18. Th.—Last day of lectures (Arts and Science Faculties).
 19. Sa.—Christmas Examinations (Arts and Science Faculties) begin.
 9:00 A. M., Junior Philosophy, Senior Physics.
 2:00 P. M., Junior Physics, Education.
 15. M.—8:45 A. M., Latin.
 11:15 A. M., Senior History.
 2:00 P. M., Botany.
 15. Tu.—9:00 A. M., First and Second Mathematics.
 11:15 A. M., First English, Moral Philosophy.
 2:00 P. M., First English, Moral Philosophy.
 16. W.—8:00 A. M., Political Economy.
 11:15 A. M., Second and Fourth English.
 2:00 P. M., Chemistry, Senior Philosophy.
 17. Th.—9:00 A. M., Greek.
 11:15 A. M., French.
 2:00 P. M., First and Second Mathematics, Junior History.
 Applied Mechanics.
 18. F.—Christmas vacation begins. (Faculties of Arts and Science).
 19. Sa.—Christmas vacation begins. (Medical Faculty).
 20. Th.—Christmas vacation begins. (Faculty of Law).

1904.

- Jan. 5. Tu.—Lectures resumed (Faculties of Arts, Science, Law and Medicine).
 Feb. 17. W.—Ash Wednesday. No lectures.
 23. Th.—Last day of lectures (Faculty of Law).
 24. F.—Sessional Examinations begin (Faculty of Law).
 " 3 P. M., Equity; Real Property, 1st Year.
 27. Sa.—10 A. M., Evidence.
 3 P. M., Crimes.
 29. M.—10 A. M., Constitutional History; International Law.
 3 P. M., Constitutional Law.
 Mar. 1. Tu.—10 A. M., Sales.
 2. W.—10 A. M., Real Property, Advanced.
 3 P. M., Torts.
 3. Th.—8 A. M., Evidence.
 4. F.—10 A. M., Contracts; Conflict of Laws.
 3 P. M., Shipping.
 1. M.—Last day for receiving M. A. and M. Sc. Theses.
 20. W.—Last day for receiving applications for Primary and Final M. D., C. M. Examinations.
 Apr. 1. F.—Good Friday. No lectures.
 A. Tu.—Last day of lectures (Faculties of Arts and Science).
 7. Th.—Last day of lectures (Faculty of Medicine).
 " " Spring Examinations (Faculties of Arts and Science) begin.
 9:00 A. M., Junior and Modern Philosophy.
 3:00 P. M., Edinburgh, Mathematics.
 8. F.—9:30 A. M., Practical Chemistry (Laboratory, 1st Division).
 2:30 P. M., Practical Chemistry (Laboratory, 2nd Division).
 9. Sa.—8:00 A. M., Latin.
 2:00 P. M., French, Advanced Geology.
 11. M.—Class certificates (Medical Faculty, and Hx. Med. College), issued on presentation of class for receipts at Registrar's office, Dalhousie College, H A. M., and at Secretary's office, Hx. Med. College, respectively.
 8:00 A. M., Second and Third English, Elementary Geology.
 3:00 P. M., Junior Physics.

- Apr. 11. Tu.—3:00 A. M., First English, Additional Third English, Practical Physics.
 2:00 P. M., Sen. Physics; Addit. Jun. and Modern Philosophy.
 13. W.—Primary and Final M. D., C. M. Examinations begin.
 9:00 A. M., Practical Anatomy, Junior Anatomy.
 2:00 P. M., Additional Latin; Physiology and Histology; Obstetrics and Diseases of Women and Children.
 14. Th.—9:00 A. M., Junior Chemistry.
 3:00 P. M., Junior and Senior History; Senior Anatomy; Surgery.
 15. F.—9:00 A. M., Greek; Zoology.
 2:00 P. M., Moral Philosophy; Senior Chemistry; Medicine.
 16. Sa.—9:00 A. M., Addit. Greek; Addit. French; Botany; Oral Examination in Chemistry.
 2:00 P. M., Orale in Primary M. D., C. M., Sect. A.
 2:00 P. M., German.
 17. M.—8:00 A. M., Mathematics; Addit. Sen. Physics; Medical Physics.
 2:00 P. M., Addit. History; Addit. First and Second English; Pathology and Bacteriology.
 19. Tu.—8:00 A. M., Addit. Mathematics; Addit. Moral Philosophy; Clinical Medicine, at Victoria General Hospital.
 2:00 P. M., Clinical Medicine at Victoria General Hospital.
 3:00 P. M., Additional Junior Physics; Applied Mechanics; Materia Medica and Therapeutics.
 20. W.—9:00 P. M., Additional German; Clinical Surgery at Victoria General Hospital; Medical Jurisprudence and Hygiene.
 2:00 P. M., Clinical Surgery at Victoria General Hospital.
 3:00 P. M., Addit. Political Economy.
 21. Th.—2:00 P. M., Oral Examinations in Materia Medica and Therapeutics, Pathology and Bacteriology, Medical Jurisprudence and Hygiene.
 22. F.—2:00 P. M., Oral Examinations in Surgery, Medicine, Obstetrics and Diseases of Women and Children.
 23. Sa.—9:00 A. M., Meeting of Faculties of Arts and Science.
 4:00 P. M., Meeting of Faculty of Medicine.
 24. M.—8:00 A. M., Meeting of Senate.
 " " 10:00 A. M., Results of Examinations (Faculties of Arts, Science and Medicine), declared.
 29. Tu.—3:00 P. M., CONVOCATION.
 May 2. M.—Summer Session of Mining School begins.
 June 29. F.—Summer Session ends.

N. B.—The dates of the Examinations are liable to change as circumstances may demand.

HISTORICAL SKETCH.

DALHOUSIE COLLEGE was founded in 1818 by the Right Honourable George Ramsay, Ninth Earl of Dalhousie, "for the education of youth in the higher branches of science and literature."

The original endowment was derived from funds collected at the port of Castine, in Maine, during its occupation in 1814 by Sir John C. Sherbrooke, then Lieutenant-Governor of Nova Scotia.

In a letter to Lord Bathurst, dated December 14th, 1817, Lord Dalhousie, with the unanimous consent of the Council, proposed that £9,750 of these funds be devoted to the "founding of a College or Academy on the same plan and principle as that in Edinburgh," "open to all occupations and sects of religion, restricted to such branches only as are applicable to our present state, and having the power to expand with the growth and improvement of our society," and that this College be established in Halifax, "the seat of the legislature, of the courts of justice, of the military and the mercantile society," "in front of St. Paul's Church," on "the Grand Parade."

On the 6th of February, 1818, Lord Bathurst wrote expressing the Prince Regent's "entire approval of the application of the funds in question in the foundation of a Seminary in Halifax for the higher classes of learning."

The building was begun in 1819 and on the 22nd of May, in the year 1820, "the corner stone of this College, designed for a Public Seminary in which the youth of this and other British Provinces may be educated in the various branches of literature and science, was laid by His Excellency Lieutenant-General, the Right Honourable George Ramsay, Earl of Dalhousie, G. C. B., Captain-General and Governor-in-Chief in and over His Majesty's Provinces of Lower Canada, Upper Canada, Nova Scotia and New Brunswick, and the islands of Prince Edward and Cape Breton."

It was not until the 13th of January, 1821, that the "Bill to incorporate the Governors of Dalhousie College at Halifax" became law. The exterior of the building was completed about this time, and two rooms were fitted up for lectures. The total cost of the building to June 1822, was £11806.2s. currency, so a MS minute of the Board of Governors states.

The original Board of Governors consisted of the Governor-General of British North America, the Lieutenant-Governor of Nova Scotia, the Bishop, the Chief Justice and President of Council, the Provincial Treasurer and Speaker of the House of Assembly.

After unsuccessful efforts in 1823-4 and 1829-30 on the part of both the British Government and the Board of Governors to effect a union with King's College, the only other then existing in the Province, this College went into operation in 1838, under the Presidency of the Rev. Thomas McCulloch, D. D., and with a staff of three professors.

By an Act passed in 1841, University powers were conferred on the College, and the appointment of the Governors was vested in the Lieutenant-Governor and Council.

In 1843, President McCulloch died and in 1845, the College was closed, the Governors considering it "advisable to allow the funds of the institution to accumulate."

In 1848, an Act was passed authorizing the Lieutenant-Governor and Council to appoint a new Board of Governors "to take some steps for rendering the institution useful and efficient as to His Excellency may seem fit." This Board, from 1849 to 1859, employed the funds of the University to support a High School.

In 1856, the Arts department of the Gorham College, Liverpool, N. S., was transferred to this College "with a view to the furtherance of the establishment of a Provincial University," and an attempt was made to conduct the Institution as a University under the Act of 1841. This union, however, came to an end in 1857.

In 1863, the College was re-organized under the following Act:

An Act for the Regulation and Support of Dalhousie College.

(Passed the 20th day of April, A. D. 1863).

WHEREAS, it is expedient to extend the basis on which the said College is established, and to alter the constitution thereof, so as to the benefits that may be fairly expected from its invested capital and its central position may, if possible, be realized, and the design of its original founders, as nearly as may be, carried out.

Be it enacted by the Governor, Council, and Assembly, as follows:

1. The Board of Governors now appointed, consisting of the Honourable William Young, the Honourable Joseph Howe, Charles Tupper, S. Leonard Shannon, John W. Ritchie, and James F. Avery, Esquires, shall be a body public and corporate by the name and style of the Governors of Dalhousie College at Halifax, and shall have and exercise all usual powers and authorities as such, and have the title, control and disposition of the buildings on the Parade, at Halifax, and of the property and funds belonging to the said College and held for the use thereof, by the present Governors; and all vacancies at the Board shall be filled up on recommendation of the remaining members thereof by the Governor-in-Council; and any of the Governors shall be removed by the Governor-in-Council, at the instance of the Board of Governors.

2. Whenever any body of Christians, of any religious persuasion whatsoever, shall satisfy the Board that they are in a position to endow and support one or more chairs or professorships in the said College, for any branch of literature or science approved by the Board, such body in making such endowment, to the extent of twelve hundred dollars a year, shall have a right, from time to time, for every chair endowed, to nominate a Governor to take his seat at the Board with the approval of the Board of Governors and of the Governor-in-Council, and shall also have a right, from time to time, to nominate a Professor for such chair, subject to the approval of the Board of Governors; and in the event of the death, removal, or resignation of any person nominated under this section, the body nominating shall have the power to supply the vacancy thus created.

3. The same right of nominating a Professor from time to time shall belong to any individual or number of individuals, who shall endow to the same extent and support a chair or professorship, and to the nominee of any testator by whose will a chair or professorship may be so endowed.

4. The Governors shall have power to appoint, and to determine the duties and salaries of the President, Professors, Lecturers, Tutors, and other officers of the College, and from time to time to make statutes and by-laws for the regulation and management thereof, and

shall assemble together as often as they shall think fit, and upon such notice as to them shall seem meet, and for the execution of the trust hereby reposed in them.

5. The said College shall be deemed and taken to be a University, with all the usual and necessary privileges of such institutions; and the students shall have liberty and faculty of taking the degrees of bachelor, master, and doctor, in the several arts and faculties at the appointed times; and shall have liberty within themselves of performing all scholastic exercises for the conferring of such degrees, and in such manner as shall be directed by the statutes and by-laws.

6. No religious tests or subscriptions shall be required of the professors, scholars, graduates, students, or officers of the College.

7. The internal regulations of the said College shall be committed to the Senatus Academicus, formed by the respective chairs or professorships thereof, subject in all cases to the approval of the Governors.

8. The Legislature shall have power, from time to time, to modify and control the powers conferred by this Act.

9. The Acts heretofore passed in relation to Dalhousie College are hereby repealed, except the Act passed in the fourth year of his late Majesty King George the Fourth, entitled, "An Act authorizing the lending of a sum of money to the Governors of Dalhousie College, and for securing the payment thereof."

This Act was afterwards amended by the following Act:

An Act to amend the Act for the Regulation and Support of Dalhousie College.

(Passed the 6th day of May, A. D. 1875).

Be it enacted by the Governor, Council, and Assembly, as follows:

1. The present Board of Governors, consisting of nine persons, shall be increased to a number not exceeding fifteen; and the Board shall be filled up with new nominations made on the same principle as set forth in the first section of the Act hereby amended; and any of the Governors shall be removable, as heretofore by the Governor-in-Council.

2. The Governors shall have power to affiliate to Dalhousie College any other college desirous of such affiliation, or any schools in arts, in theology, in law, or in medicine, and to make statutes for such affiliations, and for the regulation and management thereof, on the same principles as obtain in other Universities, and to vary and amend such statutes from time to time. Provided, always, that such statutes of affiliation, before they go into effect, shall be submitted to and receive the sanction of the Governor-in-Council.

3. So much of Chapter 24 of the Acts of 1863, entitled, "An Act for the Regulation and Support of Dalhousie College," or of any other Act as is inconsistent with this Act, is repealed.

An Act to provide for the Organization of a Law Faculty in connection with Dalhousie College, and for other purposes.

(Passed the 14th day of April, A. D. 1881).

Be it enacted by the Governor, Council, and Assembly, as follows:

1. The Governors of Dalhousie College, at Halifax, shall in addition to the powers conferred on them by section 2 of Chapter 27 of the Acts of 1875, entitled, "An Act to amend the Act for the

Regulation and Support of Dalhousie College," have power to organize a Faculty of Law in connection with such College, and to appoint professors or lecturers in law, and out of the revenues of the College to provide for the maintenance and support of such Faculty, and to make rules for the regulation and management of such Faculty, and for the granting of degrees in law on the same principles as obtain in other Universities, and to vary and amend such rules from time to time.

2. Section 3 of Chapter 24 of the Acts of 1863, entitled, "An Act for the regulation and support of Dalhousie College," is amended by adding the words "and governor" after the word "professor" in the said section, and any individual who has hitherto endowed a chair or chairs in the College shall have a right to nominate a governor for each chair endowed, in the same way as if section 3 aforesaid had been originally passed as now amended.

3. Section 1 of the said Chapter 27 of the Acts of 1877, is amended by adding the words "provided, however, that in the event of any body of Christians, individual, or number of individuals, endowing and supporting one or more chairs or professorships in the said College, as provided by sections 2 and 3 of the Act hereby amended, and of such body of Christians or individuals nominating a professor or governor by virtue thereof, the number of governors may be increased beyond fifteen, but such increase shall be limited to the number of such chairs or professorships as may after the passing of this Act be founded by virtue of said sections 2 and 3."

In pursuance of the Act of 1863, the Presbyterian Church of the Lower Provinces closed their College, and agreed to support two chairs in this University; the Synod of the Maritime Provinces in connection with the Church of Scotland founded one chair; and the College opened in that year, under the principalship of Rev. James Ross, D. D., and with an Arts Faculty of six Professors. On the death of Principal Ross in 1883, and Professor Lyall in 1890, the Presbyterian Church withdrew the two professorships they had previously supported.

In 1868, a Faculty of Medicine was organized, which, in 1875, developed into the Halifax Medical College. In 1885 the Faculty was re-organized.

In 1885, the Faculty of Law, and, in 1891, the Faculty of Pure and Applied Science, were added.

In 1879, the late GEORGE MUNRO, of New York, a native of this province, placed in the hands of the Governors the funds necessary for the endowment of a Professorship of Physics. In 1881 he established a Professorship of History and Political Economy. In 1882, he founded a chair of English Language and Literature. In 1885 he added to the staff of the College a Professor of Constitutional and International Law. In 1884 he founded a Professorship of Philosophy. From 1883 till 1890 he provided Tutors in Classics and Mathematics. From 1880 to 1894 he provided the University with Exhibitions and Bursaries to the amount of \$83,148.09, which, according to his own desire, were so offered for competition as to stimulate to greater activity and efficiency the High Schools and Academies of Nova Scotia and the neighboring provinces.

The Governors desire to place on permanent record their high sense of Mr. Munro's enlightened public spirit, and their gratitude to him for the magnificent manner in which he came to their help in the work of building up an unsectarian University in Nova Scotia.

To connect the donor's name for all time with the benefits thus conferred both on the University and on his native country, the chairs which he founded shall be called the **GROVER MERRON CHAIRS OF PHYSICS, OF HISTORY AND POLITICAL ECONOMY, OF ENGLISH LANGUAGE AND LITERATURE, OF CONSTITUTIONAL AND INTERNATIONAL LAW, and of PHILOSOPHY, respectively.**

In 1882, **ALEXANDER McLEOD, Esq.** of Halifax, bequeathed to the University the residue of his estate. The following is an extract from his will :

"All the residue of my estate I give and bequeath to the Governors of Dalhousie College or University in the City of Halifax in trust, that the same shall be invested and form a fund to be called the **McLeod University Fund**, and the interest and income of which shall be applied to the endowment of three or more professorial chairs in said College as they may deem proper ; but this bequest is made upon these conditions, namely, that if at any time the said College or University shall cease to exist, or be closed for two years, or be made a sectarian College, then and in any such case, the said fund and all accumulations thereof shall go to the said Synod of the Maritime Provinces of the Presbyterian Church in Canada, to be used for the purposes of higher education in connection with said Synod, and it is further stipulated that no part of this fund shall ever be used, either by said Governors of Dalhousie College or by the said Synod, as a collateral security under any circumstances whatever."

According to the provisions of the will, the **McLEOD CHAIRS OF CLASSICS, CHEMISTRY, and MODERN LANGUAGES** were founded.

In 1886, the late **SIR WILLIAM YOUNG**, one of the oldest and best friends of the College, subscribed \$20,000 to start a Building Fund. In 1887, Sir William bequeathed to the University half the residue of his estate, together with a Prime Fund of \$4,000, and the amount remaining unpaid of his subscription to the Building Fund. The following are extracts from his will :

"I bequeath to the Governors of Dalhousie College at Halifax the sum of \$4,000 to be kept continually invested by them, and that they shall apply the income derived therefrom in founding and maintaining a prize of a gold medal to the value of \$50, to be called **Sir William Young's medal**, and to be annually awarded for scholastic eminence, and to have the recipient's name engraved thereon, with the year of his attendance at College, and in founding and maintaining such other prizes for distribution among the students of said College as the Governors may from time to time approve."

"Having agreed and promised to the Governors of Dalhousie College to pay them the sum of \$20,000 to aid in the erection of their building now in progress, I direct my executors to pay the said sum from time to time as it may be required by the said Governors."

"All the rest and residue of my estate I direct my executors to divide into two even and equal parts or shares, and to pay over one such part or share to _____, and the other part or share to the Governors of Dalhousie College at Halifax for the general purposes of said College."

"In the event of my having paid to Dalhousie College during my life-time any part of said sum of \$20,000 hereinbefore mentioned, as agreed to be paid to them to aid in the erection of the College buildings, I do direct my executors to pay to said Governors the balance only, if any, that may be due on said sum at the time of my decease."

On April 27th, 1887, the corner-stone of the new building was laid by Sir William Young.

In 1887, by the will of the late **J. F. AVERY, M. D.**, of Halifax, the following bequest was made to the College :

"I give and bequeath the sum of \$500 to Dalhousie College in the City of Halifax, to be at the disposal of the Senates of the said College, and the interest thereof to be appropriated for an annual prize."

In 1887, by the will of the late **MRS. HARRIET ELIZABETH MacKENZIE, of MORRISON, of SCOTSWAY, Scotland**, formerly of Picton, N. S., the following bequest was made to the College :

"To Dalhousie College, £1,000 for founding a bursary for students attending said College, subject to such conditions and regulations as the governing body of said College may appoint, but with this proviso that said bursary shall be called the **J. MacKenzie Bursary**; and that students of the name of MacKenzie, Maclean, and Fraser, shall have a preference in the selection of beneficiaries therefor."

In 1890, by the will of the late **JOHN P. MOTT, Esq.**, of Halifax, the following bequest was made to the College :

"I give and bequeath to the Board of Governors of Dalhousie College, or to such individuals or organization in whom or in which the control of such College shall be legally vested, the sum of ten thousand dollars, to be legally invested by the said Governors, individuals or organization, and the proceeds applied for the benefit of such College so long as it shall remain and continue to be a non-sectarian institution as at present."

In 1901, the College received the following bequest from the late **PROFESSOR CHARLES MACDONALD, M. A. :**

"To Dalhousie College Library Fund, two thousand dollars for the purchase of books chiefly in English literature ; the annual interest of this sum only to be employed or used."

The following amounts have been from time to time subscribed in aid of the College :

FIVE YEAR'S FUND, 1876-78.

Rev. G. M. Grant	\$ 200	John S. Maclean	\$ 100
John Doall	200	James Thompson	100
W. J. Waite	200	R. Morrow	100
Stanford Young	200	Stairs	100
Sir Wm. Young	100	Hon. J. North	100
Medical Faculty	100	H. H. Collins	100
Robert Cook	100	Alex. McLeod	100
Dr. Avery	100	J. Donaldson	100
Adam Burns	125	A. K. Mackenzie	100
Sir Charles Tupper	100	T. A. Ritchie	100
Principal Ross	100	E. Smith	100
Prof. Lawson	100	R. H. Stimmings	100
Prof. Johnson	100	Smaller sums	252
Prof. DeMeile	100		
Prof. Liecht	100	Total	\$1734

ENDOWMENT FUND, 1878.

Sir William Young	\$ 2000	Adam Burns	\$ 200
W. J. Stairs	200	Peter Jark	200
Hon. Scayler Brown	1000	Hon. J. Neelands	200
John Gibbons	1000	Prof. Lawson	200
John P. Mott	1000	Alex. McLeod	200
William P. West	1000		
Thomas A. Ritchie	1000	Total	\$10,200
Hon. Robert Cook	2000		

CURRENT EXPENSES, 1892-93.

Sir William Young	\$ 100	Geo. Thomson	\$ 100
John Donell	500	James Scott	100
J. S. Macdonald	200	A. K. Mackinlay	50
Thos. Hayne	200	Dr. Avery	50
J. Gilbert	200	J. Brenner	50
Rev. J. McMillan	200	Smaller sums	60
John Marshall	200		
President Forrest	150	Total	\$2300
A. G. Jones	150		

BUILDING FUND, 1893.

Rev. L. B. Jordan	\$ 500	Mr. Justice Graham	\$ 250
John Donell	150	James Scott	150
J. S. Macdonald	150	R. B. Sexton	150
H. Sedgewick	100	Rev. J. McMillan	100
Thos. Hayne	100	William Robertson	100
John Marshall	100	J. C. Mackintosh	100
Adam Burns	100	H. McDi Henry	100
Hon. H. Monk	100	T. A. Payment	100
Dr. Avery	100	Ingrison, Morrison & Forbes	100
President Forrest	275	J. J. Stewart	100
James Forrest	200	Rev. E. Scott	100
Professor Johnson	150	Peter Ross	100
Peter Jack	250	H. W. C. Cook	100
William Miller	250	Victoria Academy	100
Professor Macdonald	250	Smaller sums	640
Professor MacGregor	225		
A. & W. Mackinlay	225	Total	\$4835
Professor Alexander	200		

ENDOWMENT FUND, 1893.

T. E. Fraser	\$ 600	J. F. McLean	\$ 150
J. W. Carmichael	200	L. Longworth	100
Prof. Lawson	600	R. J. Turner	100
Prof. Macdonald	600	Geo. Campbell	100
Prof. Weldon	600	Mrs. J. H. Dickie	100
D. C. Fraser	250	T. C. Mahan	100
J. M. Carmichael	250	H. T. Southard	100
G. F. McKay	250	Hon. T. McKay	100
Prof. H. Murray	250	Smaller sums	1065
Stinchell & Patterson	150		
H. Mackenzie	200	Total	\$6735
C. H. Cahon	200		

FIVE YEAR FUND—CURRENT EXPENSES, 1892-93.

John Donell	\$ 1500	Rev. John McMillan	\$ 250
Adam Burns	2500	J. C. Mackintosh	250
W. J. Stairs	1500	A. F. Turnbull	250
Hon. H. Monk	1250	Dr. A. H. MacKay	250
Donald Keith	1000	Prof. Luedel	100
W. B. Ross	800	Dr. G. M. Campbell	150
President Forrest	750	W. Dennis	125
Prof. Johnson	500	H. W. Barnes	125
Prof. Russell	500	W. J. McDonald	125
T. Hetherle	500	James Thomson	100
Farnisher & Forrest	500	J. M. Stewart	100
Prof. W. Murray	500	J. H. McKenzie	100
Class of 1893	600	A. K. McLean	100
Prof. MacGregor	400	W. L. Cameron	100
Drysdale & McMillan	300	Smaller sums	1120
Dr. D. A. Campbell	300		
Dr. D. A. Murray	300	Total	\$8343
R. L. Barden	250		

DONATIONS TO UNIVERSITY LIBRARY.

1877.

The Lieutenant-Governor	\$ 400	W. A. Henry	\$ 100
John Tobin, M. P.	200	J. Stairs	100
Dr. Turner	100	Neal, White & Co.	50
James Thomson	100	G. P. Mitchell	50
Rev. G. M. Grant	100	Smaller sums	375
Dr. Avery	100		
J. A. Stinchell	100	Total	\$1725

SINCE 1882.

Alumni Association	\$ 706 75	Class of 1884	\$ 40 00
Prof. MacMechan course of Lectures	373 00	" 1886	30 00
Prof. Smith course of Lectures	215 00	" 1887	250 00
The Misses Howe	200 00	" 1888	50 00
Faculty of Arts	225 00	" 1889	25 00
A. D. Gunn, B. L.	100 00	" 1890	250 00
Adam Burns	75 00	" 1891	114 84
English Class	60 44	" 1892	100 00
Alex. McKay	50 00	" 1893	about 120 00
Prof. W. Murray	50 00		
H. Melnes	40 00		
Mrs. C. Archibald	25 00		\$1137 75
Medical Faculty	22 70		
H. H. Graham	20 00		
Smaller amounts	20 00		
Total	\$572 99		

MACDONALD MEMORIAL, 1892-93.

Subscribed to May 21	\$2193 00	Paid In	\$4724 67
----------------------	-----------	---------	-----------

GYMNASIUM FUND, 1891.

F. B. Chambers	\$ 50 00
Smaller sums	10 00
Total	\$216 00

LABORATORIES AND MUSEUM.

1890.

Sir William Young	\$ 600	Hon. J. Northrop	\$ 100
Prof. MacGregor	500	W. J. Stairs	100
Dr. Avery	500	W. P. West	100
Thos. Hayne	500	Smaller sums	1180
Hon. H. Monk	500		
Alex. McLeod	500	Total	\$2880
John Marshall	100		

1893.

Dr. Wm. McCulloch for maintenance of McCulloch Collection. \$2400.

SINCE 1891.

Dr. A. H. MacKay	\$1100 00	Prof. E. Mackay	\$ 600 00
Alumni Association	1129 31	Medical Faculty	127 30
		Total	\$2826 31

APPARATUS AND MATERIAL.

The McCulloch Collection, presented by Rev. Dr. McCulloch.
The Patterson Collection, presented by Rev. Dr. Patterson.

A Dynamo, Motor, and Switchboard, presented by Mr. F. Nichols.

The following portraits, views and busts have been presented to the College and are placed in the Libraries:

Portrait of George Munro, painted by J. Colin Forbes, and presented by Helen Munro Schurman; Portrait of Sir William Young, painted by Barrett, and presented by the Faculty of Arts; Portrait of Lord Dalhousie, painted by J. Watson Gordon, and engraved by Thomas Lupton, presented by Professor MacGregor; Portrait of Professor James DeMills, presented by Professor MacMechan; Portrait of John Young ("Agricola"), presented by his son, Judge Young, of Prince Edward Island; an Engraving of Fael's Hill in 1803, showing Melville Island, and an original Drawing of Halifax from Fort Needham, both presented by Miss Ellen Ritchie, Ph. D.; Photograph of a portrait of "Sam Slick," presented by his daughter, Mrs. Weldon; Photograph of Mr. Justice Sedgewick; Photograph of "Old Dalhousie," Bast of John Locke, presented by Professor MacGregor.

Dalhousie College & University.

BOARD OF GOVERNORS.

- JOHN F. STAINS, Esq., *Chairman*.
 HON. SIR CHARLES TEFPER, Esq., G. C. M. G., C. B., M. D., LL. D.,
 (CANTON, EDIN., and QUEEN'S), P. C.
 HON. ALFRED G. JONES, P. C., *Lieutenant-Governor*.
 HIS WORSHIP THE MAYOR OF HALIFAX, ex-officio.
 REV. JOHN FORREST, D. D., D. C. L., LL. D.
 REV. JOHN McMILLAN, D. D.
 REV. ROBERT MURRAY, LL. D.
 HON. WALLACE GRAHAM, A. B., *Judge of the Supreme Court*.
 A. H. MACKAY, F. R. S. C., LL. D., *Superintendent of Education*.
 D. A. CAMPBELL, Esq., M. D.
 HON. SIR ROBERT BOAK, *President Legislative Council*.
 HON. W. S. FIELDING, M. P., *Minister of Finance*.
 THOMAS RITCHIE, Esq.
 A. I. TREKMAN, Esq., M. A., D. C. L.
 HON. D. MACKEEN, Senator.
 REV. F. W. H. ARCHBOLD.
 CHARLES ARCHERDALL, Esq., M. E.
 J. WALTER ALLIBON, Esq.
 HECTOR McINNES, Esq., LL. B.
 HON. GEORGE MURRAY, *Premier of Nova Scotia*.
 HECTOR McINNES, LL. B., *Treasurer*.
 H. B. STAINS, B. A., LL. B., *Secretary*.

SENATUS ACADEMICUS.

- REV. JOHN FORREST, D. D., D. C. L., LL. D., *President*.
 JOHN JOHNSON, M. A., LL. D.
 RICHARD C. WELSON, M. A., PH. D., D. C. L., K. C.
 JAMES LEICHT, M. A.
 BENJAMIN RUSSELL, M. A., D. C. L., K. C., M. P.
 ARCHERDALL MacMECHAN, B. A., PH. D.
 WALTER C. MURRAY, M. A.
 HOWARD MURRAY, B. A., *Secretary*.
 KENNEDY MACKAY, B. A., PH. D.
 DANIEL A. MURRAY, B. A., PH. D.
 STEPHEN M. DUDY, M. A., B. A., I.
 J. EDMUND WOODMAN, M. A., SC. D.

ACADEMIC STAFF.

Faculties of Arts and Science.

- REV. PRESIDENT FORREST, D. D. Spain's, D. C. L. (Vind.), LL. D. (U. N. B.),
George Meade Professor of History and Political Economy.
 JOHN JOHNSON, M. A. (Vind.), LL. D. (Edin.), *Professor Classics*.
 JAMES LEICHT, M. A. (Vind.), *McLeod Professor of Modern Languages*.
 ARCHERDALL MacMECHAN, B. A. (Tol.), PH. D. G. H. U. A. *George Meade
 Professor of English Language and Literature*.
 WALTER CHARLES MURRAY, B. A. (U. N. B.), M. A. (Edin.), *George Meade
 Professor of Philosophy and Lecturer on Education*.
 HOWARD MURRAY, B. A. (London), *McLeod Professor of Classics*.
 KENNEDY MACKAY, B. A. (Vind.), PH. D. G. H. U. A. *McLeod Professor of
 Classics*.
 DANIEL ALEXANDER MURRAY, B. A. (Dall.) PH. D. (J. H. U.), *Professor of
 Mathematics*.
 STEPHEN McSWELL I DUDY, M. A., B. A. I. T. C. (Dall.), A. M. I. C. E.,
*George Meade Professor of Physics and Lecturer on Applied
 Mechanics*.
 JOSEPH EDMUND WOODMAN, M. A., SC. D., *Assistant Professor of Geology
 and Mineralogy*.
 J. W. LOGAN, B. A. (Dall.), *Lecturer on Classics*.
 PROF. H. A. FALCONER, M. A., B. D., (Edin.), LL. D. (U. N. B.), K. L. L. H.
 (Edin.), *Lecturer on Biblical Literature*.
 MARTIN MURPHY, D. Sc. (Vind.), C. E., *Provincial Government Engineer,
 Lecturer on Civil Engineering*.
 EDWIN GILLES, Esq., A. M. (Vind.), LL. D. (Dall.) D. Sc. (Vind.), F. R. S. C.,
Inspector of Mines, Lecturer on Mining.
 F. W. W. INANES, C. E., Halifax City Engineer, *Lecturer on Municipal
 Engineering*.
 C. E. DODWELL, B. A. (Vind.) M. L. C. E., M. C. S. C. E., *Resident Engineer
 Public Works of Canada, Lecturer on Hydraulic Engineering*.
 ROBERT McCOLL, M. C. S. C. E., *Assistant Provincial Engineer,
 Lecturer on Surveying*.
 ALEXANDER McKAY, *Superintendent of Public Schools, Lecturer on Practice of
 Education*.
 S. A. MORTON, M. A., (Dall.), *Lecturer on Descriptive Geometry*.
 CHARLES ARCHERDALL, M. E., *Lecturer on Mining*.
 H. W. JOHNSTON, M. C. S. C. E., *Lecturer on Surveying*.
 W. T. KENNEDY, *Principal Halifax County Academy, Lecturer on School
 Management and School Law*.
 G. J. MILLER, *Principal of Dartmouth Schools, Lecturer on History of
 Education*.
 F. H. MARSH, F. C. S., *Lecturer on Metallurgy*.
 H. S. POOLE, M. A., D. Sc. (Vind.), F. O. S., F. R. S. C., *Lecturer on Coal
 Mining*.
 JOSEPH G. S. HUDSON, M. E., *Lecturer on Coal Mining*.
 C. H. PORTER, JR., *Examiner in Theory of Music*.
 F. H. TORRINGTON, Mus. D., *Examiner in Theory of Music*.
 ROBERT LAING, M. A., (McGill), *Examiner in History of Music*.
- Faculty of Law.**
 RICHARD CLIFTON WELSON, M. A., PH. D. (Yale), D. C. L. (Mc. ARLA Q. C.,
*George Meade Professor of Constitutional and International Law,
 and Lecturer on Crimes and Shipping*.
 BENJAMIN RUSSELL, M. A., D. C. L. (Mc. ARLA), Q. C., M. P., *Professor of
 Contracts, and Lecturer on Bills and Notes, Sales and Equity*.

C. STONEY HARRINGTON, K. C., *Lecturer on Evidence, Partnership, Agency and Companies.*

HECTOR MCENNER, LL. B. (Dall), *Lecturer on Procedure.*

WILLIAM B. WALLACE, LL. B., Judge of the County Court, *Lecturer on Crimes.*

Faculty of Medicine.

GEORGE L. SINCLAIR, M. D. (Col. Phys. & Surg. N. Y.), M. B. (Univ. Hal.), *Examiner in Medicine.*

D. A. CAMPBELL, M. D., C. M., (Dall), *Examiner in Medicine, and Clinical Medicine.*

A. W. H. LINDSAY, B. A., M. D., C. M., (Dall), M. B., C. M., (Edin.), *Examiner in Anatomy.*

JOHN STEWART, M. B., C. M., (Edin.), *Examiner in Surgery.*

HON. D. MCN. PARKER, M. D., (Edin.), L. R. C. S., (Edin.), *Examiner in Medicine.*

ANDREW J. COVIE, M. D., (Univ. Penn.), L. R. C. P., (Lond.) *Examiner in Obstetrics and Diseases of Women and Children.*

JOHN F. BLACK, B. A., (Univ.), M. D., (Col. Phys. & Surg., N. Y.), *Examiner in Clinical Surgery.*

ALEXANDER P. BEID, M. D., C. M., (McGILL), L. R. C. S., (Edin.), L. C. P., and S., (Cal.), *Examiner in Medical Jurisprudence and Hygiene.*

M. A. CURRY, B. A., (Univ.), M. D., (Univ. N. Y.), *Examiner in Obstetrics and Diseases of Women and Children.*

MURRAY McLAREN, B. A., (Univ. N. B.), M. B., C. S., (Eng.), M. D., (Edin.), *Examiner in Physiology and Histology.*

WILLIAM THORN, F. R. C. S., (Ire.), *Examiner in Ophthalmology, Otolaryngology, and Laryngology.*

HON. HUGH McDA. HENRY, Judge Supreme Court, *Examiner in Medical Jurisprudence.*

LOUIS M. SILVER, B. A., (Univ.), M. B., C. M., (Edin.), *Examiner in Physiology and Histology.*

F. W. GOODWIN, M. D., C. M., (Hal. Med. Coll.), *Examiner in Materia Medica and Therapeutics.*

F. U. ANDERSON, L. R. C. P., (Edin.), M. B., C. S., (Eng.), *Examiner in Anatomy.*

EMERSON MURRAY, Ph. D., J. H. U., *Professor of Chemistry.*

W. H. HATTE, M. D., C. M., (McGILL), *Examiner in Pathology and Bacteriology.*

GEORGE M. CAMPBELL, B. A., (Dall), M. D., (Bell Hosp. Med. Coll.), *Examiner in Pathology and Bacteriology.*

NOELMAN E. MCKAY, M. D., C. M., (Hal. Med. Coll.), M. B., (Univ. Hal.), M. B., C. S., (Eng.), *Examiner in Surgery.*

STEPHEN M. DIXON, B. A., (Edin.), *Professor of Physics.*

HECTOR HOWARD MCKAY, M. D., C. M., (McGILL), *Examiner in Materia Medica and Therapeutics.*

MICHAEL CHISHOLM, M. D., C. M., (McGILL), L. R. C. P., (Lond.), *Examiner in Clinical Surgery.*

NOELMAN F. CUNNINGHAM, M. D., (Bell Hosp. Med. Coll.), *Examiner in Clinical Medicine.*

Dean of the College: PROFESSOR HOWARD MURRAY.

Librarian: PROFESSOR DANIEL A. MURRAY.

Curator of the Museum: PROFESSOR J. E. WOODMAN.

Instructor in Gynaecology: MISS, MAJOR LEAG.

Janitor: ALEXANDER CLARKE.

Constitution.

The supreme governing body of the College is the Board of Governors. Appointments to it are made by the Governor-in-Council on the nomination of the Board. The Governors have the management of the funds and property of the College; the power of appointing the President, Professors, and other officials, and of determining their duties and salaries; and the general oversight of the work of the College.

The Senate consists of the President and Professors. To this body are intrusted, by statute, the internal regulations of the College, subject to the approval of the Governors. All degrees are conferred by the Senate.

The four Faculties of Arts, Science, Law, and Medicine, are committees of the Senate to which are intrusted, subject to the approval of the Senate, the supervision of the teaching of the College, the preparation of regulations governing the courses of study, and the recommendation of suitable candidates for prizes, scholarships, diplomas and degrees.

GENERAL REGULATIONS.

§ I—*Admission of Students.*—Persons of either sex of good moral character may become students of the College by entering their names in the Register, annually, and by paying the annual Registration Fee.

Registered students may, on presentation of their Registration Tickets, and on payment of the proper fees, enter any of the classes of the College, with the consent of the Faculty in which they intend to study.

Students who are candidates for degrees are known as Undergraduates. Candidates for the higher degrees in attendance on classes are known as Graduate students. All others are known as General Students.

§ II—*Residence.*—All students are required to report their places of residence to the President on or before the day appointed in the University Almanac, (October 14th.)

All students not residing with relatives or friends are required to reside in approved lodging houses.

Persons who wish to take students as boarders, must furnish the President with satisfactory references. A Register is kept by the President, containing the names of those persons who have met this requirement; and, for the convenience of students, a list of the names and addresses of such persons will be posted on the notice-board in the College hall at the beginning of the session.

Women-students in any Faculty are admitted, on certain conditions, as boarders, to the Halifax Ladies' College.

§ III.—**Church Attendance**—All students not residing with parents or guardians, are required to report to the President on or before the day appointed in the University Almanac (October 14th), the churches they intend to make their places of worship during the Session. Intimation will be made to the various clergymen of the city of the names and addresses of the students who have chosen their respective places of worship.

§ IV.—**Discipline**—The Senate may use all means deemed necessary for maintaining discipline. It is the duty of the Dean of the College to see that order is maintained within the College halls.

§ V.—**Degrees**—The Senate confers the degrees of Bachelor and Master of Arts, Bachelor and Master of Science, Bachelor and Master of Engineering, Bachelor of Music, Bachelor of Laws, and Doctor of Medicine and Master of Surgery. A candidate for any degree must have conformed to the regulations of the Faculty in which he has been studying and must be recommended by that Faculty for the degree.

The degree of Doctor of Laws (L.L.D.), may be conferred as a recognition in recognition of eminent literary, scientific, or professional services.

By special permission of the Senate degrees may be conferred upon candidates *in absentia*.

§ VI.—**Admission ad Eundem Gradum**.—Graduates of Universities approved by the Senate, who have received their degree in course, may be admitted of *eadem gradu* in this University, on producing satisfactory proof of character and academic standing, and on payment of the required fee.

§ VII.—**Academic Costume**.—Undergraduates and general students attending more than one class are entitled to wear caps and gowns, and to wear the gowns at lectures and all meetings of the University. The forms prescribed are the Oxford undergraduate gown of black stuff with sleeves; and the black trencher with tassels.

Graduates of this University shall be entitled to wear gowns of black stuff, and hoods. The distinctive part of the costume is the hood. The following are the kinds of hoods appointed for the various degrees:—

- B. A.—Black stuff lined with white silk and bordered with white fur.
- M. A.—Black stuff lined with crimson silk.
- B. L.—Black stuff lined with white silk and bordered with light blue silk.
- M. L.—Black stuff lined with light blue silk.
- B. Sc.—Black stuff lined with white silk and bordered with scarlet silk.
- M. Sc.—Black stuff lined with scarlet silk.
- B. E.—Black stuff lined with white silk and bordered with dark green silk.
- M. E.—Black stuff lined with dark green silk.
- B. Med.—Black stuff lined with white silk and bordered with lavender silk.
- L. B.—Black stuff lined with white silk and bordered with gold coloured silk.

M. D.—Black stuff lined with scarlet silk and bordered with white silk.

L. D.—Black silk lined with purple silk.

Doctors of Laws shall be entitled to wear gowns of black silk.

Successful candidates for these degrees shall be required to appear at Convocation in the proper academic costume, to have the degree conferred upon them.

§ VIII.—**Libraries**.—The Senate intrusts the management of the College Library to one of their number, who is called the Librarian and with whom is associated an Advisory Committee of two.

Registered students are entitled to the use of the College Library. A deposit of two dollars is required of students who wish to borrow books from the Library for use during the vacation.

The Law Library is intended for the exclusive use of the members and students of the Faculty of Law.

§ IX.—**Museum**.—The Senate intrusts the custody of the collections in the Museum to one of their number, who is called the Curator. Students in science, when under the supervision of an instructor, are entitled to the use of the Museum.

§ X.—**Gymnasium**.—A Committee of six, three of whom are appointed by the Senate and three by the Dalhousie Amateur Athletic Club, have charge of the Gymnasium. All registered male students who have paid the gymnasium fee are entitled to the use of the gymnasium and to the services of the Instructor in Gymnastics.

Faculty of Arts.

THE PRESIDENT.

JOHN JOHNSON, M. A., LL. D.
 JAMES LORCHIE, M. A.
 ARCHIBALD MACMURCHAN, PH. D.
 WALTER C. MURRAY, M. A.
 HOWARD MURRAY, B. A.
 EKENHEAD MACKAY, PH. D.
 DANIEL A. MURRAY, PH. D.
 STEPHEN M. DEXON, M. A.
 J. EDMUND WOODMAN, S. D.
 JOTHAM W. LOGAN, B. A.
 ROBERT A. FALCONER, D. LITT.

Secretary to the Faculty.—PROFESSOR MACMURCHAN.
 Registrar to the Faculty.—PROFESSOR LORCHIE.

Correspondence should be addressed:

—The Secretary, Faculty of Arts,
 Dalhousie College, Halifax, N. S.

§ XI.—Courses of Instruction.

I—CLASSICS.

(McLeod Professorship.)

Professor.....HOWARD MURRAY, B. A.

First Latin Class.

Mondays, Wednesdays and Fridays, 10—11 A. M.

Classics, Questions against Outline; Vergil, Æneid, Book VI.; Cicero, Pro lege Manilia; Vergil, Æneid, Book IV. Latin Prose Composition. Exercises in Sight Translation. Roman History to the Battle of Actium.

Books recommended: Cicero, Questions against Outline (Wilkins's, Macmillan, N. Y., 50 cents); Cicero, Pro lege Manilia (Wilkins's, Macmillan, N. Y., 50 cents); Cicero, Selected Orations and Letters (Kelley's, Allyn & Bacon, Boston, \$1.25). This book includes all the speeches to be read by the class, and has the advantage of having the vowel-quantities indicated; Vergil, Æneid, Book VI. (Page's, Macmillan, N. Y., 40 cents); Vergil, Æneid, Book IV. (Stephenson's, Macmillan, N. Y., 40 cents); Bradley's Æneid's Latin Prose Composition (Smith's Smaller History of Greece, (Harpur's, N. Y.) Bennett's Latin Grammar, (Allyn & Bacon, Boston, 50 cents), or Allen & Greenough's, (Holt & Co., Boston, \$1.25).

*For private reading by students seeking First or Second Class Distinction. Passages for translation at sight will be set in all examinations.

Second Latin Class.

Mondays, Wednesdays and Fridays, 11 A. M.—12 M.

*Livy, Book I; Horace, Odes, Books I and II; *Horace, Odes, Books III and IV. Latin Prose Composition. Exercises in Sight Translation. Grecian History to the death of Alexander.*

Books recommended: Livy, Book I. (Boyle's text with indicated quantities) Allyn & Bacon, Boston, 25 cents; Horace Odes, (Page's in Macmillan's Classical Series, each book 10 cents, or Books I-IV, in one volume, \$1.25; Bradley's Æneid's Latin Prose Composition; Smith's Smaller History of Greece, (Harpur's, N. Y.)

Third Latin Class.

Mondays and Wednesdays, 12 M.—1 P. M.

*Plinius, Prætorianus; Juvenal, Selected Satires; Tacitus, Germania; *Vergil, Æneid, Books X—XII. Latin Prose Composition, Exercises in Sight Translation.*

Books recommended: Plinius, Prætorianus, (Freeman & Stoddard's, Macmillan, 75 cents); Juvenal, (Harpur's, Macmillan, \$1.25); Tacitus, Germania, (Harpur & Reddick's, Macmillan, 50 cents); Vergil, Æneid, Books X—XII. (Page's & Haigh's, Macmillan, 75 cents).

First Greek Class.

Tuesdays and Thursdays, 10—11 A. M.

*Xenophon, Hæstias, Books I and II; *Xenophon, Cyropædia, Book I. Greek Prose Composition. Exercises in Sight Translation.*

Books recommended: Xenophon, Hæstias, Books I and II, (Underhill's, Macmillan, 75 cents); Xenophon, Cyropædia, Book I, (Harpur's, Macmillan, 50 cents); Fletcher & Nicholson's Greek Prose Composition; Goodwin's Greek Grammar, (Osgood & Co., Boston, \$1.50).

Second Greek Class.

Tuesdays and Thursdays, 11 A. M.—12 M.

*Lucian, Selected Dialogues: Homer, Odyssey, Book IX; *Lucian, The Sacred Oives, Against Eurythosus, For the Cripple. Greek Prose Composition. Exercises in Sight Translation.*

Books recommended: Lucian, Selected Dialogues (Page & Macmillan's, Longman's, 36 G. F. House, Oldroyd, Book IX, (Edmond's, Macmillan, 40 cents); Lucian, Sacred Oives, (Boydell's, Allyn & Bacon, Boston, \$1.00); Fletcher & Nicholson's Greek Prose Composition.

Third Greek Class.

Tuesdays and Thursdays, 12 M.—1 P. M.

*Plato, Apology and Crito; Aristophanes, The Clouds; *Herodotus, Book VI. Greek Prose Composition. Exercises in Sight Translation.*

Books recommended: Plato, Apology and Crito, Wagner's, Geo. Bell & Son, London, 2s. 6d.; Aristophanes, The Clouds, (Harpur's, Macmillan, 75 cents); Herodotus, Book VI, (Harpur's, Macmillan, \$1.00).

*For private reading by students seeking First or second Class Distinction.

Passages for translation at sight will be set in all examinations.

Advanced Class.

Professor.....HOWARD MURRAY, B.A.
Lecturer.....J. W. LORIAN, B. A.

Three or four times a week.

In this class a portion of the Latin and Greek subjects prescribed for the special Course in Classics is read, and Prose composition is regularly practised.

II.—NEW TESTAMENT GREEK.

The class had examinations in New Testament Greek, conducted by Professor R. A. FALCONER, M. A., B. D., in the Presbyterian Theological College, Halifax, are recognized as qualifying for a degree. Similar classes in other Theological Colleges approved by the Faculty, are also recognized for the same purpose.

First Year Class.

Daily 12.30 P. M.

The work of this class consists of the interpretation of the Gospels, especially those of St. Matthew and St. John. Lectures are also given on the language of the New Testament, the principles of Textual Criticism, Introduction to the Gospels, the Jewish world at the time of Christ and the geography of Palestine.

Text-books: Stevens and Burton: *Grammar of the Gospels, or Greek Syntax for direct Greek Knowledge*. Harmond; *Textual Criticism of the New Testament*. Mathews: *A History of New Testament Times in Palestine*. Strass: *Language of the New Testament*.

Books recommended: F. Woss: *Grammar of N. T. Greek*. Burton: *New Testament, Maps and Texts*. Neale: *Textual Criticism of the Greek N. T. Expositor's Greek Testament*. Vol. I. Swete: *Gospel of St. Mark*. Plummer: *Gospel of St. Luke*. Westcott: *Gospel of St. John*. Plummer: *Gospel of St. John*.

III.—HEBREW.

The class and examinations in Hebrew, conducted by Professor JOHN CURRIE, D. D., in the Halifax Theological College, are recognized as qualifying for a degree. Similar classes in other Theological Colleges approved by the Faculty, are also recognized for the same purpose.

Junior Class.

Daily 8.45—9.45 A. M.

Text-book: Davidson's *Introductory Hebrew Grammar*, with Progressive Exercises in Reading and Writing, T. & T. Clark, Edinburgh, 7s. 6d.

The aim of the course is, by a thorough drill in paradigms, exercises in reading and writing, to impart a fair knowledge of inflections and syntax, and the ability to read at sight easy parts of the Hebrew Scriptures.

Books recommended: Gesenius' *Hebrew Grammar*, revised edition. (Millard), Bradley & Wadcraft, Boston, \$3. Green's *Hebrew Grammar*, new edition, unaltered (Wiley and Sons, New York, \$2. Harper's *Introductory Hebrew Method and Manual*, latest edition. (American Publication Society of Hebrew, Chicago's. Robinson's *Gesenius's Hebrew Lessons*, (Houghton, Mifflin & Co., Boston, 90c.

IV.—MODERN LANGUAGES.

(McLeod Professorship).

Professor.....JAMES LAUREN, M. A.

First French Class.

Tuesdays and Thursdays, 3—4 P. M.

Macmillan's *Progressive French Reader*, II year. (Fasnacht) Molière: *Le Bourgeois Gentilhomme*, (Macmillan & Co.), Eugène Scribe: *Valérie* (Macmillan & Co.), Exercises in Grammar and Composition, (Fasnacht's First Course by Macmillan & Co.).

Additional for a First Class position: *Saintine, Piccini*, First ten chapters; or Octave Feuillet; *Le Bonnet d'âne* Jeanne Louise Ponsard, first fifteen chapters.

Text-books: Brachet's *Public School Elementary French Grammar*. Other text-books required will be announced at the opening of the Session.

Second French Class.

Tuesdays and Thursdays, 2—3 P. M.

For 1903-04. Racine: *André*. Molière: *Les Précieuses Ridicules* (Macmillan & Co.). Labiche et Martin: *Le Piqueur de Monsieur Perrichon* (American Book Co.). Sight-reading; a comedy by Scribe. Translation from English writers. Exercises in Syntax. Translation of unspecified passages from modern authors. French composition.

For 1904-05. Racine: *Esther*. Molière: *L'Amour*. Sight-reading; a comedy by Scribe. (Macmillan & Co.). Translation from English writers. Exercises in Syntax. Translation of unspecified passages from modern authors. French composition.

Molière: *Le Misanthrope*, (Macmillan & Co.), and either Madame de Staël: *L'Allemagne*, first twenty chapters, or Pierre Corneille: *L'Ami de Berthouze*, (Macmillan & Co.) are prescribed for private reading to candidates for a First-Class position.

Text-books: As in First Class. Outlines of the History of French Literature (Chaix-Bey's Primer).

Third and Fourth French Classes.

Tuesdays and Thursdays, 9—10 A. M.

For 1903-04. Corneille: *Horace*. Racine: *Phèdre*. Sight-reading; a comedy by Scribe. Translations from English writers. French composition, 2nd course, by Eugène Fasnacht (Macmillan & Co.). Translation of unspecified passages from modern authors.

For 1904-05. Molière: *Les Femmes Savantes*. Racine: *Iphigénie*. Corneille: *Le Cid*, (Macmillan & Co.). Sight-reading; a comedy by Scribe, or *Les Précieuses en voyage*, by Jette T. Wolf (Edward Arnold, London). Translation from English writers. French Composition, 2nd course, by Eugène Fasnacht (Macmillan & Co.). Translation of unspecified passages from modern authors.

Text-books: As in Second Class. Mazon: *Littérature française*.

THIRD FRENCH: Molière: *Tartuffe*, Acts I and II, Macmillan & Co., and other Victor Hugo: *Les Travailleurs de la Mer*, Chapters I

to *V (10-1) (Livington's), or Madame de Staël: *Course on France*, livres I to V (incl) are prescribed for private reading to candidates for a First Class position. FÜRTH FAXEN: Molière: *L'École des Maris* and *L'École des Femmes*, (I and II Acts of each).

First German Class.

Mondays, Wednesdays and Fridays, 3—4 P. M.

*Bachheim: *German Reader*, Part II. Schiller: *Wallenst. Tod*, (Macmillan & Co.), Grotler: *Jacquin*, (American Book Co.) Additional for a First Class position: Gustav Klaus: *Heer Wälder von der Fogselside*, (Macmillan & Co.), or Helene Stöckl: *Unter dem Christbaum*, (D. C. Heath & Co.). Exercises in Grammar and Composition. Elementary German Prose Composition, by E. S. Bachheim, (Clarendon Press)

Text-books: Jacques-Melior's German Grammar, (D. C. Heath & Co.) Other text-books required will be announced at the opening of the Session.

Second German Class.

Mondays, Wednesdays and Fridays, 2—3 P. M.

For 1903-04. Goethe: *Hermann and Dorothea*, (Clarendon Press). Lessing: *Missa von Barabas*, (Macmillan & Co.). Night-reading from Helene Stöckl's: *Unter dem Christbaum*, (D. C. Heath & Co.), or Grotler's *Jacquin*. Translations from English writers. Original compositions. Translations of unspecified passages from modern authors.

For 1904-05. Goethe: *Egmont*. Schiller: *Marie Stuart*, (Macmillan & Co.). Night-reading from Helene Stöckl's: *Unter dem Christbaum*, (D. C. Heath & Co.), or Grotler's *Jacquin*. Translation from English writers. Original compositions. Translations of unspecified passages from modern authors. Bernhard's course in German composition (Gins & Co.).

Text-books: As in First Class. Critical outline of the Literature of Germany by Alb. Sells, Ph. D. (Longmans, Green & Co.)

Schiller: *Die Jungfrau von Orléans*, *Prolog* and Act I., and either Heine: *Die Harzreise* (Macmillan & Co.), or *Fredrich und Leiswick* (Ed. Dr. W. Bernhard) (American Book Co.), are prescribed for private reading to candidates for a First Class position.

Third German Class.

Mondays, Wednesdays and Fridays, 9—10 A. M.

For 1903-04. Lessing: *Missa von Barabas* (Macmillan & Co.). Gustav Freytag: *Die Jesuiten* (Macmillan & Co.). Goethe: *Epheuse auf Tauris*. Prose composition. Translation of unspecified passages from modern authors. Night-reading from Prehn's *Jesuitische German*. (American Book Co.)

1904-05. Lessing: *Nathan der Weise* (Macmillan & Co.). Goethe: *Gitz von Berlichingen* (Macmillan & Co.). Prose composition. Translation of unspecified passages from modern authors. Night-reading from Prehn's *Jesuitische German*. (American Book Co.)

Schiller: *Wallenst. Tod*, Act I, 5th Scene; Act II, 2nd and 3rd Scenes; Act III, 18th Scene; (George Bell & Sons) and either Goethe:

Faust, Prolog in Hainau, and first three scenes of Part I, (by Jane Lee (Macmillan & Co.), or Heine: *Harzreise* (Macmillan & Co.) are prescribed for private reading to candidates for a First Class position.

Text-books: As in Second Class. Bernhard's *Handb. d. Geschichte der deutschen Litteratur* (American Book Co.)

Fourth German Class.

Twice a Week.

Schiller: *Lyrische Gedichte*, Goethe: *Faust*, Part I, by Jane Lee; (Macmillan & Co.) Prose composition. Translation of unspecified passages from modern authors. Sells's German Literature.

Private reading for a First Class position: Schiller: *Wallenstein Lager*, and Lessing: *Sara Saapana*, or Schiller: *Geistesherd*.

Advanced German Class.

Twice a week.

The subjects studied in this class will be those prescribed for the special course of English and German (§ VIII (8)). The course will extend over two years.

1903-04. Middle High German: Grammar (Wright's Middle High German Primer). Selections from Wackernagel; Kleineres Altddeutsches Lesebuch. Selections from authors of the 18th century. Prose Composition.

1904-05. Middle High German: Grammar (Paul's Grammar). Selections from Wackernagel; Kleineres Altddeutsches Lesebuch. Selections from Sachs and Plattdeutsch dialect literature. Selections from authors of 16th and 17th centuries. Prose composition.

Other text-books will be announced at the opening of the Session.

V.—ENGLISH LANGUAGE AND LITERATURE

(George Munro Professorship.)

Professor..... ARCHIBALD MACMURDO, PH. D.

The course in English is mainly literary; the method pursued is historical. The different periods are studied in the representative weeks of the period; and in all cases actual acquaintance with the texts precedes criticism upon them. This part of the course is intended to furnish the student with an outline picture of English literature from Chaucer to Tennyson. The work for "class distinction" is meant to broaden the knowledge of more ambitious students. The essential facts of Historical English Grammar are taught by means of lectures in the Second Year. Special stress is laid upon composition. Practice is set before theory; the various exercises are corrected and preserved; the writing of "reports" forms part of this work. The prompt and satisfactory performance of the written work is a condition of examination. In the Advanced Classes, the aim of the instruction is to acquaint the student with the grammar of Old and Middle English, and to widen his knowledge of Elizabethan literature.

First (A) Class.

Tuesdays and Thursdays, 12—1 P. M.

COMPOSITION.—Christmas Term; imitative exercises in the construction of narrative and descriptive paragraphs. Spring Term: ten narrative and descriptive themes based on personal experience, and work read in class.

LITERATURE.—Eighteenth Century. Prose. Addison: *Papers Contributed to "The Spectator"*; Johnson: *Life of Pope*. (Manuscript: Samuel Johnson.) Poetry. Dryden: *MacFlecknoe*, *St. Cecilia's Day*, *Alexander's Feast*. Pope: *Rape of the Lock*. Gray: *Elegy in a Country Church-yard*, *Giddenshild*; *Traveler*, *Deserted Village*. Burns: *Two Days*, *Cotter's Saturday Night*.

For reference: Cass: *History of Eighteenth Century Literature*.

Candidates for Class Distinction will be examined in those additional works which are not read in class. Dryden: *Absolon and Achitophel*. Pope: *Essay on Man*. Johnson: *Lives*, of Dryden, Addison and Gray.

Two reports on private reading, assigned by the instructor, are required from each student.

Books recommended: Hale: *Leading English Poets* (containing all the poetry read in class); Ad. Lion, ed. V. Arnold; Clarendon Press Series; Johnson: *Six Chief Lives*; ed. M. Arnold.

PARALLEL READING.—As a preparation for this course, the student is recommended to read the following works:—Thackeray: *English Humourists*, *Copgrove* and *Adrian*. The *History of Henry Esmond*, (bk. II, cap. XI, at least). Macaulay: *The Comic Dramatists of the Restoration*. Addison.

Second (B) Class.

Mondays, Wednesdays, and Fridays, 12—1 P. M.

COMPOSITION.—Lectures on the Principles of Narration, Description, and Exposition. Twenty Expository themes, based chiefly upon the work read in class.

LITERATURE.—Elizabethan Shakerspeare: *Richard II*, *The Tragedy of Hamlet*. Milton: *Comus*, *L'Allegro*, *B. Pastorello*, *Lucifer*, *Satan*, *Paradise Lost*, Bks. I, II. Lectures.

ENGLISH LANGUAGE.—A short course of Lectures on the History of the English Language, at the end of the Spring Term.

For reference: Sidney Lee: *A Life of William Shakespeare*; Douglas: *Shakespeare Primer*; Saintsbury: *History of Elizabethan Literature*.

A report on private reading assigned by the instructor, is required from each student. Candidates for Distinction are required to present a second report.

Candidates for Class Distinction will be examined in the following plays, which are not read in class:—*King John*, *A Fair Use of B.*, *Macbeth*.

PARALLEL READING.—As a preparation for this course, the student is recommended to read the following works: Kingsley: *Waterward Ho!*; Scott: *Kennelworth*; Hentzner: *Travels in England*; Harrison: *Description of England*. (Scott Library, W. Scott). Macaulay: *Milton*.

Third (C) Class.

(Not given in 1902-03.)

Tuesdays and Thursdays, 10—11 A. M.

LITERATURE.—Middle English and Pre-Shakespearian. Chaucer: *Prologue*, *Knight's Tale*, *Non's Priest's Tale*, *Serret's Middle English Primer II*, *Spenser*; *Perce Queene*, bks. I, II. Marklow: *Dr. Faustus*. Lectures.

History of Literature: Pollard; *Chaucer Primer*. For reference, Lonsbury, Tom Brink. Morley: *English Writers*, F.

For Distinction, Chaucer: *The Priores's Tale*, *Sir Topas*, *The Monk's Tale*, *The Squire's Tale*.

Fourth (D) Class.

Tuesdays and Thursdays, 4—5 P. M.

LITERATURE.—Nineteenth Century. Scott: *Old Mortality*, *Miranda*. Byron: *Poems*, selected and edited by Matthew Arnold. Wordsworth: ed. Bradley (*Athenaeum Press Series*). Tennyson: *The Lady of Shalott*, *Queen*, *Lotus Eaters*, *A Dream of Fair Weather*, *Morte d'Arthur*, *Dora*, *St. Gildard*, *The Lord of Burleigh*, *Ulysses*, *Browning*; *Andrea del Sarto*, *Epistle of Karshild*, *Mansueto*, *Edna Hope*, *A Truena of Galopps*, *The Statute and the Boat*, *In a Bateau*, *The Last Bible Together*. Ruskin: *Sesame and Lilies*; ed. Bos. (Henry Holt & Co.). Carlyle: *Sartor Resartus*; ed. MacMechan. (*Athenaeum Press Series*).

History of Literature. Saintsbury: *History of Nineteenth Century Literature*. Herford: *Age of Wordsworth*. Oliphant: *Literary History of England*.

For Distinction. A thesis on a subject assigned by the instructor.

This subject may be assigned at the end of the previous session and completed during the summer vacation. It should in any case be selected at the beginning of the session in which the student intends to present it, and must embody the results of an original literary investigation. The following are the titles of representative theses which have been accepted: *Chatterton, A Study in Style*; *The Relation of "Tristram Shandy" to "Lectures of Melancthon"*; *Tennyson's Treatment of Coleridge in "The Idylls of the King"*; *"Atheist," edited with Introduction and Notes*. The Thesis must be written on special thesis paper and bound. A copy must be deposited in the College Library.

Fifth (E) Class. (Advanced.)

Mondays and Fridays, 9—10 A. M.

OLD ENGLISH.—Bright: *Anglo-Saxon Reader*. Sievers. O. E. Grammar, trans. Cook. Sight translation from easy texts.

Sixth (F) Class. (Advanced.)

(Not given in 1903-04.)

ELIZABETHAN DRAMA.—Marklow: *Timon*, *Edward II*, *The Jew of Malta*. Green: *Fair Bacon and Fair Bessy*. Johnson:

The Acheian, Every Man in His Humour. Beaumont and Fletcher : *Philaster, The Knight of the Burning Pestle.* Massinger: *A New Way to Pay Old Debts.* Webster: *The Doctor's Dilemma.* Shal's, see: the tragedies, *Two Noble Kinsmen.*

This course is conducted as a Seminary.

Books recommended: History of Literature; Ten Brink, *Salmagundy*; Brooks. Texts: Clarendon Press. "Mirrour," "Temple Dramaticus," Thayer: "Best Elizabethan Plays."

VI.—BIBLICAL LITERATURE.

Lecturer..... PROF. R. A. FALCONER, D. LITT.

Tuesdays, 3— $\frac{1}{2}$ P. M., and Fridays, 4—5 P. M.

This course extends over two sessions, and covers the whole Bible. Professor will give one lecture a week on the Old Testament, Professor Falconer one lecture a week on the New Testament. Although students are advised to take the entire course, the work of any one session will be accepted as an elective in the Third or Fourth Year. During session 1893-04, the *First Part* of the course will be the subject of study.

OLD TESTAMENT.

First Part. Introduction. The Record of Revelation. Outline of structure. What did Moses write? The Pentateuch; its sources and contents. The Law. The Religious Institutions of Israel. The earlier Histories. The Monarchy. The earlier Prophets, including Amos, Hosea, Isaiah and Micah. The Captivity of the Northern Kingdom.

Second Part. Reconciliation. The later Histories. The Prophets subsequent to 700 B. C. The Exile and Restoration. The Postical Books and other writings. The Messianic Elements in the Old Testament. The Canon. The Religious Value and Authority of the Old Testament.

NEW TESTAMENT.

First Part. Literary characteristics of the Gospels. Synoptic Problem. Johannine question. Readings from the four Gospels outlining the Life of Jesus Christ. A comparison, both as to form and import, of the discourses and parables of the Synoptics with the teaching of the Gospel according to John.

Second Part. The Literature of the Apostolic Age, exclusive of the Gospels. Books to represent the historical movements especial as set forth in Acts, and the different types of thought of the Apostolic Age will be studied in brief outline, e. g., The Epistles to the Galatians, Ephesians and Hebrews; those of James, Peter and John, together with selections from the Revelation in illustration of prophetic literature.

Text-books for N. Y.: Stevens and Burton's *Harmony of the Gospels.* (Mathew's *History of N. Y. Times in Palestine.*) Burton and Mathew's *Constructive Studies in the Life of Christ.* McClintock's *New Testament and its Workers.*

For Class Distinction a knowledge of the following books will be required.—Sunday: *Bampton Lectures.* W. Robertson Smith; *Prophecy of Israel.* Ramsay; *St. Paul the Traveler and Roman Citizen.*

Recommended for reading: Kent; *History of the Hebrew People.* W. Robertson Smith; *Old Testament in the Jewish Church.* Robertson; *Early Religion of Israel.* Hastings; *Literary Study of the Bible.* Leiser; *Introduction to the Literature of the O. T.* The *Messengers of the Bible*; edited by Hastings & Kent; Harbutt; *Apostolic Age.* Articles in Hastings Dictionary of the Bible.—*Jesus Christ.* by Sunday; *Gospels.* by Stanton; *New Testament Canon.* by Stanton; also the separate articles on each of the books of the N. T.

VII.—HISTORY AND POLITICAL ECONOMY.

(George Munro Professorship).

Professor..... REV. PRESIDENT FOREST.

Junior History Class.

Monday, Wednesday and Friday, 11 A. M.—12 M.

Medieval History and Modern History to 1555.

The class work will be conducted by means of lectures and examinations on prescribed reading. A detailed syllabus with references and passages prescribed for reading will be given to students on the opening of the class.

Candidates for First Class Distinction will be examined on Hallam's Middle Ages, Bryce's Holy Roman Empire, and introductory sections of Robertson's Charles V.

Books recommended: Gibbon; *Decline and Fall of the Roman Empire*; Hallam; *Middle Ages*; Bryce; *Holy Roman Empire*; Irving; *Mohamet and His Successors*; Leites; *History of Civilization*; Michaud; *History of the Crusades*; Robertson; *Charles V.* Stubbs; *Constitutional History of England*; Labberton; *Historical Atlas.*

Senior History Class.

Tuesday and Thursday, 11 A. M.—12 M.

Modern History from 1555.

The class work will be conducted by means of lectures and examinations on prescribed reading. In the lectures, books of reference will be named and select portions specified for reading.

Disputed points will be marked out for special study and students required to examine authorities and weigh conflicting opinions, and thus learn to study history critically for themselves.

Candidates for First Class Distinction will be examined on Green and Galant, and a few chapters to be specified in other works.

Books recommended: Green; *England.* Vol. IV.; Guizot; *France (Massa's Abolitionists)*; Meynel; *Germany*; Malley; *Dutch Republic*; Bancroft; *United States*; McMaster; *History of the People of the United States*; Parkman; *France and England in North America*; Labberton; *Historical Atlas.*

Advanced History Class.*Once a Week.*

English History from 1066 to 1688.

The work of the class will be conducted by means of lectures and examinations on reading prescribed from Clarendon, Gardiner, Green, Hallen, Ranke, Lingard and other authorities.

This class is intended especially for undergraduates taking the Special course in English and English History.

Political Economy Class.*Tuesdays and Thursdays, 10—11 A. M.*

The work of this class will be conducted by means of lectures and examinations on prescribed reading.

The lectures will generally follow the order of arrangement of Mill's Principles of Political Economy, 1.—THE NATURE OF WEALTH. Analysis of fundamental conceptions of Wealth, 2.—PRODUCTION OF WEALTH: Labor, Capital, Population, and their relations to each other, 3.—DISTRIBUTION OF WEALTH: Wages, Profits, Rent, Socialism, Labor Unions, Land Tenure, 4.—EXCHANGE: Value, Money, Banking, 5.—RELATIONS OF GOVERNMENT TO TRADE AND INDUSTRY: Tariffs, Taxation.

Particular attention will be given to the problems of the day. Protection and Free Trade, Trade Unions, Combines, Bimetals. Each student is required to read the whole of Mill's Principles, together with prescribed passages from leading economists and current literature on the subjects. Weekly examinations will be held on the prescribed reading.

Candidates for First Class Distinction will be examined on additional work, which will be announced at the beginning of the Session.

Text-book: Mill: Principles of Political Economy.

Advanced Political Economy Class.*Twice a Week.*

The work of this class will consist of lectures, entering into the Principles of Political Economy, more fully than in the ordinary class, with examinations on reading prescribed in the works of leading writers on the subject.

VIII. CONSTITUTIONAL LAW AND CONSTITUTIONAL HISTORY.

The classes in Constitutional Law and Constitutional History, conducted by Professor Welton in the Faculty of Law, and the examinations conducted in these subjects by the Faculty of Law, are recognized as qualifying for a degree.

IX.—CONTRACTS.

The class in Contracts, conducted by Professor Russell in the Faculty of Law, and the examinations conducted in this subject by the Faculty of Law, are recognized as qualifying for a degree.

X—PHILOSOPHY.*(George Munro Professorship.)*

Professor.....WALTER C. MURRAY, M. A.

Junior Philosophy.*Tuesdays and Thursdays, 12—1 P. M., Fridays, 4—5 P. M.*

The work of this class will consist of two courses of lectures, one on Logic, and one on Psychology, with essays, discussions, and oral examinations.

The work in the course on Logic will be selected so as to afford the best possible mental training. In the Psychological course, experiments will be introduced as much as possible to supply a basis for the theory and for the purpose of illustration. Especial attention will also be given to the connection between Psychology and Educational methods.

Text-books: Creighton: *Introductory Logic*; Titchener: *Primer of Psychology*.

Books recommended: Mill: *Logic*; Titchener: *Qualities of Psychology*; James: *Psychology*; Headley for Distinction—Berkeley: *Human Physical Language*; Principles of Human Knowledge, Open Court Edition; Rosquist: *Essentials of Logic*.

Senior Philosophy.*Mondays and Wednesdays, 10—11 A. M.*

For 1904-5. This course of lectures is intended to serve as an introduction to Metaphysics.

Books recommended: Tyndall: *Fragments*, Vol. I; Huxley: *Empage*; Huxley: *Miscellaneous, Middle of the Nineteen*; James: *Psychology*, Vol. I; Clifford: *Essays*; Spencer: *First Principles*; Darwin: *Celestial Species*; H. L. Holt: *Popular Lectures*; See I; Hartman: *Empage*, Vol. II, V; Watson: *Outline of Philosophy*; Bradley: *Appearance and Reality*; Myers: *The World and the Individual*; Paulsen: *Introduction to Philosophy*; Balfour: *Foundations of Belief*; Ward: *Naturalism and Agnosticism*; Mackenzie: *Metaphysics*.

Modern Philosophy.*Mondays and Wednesdays, 10—11 A. M.*

For 1904-5. After a preliminary sketch of the principal problems of Metaphysics, the development of Modern Philosophy from Locke will be studied in Locke's *Essay*, Berkeley's *Principles of Knowledge*, and *Siris*, Hume's *Enquiry*, Reid's *Inquiry*, Kant's *Prolegomena*, and Watson's Extracts from Mill's Writings.

Books: Seth (As Scottish Philosophy); Locke: *Essay*; Berkeley: *Sermons*; Fraser: *Hume*; Trowie and Enquiry; Reid: *Works* ed. by Hamilton; and *Inquiry* Stewart's Edition; Kant: *Prolegomena*, translated by Mahaffy & Bernard; Wundt: *Outline of Kant's Critique*; Mill: *Selections* (Watson); Douglas: *John Stuart Mill*; Blackwood's Philosophical Classics; Holtzner, or Falkenberg's; or Weber's *History of Philosophy*; Open Court Edition of Berkeley, Hume and Kant.

Greek Philosophy.*Mondays and Fridays, 3—4 P. M.*

For 1904-5. In this course an introductory sketch of the development of Greek Philosophy from Thales is followed by a critical study

of Plato's *Apology*, *Cratylus*, *Phaedrus*, *Republic*, and *Theaetetus*; and Aristotle's *Ethics* (*Nicholson's Edition*.)

Books recommended: *Vertter: Lectures on Early Greek Philosophy*; *Church's Translation of Apology, Cratylus and Phaedrus* (Golden Treasury Series); *Davies and Vaughan's Translation of Republic*, § 2, T. 8, 3; *Dyde's Translation of Theaetetus*; *Aristotle's Ethics* (The Scott Library, or Peters's Translation); *Zeller: Greek Philosophy*; *Barnes: Early Greek Philosophy*; *Boasquet: Comparison to Plato's Republic*; *Nuttall's Ship: Philosophical Lectures and Exercises*; *Kearl in Heliconia*; *Maitland: Chapters from Aristotle's Ethics*; *Jowett's Translation of Plato's Dialogues*; *Palmer: Plato and Platonism*; *Walker: Epistemologues*; *Hegel: History of Philosophy*.

Moral Philosophy.

Mondays and Fridays, 3-4 P. M.

For 1903-4. This course of lectures attempts a systematic presentation of the Principles of Moral Philosophy.

Books recommended: *Both: Ethical Principles*; *Maitland: Elements of Ethics*; *Green: Prolegomena to Ethics*; *Deasy: Outline of Ethics*; *Study of Ethics*; *Macneil's Manual of Ethics*; *Green: Lectures on Moral Philosophy* (edited by Bosanquet); *Mill: Utilitarianism*; *Spencer: Data of Ethics*; *Paulsen: Ethics*; *Watten: Helonistic Theories*; *Wundt: Ethics*; *Helm: Ethics*.

Advanced Philosophy.

Tuesdays and Thursdays, 3-4 P. M.

1903-4. The subject of this course is Kant's Philosophy. The *Prolegomena*, *Critique of Pure Reason*, of *Practical Reason*, and of *Judgment*, will be studied.

Translations recommended: *Watson's Selections*; *Mahaffy and Bernard: Prolegomena*; *Max Müller: Critique of Pure Reason*; *Abbott: Theory of Ethics*; *Bernard: Critique of Judgment*; *Kant: Prolegomena* (Open Court Edition).

Commentaries and Expositions recommended: *Stirling: Text Book to Kant*; *Wallace: Kant's Ethics*; *Kant: Critical Philosophy*; *Watson: Kant and his English Critics*; and *Oswe Mull and Spencer or An Outline of Philosophy*; *Adams: Philosophy of Kant*; *Mahaffy and Bernard: Kritik of Pure Reason Defended and Explained*; *Green: Philosophical Works, Vol. II*; *Paulsen: Kant*.

XI—EDUCATION.

Lecturer..... PROFESSOR WALTER C. MURRAY.

Two hours a week.

The work of this class consists of two concurrent courses of lectures. In one course, an attempt will be made to trace the mental development of the child to the close of the period of youth. This course will also include lectures on the application of psychology to educational problems. The other course of lectures will trace the development of educational theory since the Renaissance, more particularly in England, and will include a critical study of Anshau's *Schleiermacher*, *Milton's Tractate*, *Locke's Thoughts*, *Spencer's Education* and *Therings' Theory and Practice of Teaching*. [The course on Greek Philosophy gives considerable attention to Plato's Theory of Education.]

Books recommended: *James: Talks on Psychology*; *Chamberlain: The Child*; *Harris: Psychological Foundations of Education*; *Peters: Progress of Science*; *Moser's, Sully's, Tracy's, Drummond's, and Forster's* books on Child Psychology; *Quirk: Educational Reformers*; *Browning: Educational Theories*; *Fitch: Lectures on Teaching*.

XII—MATHEMATICS.

Professor..... DANIEL A. MURRAY, PH. D.

The *First Mathematics Class* is prescribed for regular first year students in Arts and Science. The *Second Mathematics Class* is elective for students who have taken the First Mathematics Class. Each of the *Advanced Mathematics Classes* is elective for any student who has passed in the work of the Second Mathematics Class.

First Mathematics Class.

Daily, 11 A. M.—12 M.

The work of this class includes:

ALGEBRA.—Indices, Theory of Quadratic Equations, Irrational quantities, Quantities involving $\sqrt{-1}$, Projection, Variation, Progressions, Notation, Permutations and Combinations, Binomial Theorem, revised, Inequalities, Indeterminate equations. Properties of Logarithms, Interest and Annuities, Horner's method of approximating to the roots of an equation. Elementary discussions on functions, limits and series. Selected propositions in the theory of equations. Graphical representation of functions, and plotting of loci of equations. Elements of Determinants, with applications to elimination and the solution of simultaneous equations.

Indeterminate coefficients. Partial Fractions. Simple exercises in Probability, if there be time for these topics.

GEOMETRY.—Euclid, Book VI revised, and Book XI. Theorems and problems, with drawing exercises, on Harmonic Ratios and Pencils, Poles and Polars, and Transversals. Geometry of the Sphere. Elementary propositions in the geometrical treatment of the parabola and the ellipse.

TRIGONOMETRY.—The solution of plane triangles. Measurement of heights and distances. Elementary angular analysis.

Books recommended: *Hall & Knight's Higher Algebra* (Macmillan & Co.) *Hall & Stevens's edition of Euclid* (Macmillan & Co.). *Roberts's Geometry* (Macmillan & Co.) *Cockburn and Walker's Geometrical Treatise* (Macmillan & Co.) *Murray's Plane Trigonometry* and *Tables* (Macmillan, Green & Co.).

Second Mathematics Class.

Daily, 10—11 A. M.

An elementary course in ANALYTIC GEOMETRY and DIFFERENTIAL AND INTEGRAL CALCULUS.

This course is intended for those who wish to become familiar with the fundamental principles of analytical geometry and the infinitesimal calculus, and to acquire the ability to apply these principles easily and accurately in the solution of simple practical problems. The course provides mathematical preparation sufficient for beginning the study of engineering, physics, and other mathematical sciences. It is recommended as the minimum mathematical equipment for those intending to teach mathematics in the high schools.

SPHERICAL TRIGONOMETRY is prescribed for private reading for those who are trying for Distinction (See § X, 6), in the Second Mathematics Class.

Books recommended: Turner and Allen's *Analytic Geometry* (The American Book Co.); Murray's *Spherics*, (Longmans, Green & Co.); Murray's *Spherical Trigonometry*, (L. G. Green, Green & Co.).

Advanced Mathematics Class.

12 M.—1 P. M.

The courses in these classes are intended for those who wish to take mathematical work in the third or the fourth year in the ordinary B. A. course (See § VII). They are also intended to serve as courses introductory to the study of higher mathematics, for those who may afterwards attend the graduate schools in the larger universities. Candidates for Honours in Pure and Applied Mathematics (§ VIII, (b)) are required to take four of these courses in class.

N. B.—Two of these courses will be given during each year. The same course will not be given in two consecutive years.

(1) **ADVANCED CALCULUS**.—Topics in the treatises of Todhunter, Williamson, Hartwick, Lamb, and Gibson. (Two hours weekly throughout the year.)

(2) **PLANE AND SOLID ANALYTIC GEOMETRY**, with an introduction to the general theory of higher plane curves, based on the treatises of Salmon and C. Smith. (Three hours weekly throughout the year.)

(3) **DIFFERENTIAL EQUATIONS**.—Murray's *Differential Equations*, with supplementary lectures. (Two hours weekly throughout the year.)

(4) **MODERN ALGEBRA**.—Topics in Determinants, Theory of Equations, Quantics, Invariants, with lectures on Series and Functions of a real variable. (Three hours weekly throughout the year.)

(5) **THEORY OF FUNCTIONS**.—An elementary course in the theory of functions of a complex variable. (Two hours weekly throughout the year.)

(6) **PROJECTIVE GEOMETRY**.—(Two hours weekly throughout the year.)

Private Reading.

Subjects and topics for private reading will be prescribed for students who aim at Distinction (See § X, 6), in the Second and the Advanced Mathematics Classes, and for candidates for Honours in Pure and Applied Mathematics (See § VIII, (b)).

XIII.—PHYSICS

(George Munro Professorship.)

Professor STEPHEN M. DYSON, M. A.

Junior Physics Class.

Monday, 4—5 P. M., Tuesday and Thursday, 11 A. M.—12 M.

In this Class a rapid survey of the whole subject of Experimental Physics is taken, the subjects treated being:—Dynamics; Properties of Solids and Fluids; Sound; Heat; Electricity and Magnetism; and Light and other forms of Radiation. The mode of treatment is inductive and quasi-historical, the generalizations and theoretical conceptions being worked up to experimentally but not systematically developed by deduction. The amount of mathematical knowledge assumed is not greater than can be acquired in the First Year Class in Mathematics.

Members of the Class who aim at passing merely, will be examined in those subjects only which are fully discussed in class. Those who aim at Distinction will be expected to give considerable attention to Dynamics, and to consult the works recommended by the Professor on all subjects that may be referred to in class. Students are expected to hand in problem papers for correction and criticism.

Books recommended: 'Students' Dynamics, Minchin; 'Hydrostatics, Magnets; 'Mechanics Treated Experimentally, Canning; 'Heat, Light and Sound, Jones; 'Electricity Treated Experimentally, Canning; 'Principles of Physics, Dethlefs; 'Nature, Thomson; 'Dynamics; 'Physics, Watson; 'Physics, Anthony & Brackett; 'Physics, Nichols; 'Elementary Manual of Heat, Glasbrook; and 'Elementary Manual of Light, Glasbrook.

Senior Physics Class.

Monday and Wednesday, 10 to 11 A. M.

The work of this Class extends over two years. It is assumed that students who take it have studied Differential and Integral Calculus in the Second Year Class in Mathematics, and have also taken the Junior Physics Class. The more important generalizations and theoretical conceptions, obtained inductively in the Junior Class, are made the starting point; and the treatment is thus largely deductive, deductions being tested by experiment, and important practical applications discussed.

Students who aim at passing merely, will be examined in those portions only of the subjects which are discussed in class. Those who aim at Distinction are expected not only to acquire considerable power of applying principles in the solution of problems, but also to study privately portions of the subjects not fully treated in class.

The subjects to be treated during the next two years are as follows:

1903-04 Properties of Matter, Heat, Electricity and Magnetism.—The Kinetic Theory of Gases will form a Special Course for Students aiming at Distinction.

Books recommended: Sound, 'Sound, Perry and Thomson; 'Treatise on Sound, Lord Rayleigh; Light, 'Theory of Light, Preston; 'Physical Optics, Glasbrook; Light, 'Light, Tait. Properties of Matter;

'Kinetic Theory of Gases,' Meyer and Raynes; *Heat*: 'Theory of Heat,' Maxwell; 'Theory of Heat,' Preston; 'Heat,' Tait; 'Heat,' Wright; 'Sketch of Thermodynamics,' Beckingham; 'Steam Engine,' Boissac; 'Lessons on Electricity and Magnetism,' Thomson; 'Elements of Electricity and Magnetism,' Thomson; 'Electricity and Magnetism,' Gray; Maxwell; 'Absolute Measurements in Electricity and Magnetism,' Gray; 'Dynamo-electric Machinery,' Thompson.

Mathematical Physics Class.

Mondays and Wednesdays, 11 A. M.—12 M.

It is assumed that students in this class have a knowledge of Analytical Geometry and Differential and Integral Calculus.

Books recommended: 'Kinematics and Dynamics,' MacGregor; 'Dynamics,' Williamson and Tait; 'Analytical Statics,' Todhunter; 'High Dynamics,' Heath; 'Statics, Minchie; 'Hydrostatics,' Greenhill; 'Hydro-mechanics,' Besant.

Advanced Experimental Physics Class.

At least once a week.

The subjects studied are (a) physical experimental methods, and the elimination of errors, this section of the class work being conducted mainly by private reading, under the Professor's supervision, of original papers by Faraday, Joule, and Kelvin; (b) the treatment of least squares, including graphical methods and the method of least squares, and the influence of errors of observation on results; (c) the relation of theory to experimental research illustrated by sketches of one or more of the following:—the kinetic theory of gases, the theory of solutions and of electrolysis, the wave theory of light.

Books of reference: Faraday's Experimental Researches in Electricity, Vol. I. (Grazziosi); Joule's Scientific Papers, Vol. I. (Taylor & Francis); Loeb; Kelvin's Mathematical and Physical Papers, Vol. II. (Carnegie Univ. Press); Merriman's Text-Book of Least Squares (John Wiley & Sons); Johnson's Theory of Errors and Method of Least Squares of W. E. & Sons; Hofmann's Gases, by Raynes (Longmans & Co.); Whetham's Solution and Electrolysis (Carnegie Univ. Press); Ledwith's Text-Book of Physical Chemistry (Arnold); Preston's Theory of Light.

Junior Practical Physics Class.

At least five hours a week.

The work of the class will consist of the experimental investigation of simple physical laws, constants such as density, specific heat, etc., being determined incidentally. Students are required to prepare reports on the investigations made, describing in outline the methods used, and discussing in detail the results obtained and their degree of precision.

Members of the class who wish to become Science teachers will be allowed to devote part of their time to the devising and executing of illustrative experiments of a qualitative and quantitative kind with the simple apparatus and materials usually available in schools. Those who do so will be required to prepare illustrated lessons and give these before an audience.

Students will be examined in the subjects of Chaps. I-VII. of Glazebrook & Shaw's Practical Physics and in other discussions, recommended by the Professor, of any experimental methods which they may have used. Their standing in the Pass and Distinction Lists will depend upon the number and quality of the papers prepared and lessons given, and on the results of the examination.

Books of reference: Glazebrook and Shaw's Practical Physics (Longmans Koblenz); The Physical Measurements (Churchill); Hofmann's Computational Rules and Logarithms.

Senior Practical Physics Class.

(At least five hours a week.)

The work of this class will consist of the investigation of physical laws of a more complex kind than in the Junior class, and a greater degree of precision will be expected in the determinations made. Students who show sufficient ability will be allowed to conduct new investigations, provided they do not use for that purpose a large portion of the prescribed time.

Members of the class are required to prepare reports on the investigations conducted, of the same kind as in the Junior class, to attend the lectures of the Advanced Experimental Physics Class on physical measurement generally, as described, e. g., in Glazebrook & Shaw's Practical Physics, and to study discussions of the methods they may use in the works recommended by the Professor.

Class standing is determined as in the Junior class.

Books of reference: Those specified above, together with Stewart & Gie's Elementary Practical Physics (Macmillan); Kyrtton's Practical Electricity (Casell); Nichols' Laboratory Manual of Physics and Applied Electricity (Macmillan); Ostwald's Physico-chemical Measurements (Macmillan); Wiedemann's, Physikalisches Praktikum; and Threlfall's Laboratory Arts (Macmillan).

Advanced Practical Physics Class.

(At least ten hours a week.)

The work will consist of new investigations conducted by students who have shown sufficient ability either in the Senior class or elsewhere.

Members of the class will be required to acquaint themselves with the literature of the subject in which their investigations lie, to prepare critical reports on these portions of it with which their work is more immediately concerned, and to prepare full reports on the methods and results of their own observations.

Reports which are of sufficient value will be communicated to the N. S. Institute of Science. If, though the subject may have been suggested by the Professor, the investigation has been conducted practically independently by the student, the report will be communicated in his name. If the student has been assisted by the Professor to such an extent that the investigation has not been conducted practically independently by himself, the report will be communicated as by the Professor and the student jointly.

Only a very limited number of students can be admitted to this class.

XIV.—CHEMISTRY.

(McLeod Professorship.)

Professor..... E. MACKAY, Ph. D.

Junior Chemistry Class.*Mondays, Wednesdays and Fridays, 9—10 A. M.*

The lectures in this class deal in an elementary way with the principles of general chemistry. At first the preparation and the characteristic properties of common acids and bases are studied, and then the chemistry of fire, of water and of air, the order of historical development being followed as nearly as possible. When some acquaintance with chemical facts has thus been gained, the fundamental laws of combination are taken up and the atomic theory and chemical formulae are introduced. Chlorine, nitrogen, carbon and some of their typical compounds are then studied, and thereafter the principal remaining elements, each in connection with the group of elements in the periodic system to which it belongs. Examinations, oral or written, are held fortnightly, and occasional written exercises are required.

Students aiming at Distinction are required to devote at least three hours a week to laboratory work. The laboratory work is designed to make the student familiar with ordinary laboratory operations and to lead him to solve simple problems in chemistry by experiment. Several common inorganic substances are prepared and studied; simple quantitative experiments are performed; and some time is devoted to elementary work in qualitative analysis.

Books recommended: Benson's *Introduction to the Study of Chemistry* (Macmillan & Co.) for both class and laboratory work.

Senior Chemistry Class.*(Tuesdays and Thursdays, 9—10 A. M.)*

The lectures in this class are for the first few weeks devoted to a fuller treatment of chemical theory and the chemistry of the metals than is given in the Junior Class. The remainder of the year is devoted to organic chemistry.

Students aiming at Distinction are required to devote at least three hours a week to laboratory work. This will include a fuller course in qualitative analysis than is given in the Junior Class, and, in addition, the preparation of pure laboratory reagents and of typical inorganic and organic substances.

Books recommended: For class use, Benson & Herdson's *Inorganic Chemistry for Advanced Students* (Macmillan & Co.); Benson's *Compounds of Carbon* (Macmillan & Co.). For reference, Benson's *Inorganic Chemistry, Advanced Course* (H. Holt & Co.).

Advanced Chemistry Class.*(One hour a week.)*

The subjects of study in this class are (a) History of chemical theory; (b) Special topics in inorganic and organic chemistry in connection with the reading prescribed for the Special Course in Chemistry and Chemical Physics.

Practical Inorganic Chemistry Class.

The work of this class consists of quantitative analysis and the preparation of inorganic substances.

One hour a week is taken for the discussion of analytical methods, and at least ten hours a week must be devoted to laboratory work. The preparations and analyses prescribed are designed to illustrate typical methods. The quantitative exercises carried out are the following: preparation of standard solutions of acids and alkalis; estimation of chlorine, sulphur, phosphorus, silicon, silver, copper, iron, manganese, calcium and magnesium, volumetric as well as gravimetric methods being employed wherever applicable.

Candidates for Distinction are required to undertake additional work selected from the following: estimation of iodine, nitrogen in nitrates, carbon in carbonates, potassium, chromium, aluminium, zinc, and lead, analysis of iron and steel, analysis of ores, water analysis.

Books recommended: Heron's *Inorganic Preparations*, Johns Hopkins Press; Carey and Coleman's *Quantitative Analysis*, J. & A. Churchill; Haly's *Chemical Analysis of Iron*, J. B. Lippincott & Co.; Mason's *Estimation of Water*, Wiley & Sons.

Practical Organic Chemistry Class.

The work of this class consists of the preparation and analysis of organic compounds. At least ten hours a week must be devoted to laboratory work. A sufficient number of organic compounds are prepared to illustrate the most important reactions and methods of working. Quantitative determinations are carried out of carbon, hydrogen, oxygen and nitrogen.

Students are permitted to substitute for the analytical work an equivalent amount of work in other branches of analysis, or in physiological chemistry.

Candidates for Distinction are required either to do additional work of the kind outlined above or to carry out a short original investigation.

Books recommended: Benson's *Compounds of Carbon* (Macmillan & Co.); Cohen's *Practical Organic Chemistry for Advanced Students* (Macmillan & Co.); Carey and Coleman's *Quantitative Analysis*, J. & A. Churchill.

Advanced Practical Chemistry Class.

The work of the class will consist either (a) of original investigation conducted by students who have shown themselves qualified to undertake it, or (b) of work in analytical or synthetical chemistry in continuation of the work of either the Practical Inorganic or the Practical Organic Class.

CHEMICAL LABORATORY.

The general laboratory accommodates about eighty students; the quantitative laboratory about sixteen. A reference library is placed in the laboratory for students doing advanced work.

Laboratory students are allowed the use of all the more expensive reagents. They are required to provide themselves with the more expensive reagents, as alcohol and ether, and they are charged with the value of apparatus they have broken or injured.

All members of practical classes are required to keep a detailed record of their laboratory work. The character of this record is a factor in determining the standing of a student in the class lists.

The general laboratory is open to students in Arts on Mondays and Wednesdays from 3 to 6 p. m. The quantitative laboratory is open daily except Saturdays from 9 a. m. to 5 p. m.

XV.—GEOLOGY.

Assistant Professor..... J. EDMUND WOODMAN, A. M., S. D.

Elementary General Geology.

Lectures, laboratory and field work, reports, and collateral reading.
Tu. and Th., 12.00—1.00; laboratory, Tu and Th., 3.00—5.00;
field work on Saturdays (morning or whole days) throughout the
fall, and thereafter when practicable.

This course is prerequisite to the other courses in the subject. A knowledge of Junior Chemistry is demanded, and of Junior Physics is recommended. The ground covered is chiefly that of inorganic geology. No text-books are required, but a course of reading is followed, embracing citations from both text-books and original works, and practice is given in abstracting geological literature. The excursions deal with existing phenomena—the work of frost, snow, streams, wind, currents, waves, weathering, etc.; and the glacial, sulfataric, igneous, sedimentary and structural forms of the region. Special attention is given to the elements of geological surveying. In the fall of 1902, class excursions were made along the west shore of lower Halifax harbor (twice), to the islands of the east side of the harbor, to Waverley (two days), to the valley of Sackville river, to the east side of the upper harbor and Bedford Basin, and two on the Halifax peninsula, making seven full days of stated excursions. In addition to these or similar excursions, an individual structural problem is assigned to each student, involving mapping and interpretation of a small area. The field studies form an indispensable part of the course, and no one will be allowed to pass who has not a satisfactory knowledge of the laboratory and field work, gained from constant attendance at these exercises. Students aiming at Distinction are given special library and field work.

A general outline of the lectures and laboratory topics for 1903-4 is given below:—

Introduction: the subject and its environment, the four corners of geology. Pre-geologic chapters in the earth's history; astronomical hypotheses of origin; sources of energy acting within and on the earth. Early condition of the earth as a globe.

Chemical elements most important in rocks, chemical and physical characters. Essential and important accessory minerals of original igneous rocks, form, structure, composition, microscopic characters. Groups of minerals, abyssal and hypabyssal rocks. Processes concerned in intrusion, and forms produced. Effusive rocks. Volcanic processes and forms. Pyroclastic rocks. Sulfataric and vein phenomena and products; ore deposits from solution. Earthquakes; phenomena and distribution; proximate origins.

The role of water. Under-water; subsurface, spring, cavern, abyssal, hygroscopic. Weathering of igneous rocks; disintegration, decomposition; methods of action, and resulting forms and substances. Gradational processes; gravity (talus cones); over-water—rain, sheet-flood and rivers (runoff water), lakes and seas (static water); destructive and constructive work of waves and currents. Products; distribution of detritus, and forms produced. Physiographic history of land forms, as influenced by running and static water. Gradation by ice; classification of ice masses; methods of erosion; distribution, past and present; theories of motion and of origin of glaciers; glacial climates. Products of glaciation; destructional forms in bedrock and till; form, structure and origin of constructional deposits. Gradation by wind; history of wind swept regions. Products of eolian action.

Consolidation of strata; general and concretionary consolidation. Products of mechanical inorganic sedimentation; rock species; cycles of deposition; problems of shifting sea-bottom; original structures in strata. Formation of rocks through the action of life. Weathering of sedimentary rocks.

Joints; structure and attitudes; origin; attendant phenomena—folds; classification, distribution and characteristics; origin; types—simple and compound; origin. Faults. Mathematical problems in the intersection of deformation and denudation. Mountain building and continental deformation; structural types; history; origin. Ultimate sources of energy and vulcanism. Contact metamorphism; methods and products. Dynamic metamorphisms; local, regional; origin, methods of action; origin of the crystalline schists.

Divisions of geologic time; periods and subdivisions; methods of determination. Fossilization; parts preserved, and methods of entombment and preservation; imperfections in the geologic record. If time permits, a short study of the organic and inorganic evolution of the North American continent will be made.

Advanced General Geology.

Lectures, field, laboratory and library work. Monday, Wednesday and Friday, 9.00—10.00; field work one day or two half-days per week, during the fall; library work throughout the winter, with conferences.

The field studies include advanced geological surveying, and especially the preparation of a map and sections of a limited area in great detail, made possible by the use of highly accurate base maps. Field experience in interpreting the geologic history of formations is also acquired. A short period of laboratory work in the winter is upon paleontology. The library work includes the reading and abstracting of original papers bearing upon the subject matter of the course, and the preparation of a short thesis from library material, upon some geological problem. [Candidates for Distinction will be assigned a higher grade of field work, and a thesis of greater difficulty.] The following are among the subjects treated in the lectures during 1903:—

No attempt is made to cover the general field of the science, but rather it is aimed to present in some detail certain subjects made important by the environment.

Methods of geological surveying; field note-book keeping; recording and interpreting field observations; use of plan, barometer and contour maps; effect of topography on axial strike; making of completed areal maps, including computation and plotting of faults and axial lines, construction of sections; problems in the junctions of folds and faults in the field.

Folds and faults; study of types, and interpretation of history. Intersection of deformation and denudation, and its results. History of selected mountain regions. Methods of mountain building, and theories of causation. Studies in the dynamical history of selected continental masses.

Glaciology, with special reference to the historical interpretation of rock scarring and of deposits; characteristics, classification, distribution, motion and origin of recent and extinct glaciers; work of ice in erosion, transportation and deposition; origin, structure and distribution of deposits.

Elements of paleontology and historical geology; outline of paleontology and paleobotany, succession of organic forms in the geologic ages.

Outline of the geologic history of Canada, with special reference to Nova Scotia.

Economic Geology.

Lectures, library and field work: Monday, Wednesday and Friday, 11.00—12.00. Field and library work by appointment.

Since it is impossible in one course to discuss all the important sources of mineral wealth, the ground covered in the lectures will be restricted to those of most value to the students, other subjects being to some extent included in the reading. During the latter part of the session a thesis must be prepared, embodying the results of reading, and in some cases of field work, along a special line of study. Candidates for Distinction are required to do additional reading and field work, the amount and nature depending upon the subjects.

Mineralogy is a prerequisite for this course.

The course is divided into two parts, devoted to metalliferous and non-metalliferous deposits, respectively.

(1) The first part of this section embraces a general study of the ores, their habits of occurrence, the geology of their environment, and theories of genesis. The second part will consider the geological occurrence of ores and their economic development, in different parts of the world. In 1903-4, the metals most fully treated will be gold, silver, iron, copper, lead, zinc. (2) The second section of the course will take up water supply, building and road materials, gypsum, lime, clay, and the chief hydrocarbons.

Throughout the course, special attention will be paid to the economic geology of Nova Scotia.

Geology—Research Course.

Only students who have attained a high grade in the Advanced General or Economic courses will be admitted to this course. One subject will be chosen for each member to be followed throughout the year, and miscellaneous studies will not be accepted. The topics must be such as the previous training of the student will allow. The course will require a minimum of twelve hours a week of work, and may be counted for more than one course under some circumstances.

Opportunity will be offered to the student to publish the results of any work which adds to existing knowledge, especially in problems presented by the geology of adjacent regions.

No lectures are held in this course, their place being taken by a conference, held once a week, at which the students will report upon the progress of their field work and reading, and discuss problems connected with or growing out of it.

XVI.—MINERALOGY.

Assistant Professor..... J. E. WOODMAN, S. D.

Elementary Mineralogy.

Lectures and laboratory work: Tuesday and Thursday, 9.00—10.00; Laboratory, Monday, Wednesday (and occasionally Friday), 2.00-5.00.

The course opens with a study of crystallography, by means of models, diagrams, and crystal specimens. Optical mineralogy is very briefly treated, and physical mineralogy in somewhat greater detail. Special collections in the latter branch are used to illustrate the different physical characters. A short time is spent in introductory blow-

pipe practice, tests for the more important elements being made, and the remainder of the course is concerned with determinative mineralogy. Blowpipe tests are used; but practice is given especially in identifying species by the more easily applied methods, as with the knife, lens, streak plate, magnet and acid. The object is to familiarize the student with those minerals which are of most geological and economic importance, and about 130 species are studied in the laboratory. The lectures cover a wider field, including more species, and a study of the chemical relationships of minerals.

Text Books: Dana, E. S.—Text-book of Mineralogy, 1902. Brush, G. J., and Penfield, S. L.—Determinative Mineralogy and Blowpipe Analysis.

XVII.—BIOLOGY.

The classes in Biology, conducted by the Faculty of Science, and the examination conducted by the Faculty of Science in this subject, are recognized as qualifying for a degree. See Faculty of Science.

XVIII.—HISTOLOGY.

The University provides no instruction in this subject; but the class conducted in the Halifax Medical College by Professor G. M. Campbell, and H. D. Weaver, M. D., is recognized as qualifying for a degree. The class meets on Mondays, Wednesdays, and Fridays, at 10—11 a. m. The fee for the course is \$15.00.

XIX.—PHYSIOLOGY.

The class in this subject, conducted in the Halifax Medical College, is recognized as qualifying for a degree.

§ XII.—The Academic Year.—The Academic year consists of one Session. The Session of 1903 will begin on Tuesday, 8th September, 1903, and end on Tuesday, 26th April, 1904.

§ XIII.—Degree of Bachelor of Arts.—(1) Candidates for this degree must attend with regularity the classes of their courses of study as prescribed in § vii, perform the exercises required and appear at the examinations held in connection with such classes, and secure a position on the Pass Lists in all subjects. The course of study extends over at least four years, but, in the case of students who enter at advanced stages, may be completed in a shorter time.

(2) Persons may become candidates for degrees by passing the Junior or Senior Matriculation Examination, (§§ xv, xvi). Those who pass the Senior Matriculation examination are exempted from attending the classes recommended in § vii to be taken in the first year of attendance, and may complete their courses in three years. In general, the Matriculation examination is to be passed by a student

before he enters upon a course of study leading to a degree. For subjects of examinations, examinations recognized as equivalent, &c., see § § XV, XVI.

(3.) General students who have attended some of the classes in either of the Courses of Study and passed in the subjects of them, may become candidates for a Degree by passing one of the Matriculation examinations, in which case the classes previously attended will be recognized as qualifying for a Degree. But in those subjects of the Matriculation examination in which they have previously attended classes, such students will be expected to show a higher proficiency than if they had passed the examination at the beginning of their course.

(4.) Undergraduates of other Universities may, on producing satisfactory certificates, be admitted *ad eandem statum* in this College, if they are found qualified to enter the classes proper to their years. But if their previous courses of study have not corresponded to the courses on which they enter in this college, they may be required by the Faculty to take additional classes.

§ XIV.—Junior Matriculation Examination.

—(1.) The following are the subjects of this examination :

1.—2. Two of the following languages must be selected; Latin, Greek, French, German. Candidates for B. A. must pass in Latin. If they are to take Greek as one of the subjects of the First Year, they must also pass in Greek.

LATIN.—Translation: (a.) Passages for translation from prescribed books with questions arising out of those books. (For 1903) *Cæsar: Gallic War*, Book I and Vergil, *Æneid*, Book III. (For 1904) *Cæsar: Gallic War*, Books II and III; and Vergil: *Æneid*, Book I. (b.) Short and easy passages for translation at sight from books not prescribed. Composition: Such a knowledge as may be gained from Collar and Daniel's First Latin Book, and the first eighteen exercises of Bradley's Arnold's Latin Prose Composition. Grammar: As in Bennett's Latin Grammar, or Allen and Greenough's.

NOTE.—The Roman pronunciation of Latin as given in all the modern grammars, is the one used in the class-room. It is strongly recommended that special attention be given to the reading of the Latin aloud with correct accent, with fluency, and with proper expression. This recommendation applies also in the case of Greek, the words being accented according to the written Greek accent, and the diphthongs pronounced as follows:

ai as in aisle,	ao as oa in oat,
ea as in height,	er as in fear,
eo as in coil,	ee as in sheep,
ui as in quiet,	ey as ea-oo rapidly pronounced.

GREEK.—Translation: (a.) Passages for translation from prescribed books with questions arising out of those books. (For 1903), Xenophon, *Anabasis*, Book I. (For 1904), Xenophon, *Anabasis*, Book II. (b.) Short and easy passages for translation at sight from books not prescribed. Composition: Such a knowledge as may be gained from White's First Greek Book, and the first fifteen exercises of Fletcher and Nicholson's Greek Prose Composition. Grammar: As in Elementary Grammars.

FRENCH.—Voltaire: *Charles XII*, Books I, II, III. Grammar questions limited to the Accidence, and based on the passages selected for translation.

GERMAN.—Bachstein, *German Reader*, Part I. (Clarendon Press), or Haefl, *Das Wörterbuch im Spassort* (Macmillan & Co.), omitting the five tales interwoven in the original story. Grammar questions limited to the Accidence, and based on the passages selected for translation.

3.—**ENGLISH.**—Language: Grammar, Analysis, Parsing. Composition: An essay on one of several set subjects to be drawn from:—Macaulay, *Warren Hastings*; Shakspeare, *Merchant of Venice*; Longfellow, *Evangelist*; Scott, *The Lady of the Lake*.

Questions on the interpretation of a passage not specified; to test general intelligence.

NOTE.—The essential part of this examination is the essay. Legible writing, correct spelling and punctuation, will be considered indispensable. Skill shown in sentence and paragraph construction will be awarded high marks. Not more than one of the works named need be read. It should be read primarily for the story, and need not be studied minutely, as a choice is allowed among at least four themes drawn from the works named.

4.—**ARITHMETIC AND ALGEBRA.**—*Arithmetical Algebra*: As in Hall & Knight's *Algebra for Beginners*, or Toddhunter and Loney's *Algebra for Beginners*, or Wentworth's *Algebra*.

5.—**GEOMETRY.**—Euclid, Books I, II, III, IV, Definitions of Book V., Book VI., first 19 propositions, or their equivalents.

6.—**HISTORY AND GEOGRAPHY.**—Outline of English and Canadian History and General Geography.

Candidates who pass in three or more subjects, but fail to pass the examination as a whole, will be exempted from such subjects, should they appear as candidates on any subsequent occasion.

Candidates reaching a certain standard will be declared to have passed with Distinction, and will be eligible for the Sir William Young and Professors' Scholarships, and the Mackenzie Bursary. (§ XV.)

(2.) Candidates who hold the following Diplomas, Licenses or Certificates, shall be exempted from the above examination in subjects which were included in the examinations by which such Diplomas, Licenses or Certificates were

obtained, and in which a sufficiently high standard was reached:—

- a) Teachers' Licenses of Grades A or B of Nova Scotia.
- b) High School Leaving Certificates of Grades XII (A.) or XI (B.) of Nova Scotia.
- c) Honour Diplomas, or First or Second Class Ordinary Diplomas, as issued by the Prince of Wales College, P. E. I.
- d) First Class Teachers' Licenses of Prince Edward Island.
- e) Superior Licenses (except in the subject of Latin), or First Class, or Grammar School Licenses, of New Brunswick.

Candidates who hold Teachers' Licenses or Leaving Examination Certificates issued by the Education Office of other Provinces, may be exempted from the whole or from parts of the above examination on application to the faculty.

Persons who, as candidates for the above licenses or certificates, succeeded in reaching a sufficiently high standard in the majority of the subjects of the above examination, shall be exempted from examination in such subjects.

(3.) Persons may be admitted as Undergraduates of the First Year, without examination, on presentation of certificates from the Principals of High Schools or Academies, approved for this purpose by the Faculty, stating that they have satisfactorily completed the work prescribed for the Junior Matriculation Examination, and passed satisfactory examinations therein.

(4.) This examination will be held at the College on September 9th—14th, 1903.

§ XV.—Senior Matriculation Examination.

—(1.) The following are the subjects of this examination:—

1—2. Two of the following:—Latin, Greek, French, German.

Candidates for B. A. must pass in Latin. If they intend to take Greek as one of the subjects of the Second Year they must also pass in Greek; if not, they may select Greek, or French, or German.

LATIN.—(For 1903).—Cicero, *De Senectute*, *De Amicitia*; Horace, *Epistles*, Books I and II; Tacitus, *Historia*, Book I.

(For 1904).—Cicero, *Pro lege Manilia*; Horace, *Odes*, Books III and IV; Tacitus, *Historia*, Book I.

GREEK.—(For 1903).—Lucian, *Vera Historia*; Demosthenes, *De Corona*, (omitting the documents).

(For 1904).—Plato, *Apology & Crito*; Demosthenes, *De Corona*, (omitting the documents).

The papers in Latin and Greek will contain passages for translation from the books prescribed, together with grammatical and other questions arising out of those books, and short and easy passages for translation from books not prescribed. General questions in Latin and Greek Grammar will also be set, and some English sentences to be turned into Latin and Greek.

FRENCH.—Macmillan's Progressive French Reader, II Year; Melière, *Le Brevetien Gastibonnet*; Scribe, *Valérie*; Grammar (Bruchet, Public School Grammar); Composition.

GERMAN.—Herrf, *Wörterbuch im Spott*, excluding the five tales interwoven in the story (Macmillan & Co.); or, Paul Heyse: *Aufbau und Ende* (American Book Company); Buchheim: German Reader, Part II; Schiller: *Wallenstein Teil I*; Grammar (Joyes-Meissner); Composition.

3. ENGLISH.—Language: Grammar, Analysis, Parsing, Composition. An essay on one of several set subjects; to be drawn from:—Macaulay: Warren Hastings; Shakespeare: Merchant of Venice; Longfellow: Evangeline; Scott: The Lady of the Lake. (See § 4, 3. Note.)

Literature.—Eighteenth Century: Prose. Addison: Papers contributed to the Spectator. Johnson: Life of Pope, (Macaulay); Samuel Johnson: Dryden: MacPherson, St. Cecilia's Day, Alexander's Feast. Pope: Rape of the Lock. Gray: Essay in a Country Churchyard. Goldsmith: Traveller, Deserted Village. Burns: Two Dogs, Cotter's Saturday Night.

History and Geography.—Outlines of English and Canadian History and General Geography.

Instead of the works prescribed here in Latin, Greek, French, German and English, candidates for matriculation (but not for scholarships) may offer equivalents; provided they have been previously approved by the President.

4. MATHEMATICS.—Arithmetic, Algebra, Geometry, and Trigonometry, as specified for the Junior Matriculation Examination and in the work of the First Mathematics Class. (See § 1, page 30, § V.)

Algebra.—Indices, Theory of Quadratic Equations, Irrational Quantities, Quantities involving $\sqrt{-1}$, Proportions, Variation, Progressions, Notation, Permutations and Combinations, Binomial Theorem, Inequalities, Indeterminate Equations, Properties of Logarithms, Interest and Annuities. Horner's method of approximating to the roots of an equation. Elementary theorems concerning equations, functions, limits, and series. Graphical representation of functions, and plotting of loci of equations. Elements of Determinants, with applications to elimination and the solution of simultaneous equations. Partial Fractions. Probability.

Geometry.—Euclid, Books VI, XI, Propositions on Harmonic Ratios, and Parallel, Polar, and Transversals. Geometry of the Sphere. Elementary propositions in the geometrical treatment of the parabola and the ellipse.

Trigonometry.—The solution of plane triangles. Measurement of heights and distances. Elementary angular statistics.

N. B.—The above subjects are prescribed for Candidates for Senior Scholarships. Should such Candidates desire to have subject 5 reckoned for scholarship purposes, they must notify the President to that effect in their application for matriculation. The award will be made according to average of marks.

5. CHEMISTRY, or BOTANY.—**Chemistry.**—The elements of General Chemistry. Rossen's *Introductory to the Study of Chemistry* (Macmillan & Co.) may be taken to indicate in a general way the extent of knowledge required. Special importance will be attached to an acquaintance with the experimental evidence upon which the more important facts and the fundamental laws of the science are based.

Botany.—The elements of General Botany. Bessey's *Essentials of Botany* and Spotton's *High School Botany* may be taken to indicate in a general way the extent of knowledge required and the method to be pursued. The examination will be designed to test the extent to which the candidate's knowledge of the subject is founded upon practical study.

Candidates may take either Chemistry, or Botany as the subject 5 of this examination. All candidates for degrees who do not pass in the Chemistry of this examination, are required to take the class in Junior Chemistry as one of the subjects of their course. Should any candidate pass in the Botany of this examination, he shall not be permitted to offer Botany as one of the electives of his course.

(2.) Candidates who have previously passed in one or more of the above subjects, either at the Senior Matriculation Examination or at the Junior Matriculation and First Year Examinations, shall be exempt from further examination therein.

(3.) Candidates who hold the following Licenses, Diplomas or Certificates shall be exempted from the above Examination in subjects, except Chemistry, which were included in the Examinations by which such Licenses, Diplomas or Certificates were obtained, and in which a sufficiently high standard was reached:

- a) Teachers' Licenses of Grade A of Nova Scotia.
- b) High School Certificate of Grade XII (A) of Nova Scotia.
- c) Honour Diplomas, or First-Class Diplomas on the Third Year work, as issued by the Prince of Wales College, P. E. I.
- d) Grammar School Licenses of New Brunswick.

Candidates who hold the following Licenses or Certificates shall be exempted from such parts of the Junior Matriculation Examination as are common to it and the examinations by which such Licenses and Certificates were obtained, provided

that in the latter the candidates reached a sufficiently high standard:

- a) Teachers' Licenses of Grade B of Nova Scotia.
- b) High School Certificates of Grade XI of N. S.
- c) First Class Teachers' Licenses of P. E. I.
- d) Second Class Honour Diplomas of Prince of Wales College.
- e) Superior or First Class Licenses of New Brunswick.

Candidates who hold Teachers' Licenses or Leaving Examination Certificates, issued by the Education Offices of other Provinces, may be exempted from the whole or from parts of the above examination, on application to the Faculty.

Persons who, as candidates for the above Licenses and Certificates, attained a sufficiently high standard in the more important of the subjects of the above examination, shall be exempted from examination in such subjects.

(4.) Candidates must give at least one fortnight's notice to the President, of their intention to appear at this examination; and, in giving such notice, they must state in what Latin, Greek, French, German, and English books they intend to offer themselves for examination, and in what subjects they claim exemption from examination.

(5.) This examination will be held at the College, on September 9th—14th, 1903.

§ XVI.—Ordinary Courses of Study for Degree of B. A.—(1.) The B. A. course consists of the following classes:

- a) Three in either Latin or Greek.
- b) Two in English.
- c) Two in one of the following:—The classical language not selected to be studied for three years, German, French.
- d) One in each of the following:—History, Philosophy, Mathematics, Physics, Chemistry.
- e) Eight single classes (or an equivalent), to be selected, subject to the approval of the Faculty, from the lists given below [§ xvi (8), p. 35] a single class being one in which two or three lectures per week are given, a double class one in which the number is four or five, and one double class being regarded as equivalent to two single classes.

(2.) The classes not specified above, which are selected by students as part of their course, must be submitted to the President for approval at a date not later than Oct. 1, 1903.

(3) Undergraduates in taking French or German for the first time, enter the classes for which the Professor considers them fitted. In other subjects, they enter the First or Junior classes.

(4) The First class in Latin, Greek, French and German is not recognized as a part of the course for a degree unless the Second class is subsequently taken.

(5) No class in which the subjects studied are the same from year to year, can be taken twice as part of a course.

(6.) A sufficient number of the more purely literary, philosophical, or scientific subjects of theological, legal, and medical courses respectively, are included among the elective subjects, to enable the students during his course to complete part of one or other of these professional courses. Students taking Constitutional History, Constitutional Law and Contracts, and passing therein, during their Arts Course, are allowed to complete their Law Course in this College subsequently, in two years, (§ xi (4)).—Students who have registered as undergraduates in Medicine, may complete their course in Medicine in three years after the completion of their Arts Course by taking Junior Chemistry, Junior Physics and Biology, as part of their Arts course, and by taking Junior Anatomy as an additional subject. They are recommended to attend the class in Histology, to avoid conflict of hours in the time-table. (See Faculty of Medicine).

(7.) The classes in the above courses may be taken in any order subject to the provisions:—(1) that in any one subject classes are to be taken in the order of their advancement; (2) that First Mathematics is to be taken before Junior Physics; and (3) that Junior Physics is to be taken before Practical Physics.

(8.) In the following statement, the classes are arranged in years, to show the order in which it will generally be found most convenient to take them. The time-table of lectures and the dates of examinations are based upon this arrangement.

The details of the subjects studied in these classes will be found under Courses of Instruction. (§ xi).

First Year.

1. Latin or Greek.
2. The classical language not selected as subject 1; or French, or German.
3. First English.

4. First Mathematics.

5. Junior Chemistry.

N. R.—Undergraduates who intend in their Third Year to enter the Special Course in Mathematics and Physics, or Chemistry and Chemical Physics, (§ xvii, 12 and 13), are recommended to take German as subject 2, and to give special attention to Mathematics and Chemistry.

Undergraduates who intend to enter other special courses, are recommended to take German as an additional class.

Second Year.

1. The language selected as subject 1 in the First Year.
2. The language selected as subject 2 in the First Year.
3. Second English.

4—5. Any two of the following:—Mathematics, Chemistry, Junior Physics, Junior Philosophy, Geology. Students taking Greek may take one of the electives of the Third and Fourth Years.

If the classes in Physics and Philosophy are not taken in this year, they must be taken in a subsequent year.

Third and Fourth Years.

1. Latin or Greek or N. T. Greek. The language selected must have been taken during the First and Second Years.
2. Junior History.
- 3—10. Eight classes from the following subjects:—

Latin,	Contracts,
Greek,	Political Economy,
N. T. Greek,	Philosophy,
Hebrew,	Science of Education,
French,	Mathematics,
German,	Physics,
Biblical Literature,	Chemistry,
English,	Geology,
History,	Mineralogy,
Constitutional History,	Biology,
Constitutional Law,	Histology, or Physiology.

N. B.—Any advanced Class may, in these years, be taken as an ordinary class, if approved by the Faculty.

§ XVII. — Special Courses for Degrees.

(1.) An undergraduate shall be allowed, after completing the work recommended in § XVI for the first two years of his course, to restrict his attention to a more limited range of subjects than that of the ordinary course, by entering upon one of the Special Courses, provided he has either attained both a First Class standing at the previous Examination in the subject corresponding to that of the Special Course selected, and a satisfactory standing in the other subjects, or has received the special permission of the Faculty.

(2.) Special Courses are provided in the following departments, viz., (A) Classics, (B) Latin and English, (C) Greek and English, (D) English and German, (E) English and English History, (F) Philosophy, (G) Pure and Applied Mechanics, (H) Mathematics and Physics, (I) Chemistry and Chemical Physics, (J) Geology.

(3.) An undergraduate taking a special course in any of the above departments shall be required to attend the Advanced Classes provided in the subjects of such departments (§ XI), to make progress satisfactory to the Professors who conduct such classes, and to pass the examinations in the subjects of such department. He shall be allowed to omit, from the subjects of the ordinary course, certain subjects specified below, and may select as his ordinary classes in any year, any of the classes of that year, subject to the following regulations and to the approval of the Faculty.

(4.) The examinations in the subjects of Special Courses shall be held at the end of the Fourth Year.

(5.) Undergraduates taking the Special Course in **Classics** (A) may, in each of the Third and Fourth Years omit any two of the subjects of those years, except Latin and Greek.

They shall be examined in the following subjects:—

LATIN.

I. Candidates will be required to have a critical knowledge of the following works, in addition to those prescribed in the ordinary course:—

Plautus: *Miles Gloriosus*.
Terence: *Adelphi*.
Virgil: *Georgics*, Books 1, IV.
Horace: *Epistles*, Books I, II; *Art Poetica*.
Juvenal: *Satires*, Books VII, VIII, XIV.
Cicero: *De Oratore*, Books I, II, III.
Livy: Book XXI, XXII.
Tacitus: *Agriicola*: *Annals*, Book II.

II. Candidates will be required to show a general knowledge of one prose and one verse subject, to be chosen by them from the following list:—

Plautus: *Asinaria* and *Captivi*.
Terence: *Andria*, and *Heautontimorumenos*.
Cicero: Select Letters, (Muirhead's edit., Longmans, London).
Tacitus: *History*, Books III, IV, V.

III. COMPOSITION.—Prose.

IV. LITERATURE.—Crestwell's History of Roman Literature, selected chapters.

V.—PHILOLOGY.—Victor Henry's Comparative Grammar of Greek and Latin.

GREEK.

I. Candidates will be required to have a critical knowledge of the following works, in addition to those of the ordinary course:—

Aeschylus: *Eumenides*.
Sophocles: *Oedipus Rex*.
Aristophanes: *The Knights*.
Homer: *Odyssey*, Books V, VI, VII, VIII.
Theophrastus: Book II.
Pindar: *Paeanic*.
Demosthenes: *De Corona*.
Aristotle: *Poetics*.

II. Candidates will be required to show a general knowledge of one prose and one verse subject, to be chosen by them from the following list:—

Aeschylus: *Agamemnon*, and *Cleopatra*.
Sophocles: *Oedipus Colonus*, and *Antigone*.
Theophrastus: First and Third Books.
Aeschylus: *Centaur Chryseides*, and
Demosthenes: *De Falsa Legatione*.

III. COMPOSITION.—Prose.

IV. PHILOLOGY.—Victor Henry's Comparative Grammar of Greek and Latin.

V.—LITERATURE.—Mahaffy's History of Greek Literature, the portions bearing on the authors and subjects read by the candidate during his college course. Haigh's Theatre of the Greeks.

(6.) Undergraduates taking the Special Course in **Latin and English** (B) may, in each of the Third and Fourth Years of their course, omit any two of the subjects of those years except Latin and English. They shall be examined in the following subjects, viz.:—

LATIN.

The Latin subjects prescribed for the Special Course in Classics.

The historical development of the language and literature to the year 1300. Bright, *Anglo-Saxon Reader*. Sievers, *O. E. Grammatik* (trans. by Cook), Pt. II. Morris, *Specimens of Early English*, I. Emerson, *History of the English Language*. Sight reading of O. E.

History of the Elizabethan and Early Stuart Literature. Sidney, *Apologie for Poetrie*. Hooker, *Ecclesiastical Polity*, Book I. Bacon, *Advancement of Learning*, Essays.

Marlowe, *Tamburlaine*, *Edward II.*, *The Jew of Malta*. Greene, *Frier Bacon and Frier Bungay*. Jonson, *The Alchemist*, *Every Man in His Humour*. Beaumont and Fletcher, *Philaster*, *The Knight of the Burning Pestle*. Massinger, *A New Way to Pay Old Debts*, *Wolstenholme*, *The Duchess of Malfi*. Shakspere, *Titus Andronicus*, *Romeo and Juliet*, *Julius Cæsar*, *Hamlet*, *Othello*, *Lea*, *Macbeth*, *Antony and Cleopatra*, *Coriolanus*, *Timon*, *The Two Noble Kinsmen*.

Books recommended: Sidney, Cook's edition (Horn & Co.); Hooker, Church (Charleston Press); Bacon, Advancement, Wright (Clar. Press); Essays (Wright, G. T. Sereno). History of Literature; Ten Brink, sainte-hary, Brockes. Chapman Press. "Merriman," "People Dramatists," and other editions of Elizabethan works.

In awarding Honores, the thesis for Distinction in Fourth (D) English will hereafter be taken into consideration.

(7.) Undergraduates taking the Special Course in **Greek and English** (c) may, in each of the Third and Fourth Years of their course, omit any two of the subjects of those years, except Greek and English. They shall be examined in the following subjects, viz:—

GREEK.

The Greek subjects prescribed for the Special Course in Classics.

ENGLISH.

The English subjects prescribed for the Special Course in Latin and English.

(8.) Undergraduates taking Special Course in **English and German** (d) must have taken German in the First and Second Years of their course, and may in each of the Third and Fourth Years omit any two subjects of those years except English and German. They shall be examined in the following subjects:—

ENGLISH.

The English subjects prescribed for the Special Course in Latin and English.

GERMAN.

Middle High German; Grammar (Wright's Middle High German Primer); Selections from Hartmann von Aue, Walther von der Vogelweide, Nibelungenlied, Gudrun, Wolfram von Eschenbach, Freidank, or Gottfried von Strassburg, Sebastian Brant, (Wackernagel's Kleinere Altdcutsches Lexicbuch.

Selections from Swiss and Plattdeutsch dialect literature.

German Literature of the 16th, 17th and 18th centuries, with selections from authors of that period.

Two of the chief literary works of Goethe not read in the ordinary course.

Translations of unspecified passages from any Modern High German author.

Prose Composition.

(9.) Undergraduates taking the Special Course in **English and English History** (e) may, in each of the Third and Fourth Years of their course omit any two of the subjects of those years, except English and History. They shall be examined in the following subjects, viz:—

ENGLISH.

The English subjects prescribed for the Special Course in Latin and English.

ENGLISH HISTORY.

English History from A. D. 1603-1689.

Books recommended: Green's History of the English People, Vol. 2; Lingard's History of England, Vols. 9-14; Hallam's Constitutional History of England; Bantock's History of England; S. R. Gardiner's works on this period; Chapman's History of the Great Rebellion; Masson's Life of Milton; Carlyle's Life of Cromwell; Foster's Life of Eliot; Bayne's Chief Actors in the Puritan Revolution.

(10.) Undergraduates taking the Special Course in **Philosophy** (f) may, in each of the Third and Fourth Years of their course omit any one of the subjects of those years, except Senior Philosophy, Modern Philosophy, Moral Philosophy, and Greek Philosophy. They are recommended to take German. They shall be examined in the following subjects:—

I. General History of Philosophy.

Barnet; Early Greek Philosophy.
K. Fischer; Descartes and his School.

II. Greek Philosophy from the Sophists to Aristotle.

Plato: Republic (with Nettleship's Lectures).
Theaetetus (with Hyde's Introduction).
Aristotle: Metaphysics, Book I, and Ethics (with Muirhead's Introduction).

III. Modern Philosophy from Locke to Kant.

Fraser; Evolutionism to Locke
Green; Introduction to Hume.
Seth; Scottish Philosophy.
Reyce; Modern Philosophy, Part I.

A knowledge of Locke, Berkeley, Hume and Reid, as studied in the Class on Modern Philosophy is presupposed.

IV. Kant: The Critiques of Pure Reason, of Practical Reason, and of Judgment (as in Watson's Selections).

Regeal; Logic, Chaps. I-VI. (Wallace's Translation).
Seth; Hegelianism and Personality.

V. Any three of the following:

1. Principles of Logic. Bosserquet; Logic.
2. Principles of Psychology. Ward; Psychology.
3. Principles of Ethics. Green; Prolegomena to Ethics; Wundt; Ethics.
4. Principles of Metaphysics. Ward; Naturalism and Agnosticism.
5. Philosophy of Religion. Caird, E.; Evolution of Religion; Lotze; Philosophy of Religion.

VI. Any one of the following:

1. History of Philosophy from Descartes to Leibniz. Descartes; Method, Meditation and Principles; Spinoza; Ethics; Leibniz; Cartesianism; Locke; Spinoza; Joachim; Ethics of Spinoza; Leibniz; Monadology (with Latta's Introduction).
2. History of Philosophy from Kant to Hegel. Hegel; Logic (Wallace's Translation), and Philosophy of Right (Dyde's Translation); Everett; Fichte's Science of Knowledge. Seth; Hegelianism and Personality, and From Kant to Hegel. McTaggart; Studies in Hegelian Dialectic.
3. History of Philosophy from Hume to Spencer. Comte; Positive Philosophy. Mill (as in Watson's Selections. Spencer; First Principles. Mill; Comte and Positivism; Douglas; John Stuart Mill. Watson; An Outline of Philosophy; Stephen; English Utilitarians.
4. History of Ethics in Great Britain. Selby-Bigge; British Moralists. Douglas; Ethics of Mill. Spencer; Data of Ethics. Green; Progression to Ethics. Sidgwick; History of Ethics, Ch. IV. Watson; Hedonistic Theories Chaps. IV-XI. Selby; Ethics of Naturalism. Courtney; Constructive Ethics. Pt. II. Bk. I. Schurman; Ethical Aspect of Darwinism; Albee; Utilitarianism; Sidgwick; Martineau, Spencer, and Green.

(11.) Undergraduates taking the special course in **Pure and Applied Mathematics** (a) are recommended to take German in their First and Second Years, and Junior Physics in their Second Year; and in the event of their not having done so, they should work up the German in their vacations, and should read the appropriate sections of the elements of Physics (if possible, performing experiments) before entering the Senior Physics Class. In their Third and Fourth Years, they are required to take the four Advanced Mathematics Classes of these years, the two Senior classes in Physics and the class in Mathematical Physics, and three electives. The standard of attainment shown in the Examinations in this Class in both Years will be considered in estimating the results in the final examination of the Special Course.

The subjects of examination will be as follows:—

PURE MATHEMATICS.

Any four of the following:

- (a) Infinitesimal Calculus; (b) Plane and Solid Analytic Geometry; (c) Differential Equations; (d) Modern Algebra (Determinants, Theory of Equations, Quantics, Invariants, Series, Functions of a real variable); (e) Theory of Functions of a complex variable; (f) Projective Geometry

APPLIED MATHEMATICS.

Kinematics and Dynamics of Particles, rigid bodies, flexible strings, elastic solids and fluids,—those portions of these subjects which are treated in the class of Advanced Mathematical Physics or

may be appointed for private reading in the course of the work of that class, the mode of treatment being by application of Analytical Geometry and the Differential and Integral Calculus.

1. MATHEMATICS.—Analytic Geometry, Calculus, and Spherical Trigonometry as in the Second Mathematics Class, and any two of the following subjects of the Advanced Mathematics Classes: (a) Calculus (b) Plane and Solid Analytic Geometry; (c) Differential Equations; (d) Modern Algebra, or Theory of Functions or Projective Geometry.

2 APPLIED MATHEMATICS.—The subjects of the Special Course in Pure and Applied Mathematics.

3. GENERAL PHYSICS.—A systematic general knowledge of all sections of the subject, as e. g. in Watson's Text-book of Physics, (Longmans & Co.) with a more detailed knowledge of special sections illustrating the use of theory in research, such as the kinetic theory of gases, the theory of solutions and of electrolytes, and the wave theory of light.

4. EXPERIMENTAL METHODS.—A general acquaintance with the methods applicable in different classes of investigation, as in Glazebrook and Shaw's Practical Physics (Longmans, Green & Co.) and Oswald's Physico-Chemical Measurements (Macmillan & Co.)—The experimental methods of the following memoirs:—Joule's papers on the determination of the Mechanical Equivalent of Heat, contained in his Scientific Papers (Taylor & Francis), vol. I, pp. 123, 112, 298, 542, 632; Faraday's Experimental Researches in Electricity (Quaestio), vol. I, Series III, iv., v., vi., vii., viii.; Lord Kelvin's papers on the Electro-dynamic Qualities of Metals, in his Mathematical and Physical Papers, Vol. II, (Camb. Univ. Press).—The treatment of observations and the discussion of the accuracy of experimental results, as in Holman's Precision of Measurements (John Wiley & Sons), supplemented by the more purely physical chapters of Merriman's Text-book of Least Squares (J. Wiley & Sons).

(12.) Undergraduates taking the Special Course in **Mathematics and Physics** (ii) should have studied German in their First and Second Years, and Junior Physics in their Second Year. In the event of their not having done so, they should work up the German in their vacations and should read the proper sections of the elements of Physics (if possible, performing experiments), before entering the Senior Physics Class. They are required, if they wish to complete the course, to take in their Third Year Advanced Mathematics, Senior Physics, Practical Physics and Senior Chemistry, and in their Fourth Year, the Advanced Classes in Mathematics, Mathematical Physics and Experimental Physics, and Senior and Practical Physics. But they are advised to take three years rather than two to complete the course. The standard of attainment shown in the examinations in Senior Physics in both Years will be considered in estimating the results of the final examination of the Special Course.

Those who aim at High Honours will be expected either to prepare a thesis embodying the results of a short original investigation, or to exhibit a high standard of excellence in the more mathematical parts of the course.

The subjects of examination will be as follows:—

1. **MATHEMATICS.**—The subjects of the Special Course in Pure and Applied Mathematics § xiii (11), the standard of attainment required not being so high as in the Special Course in Pure and Applied Mathematics.

2. **APPLIED MATHEMATICS.**—The subjects of the Special Course in Pure and Applied Mathematics.

3. **GENERAL PHYSICS.**—A systematic general knowledge of all sections of the subject, as e. g. in Watson's Text-book of Physics, (Longmans & Co.) with a more detailed knowledge of special sections illustrating the use of theory in research, such as the kinetic theory of gases, the theory of solutions and of electrolysis, and the wave theory of light.

4. **EXPERIMENTAL METHODS.**—A general acquaintance with the methods applicable in different classes of investigation, as in Glazebrook and Shaw's Practical Physics (Longmans, Green & Co.), and Ostwald's Physico-Chemical Measurements (Macmillan & Co.)—The experimental methods of the following memoirs:—Joule's papers on the determination of the Mechanical Equivalent of Heat, contained in his Scientific Papers (Taylor & Francis), vol. 1, pp. 123, 172, 228, 542, 622; Faraday's Experimental Researches in Electricity (Quaritch) vol. 1, Series III., pp. 7, vii., viii.; Lord Kelvin's papers on the Electrodynamic Qualities of Metals, in his Mathematical and Physical Papers, Vol. II, (Camb. Univ. Press).—The treatment of observations and the discussion of the accuracy of experimental results, (as in Holman's Precision of Measurements (John Wiley & Sons) supplemented by the more purely physical chapters of Merriman's Text-book of Least Squares (J. Wiley & Sons).

(13.) Undergraduates taking the Special Course in **Chemistry and Chemical Physics** (1) are recommended to select German as one of the subjects of their First and Second Years, and to take Senior Chemistry and Junior Physics in their Second Year. They are required in their Third and Fourth Years to take the following classes:—Second Mathematics, Practical Physics, Advanced Experimental Physics, Advanced Chemistry, two classes in both Senior Physics and Practical Chemistry, and two additional classes not included in the preceding list, selected from the classes prescribed for the Third and Fourth Years (§ vii).

Candidates for High Honours (§ xi) will be expected either to prepare a thesis embodying the results of a short original investigation, or to show special attainments in some branch of laboratory work, as the preparation of organic compounds, or the analysis of iron and steel, of ores, or of water. In estimating the results in the final examination of the Special Course, the standard of attainment shown in the Practical Physics Class and in the Senior Physics and Practical Chemistry Classes of both Third and Fourth Years will be considered.

Candidates will be examined at the end of the Fourth Year in the following subjects:—

CHEMISTRY.

(1.) The principles and theories of modern chemistry. The following books are mentioned to indicate the extent of knowledge required:—*Bredden's Inorganic Chemistry, Advanced Course* (H. Holt & Co.); *Berthollet's Organic Chemistry*, translated by McGowan (Blackie & Son, Van Nostrand); *Meyer's Outlines of Theoretical Chemistry*, translated by Bodson and Williams (Longmans).

(2.) Outlines of the history of chemistry. In this connection candidates will be required to have an acquaintance with the following:—*Tilden's Short History of the Progress of Scientific Chemistry* (Longman's); *Scheele's Rise and Development of Organic Chemistry*, (Macmillan & Co.); *Roscoe's Dalton and the Rise of Modern Chemistry*, (Macmillan & Co.); *Sherrington's Justus von Liebig*, (Macmillan & Co.); and the essays on Boyle, Priestley, Scheele, Cavendish, Lavoisier, Graham and Woehler, in *Thorpe's Essays in Historical Chemistry*, (Macmillan & Co.).

(3.) The following memoirs:—*On the Arsenates, Phosphates and Molybdenates of Phosphoric Acid*, Graham, Philosophical Transactions, 1833; *Ueber das Radical der Benzoesäure*, Liebig and Woehler (Ostwalds Klassiker, No. 22); *Ueber die Constitution der organischen Säuren*, Liebig (Ostwalds Klassiker No. 26.)

(4.) The principles and methods of qualitative analysis and of quantitative analysis, both gravimetric and volumetric, and the practical details of laboratory operations.

(5.) **CHEMICAL PHYSICS.**—Those sections of Physics which have an intimate bearing upon chemical research, viz., the properties of gases and liquids, including the kinetic theory of gases and the theory of solutions, the theory of heat, electrolysis, and the wave theory of light.—Physical experimental methods which are applicable in chemical research, as in Ostwald's *Physico-Chemical Measurements*, (Macmillan & Co.)—The discussion of the degree of accuracy of experimental results, as in *Holman's Precision of Measurements*, (J. Wiley & Sons).

Undergraduates taking the Special Course in **Geology** (2) must take Elementary Geology and Junior Physics in the Second Year, and German during the First Two Years. In the Third Year, candidates are required to take Mineralogy and Advanced and Economic Geology. In the Third and Fourth Years they must pass in addition, in Biology, Second Mathematics, Senior Chemistry, Practical Inorganic Chemistry, and Senior Physics. In the Fourth Year, special lines of study will be taken up with the instructor in the Research Course, equivalent in amount to at least two courses, and involving original field work, reading, and one or more theses. In addition, there will be needed extra reading for the final examinations, along such of the lines mentioned below as are not taken up in classes or conference.

In determining Honours at the end of the special course, weight will be given not only to the final examination,

but to the records of the various courses, and to the maturity of thought and method shown especially during the Four Years' work. Candidates for Honours or High Honours will be expected to carry their studies beyond the limit reached by pass students, and to show a grasp of their work of a high order.

At the end of the Fourth Year, examinations will be held upon the following subjects:—

(1.) A sight translation of a portion of some geological memoir in German, and one in French.

(2.) The History of Geology. Books recommended:—Lyell, *Six C.*—*Principles of Geology*, 11th ed., vol. 1, chapters 7 and 8; *Geologie*, Sir A.—*The Founders of Geology*; Zittel, K. von—*History of Geology and Paleontology*; White, A. D.—*A History of the Warfare of Science with Theology in Christendom*, vol. 1, esp. chapter 5. Some of the original papers read in connection with other topics may be available also for this.

(3.) Advanced structural and dynamical geology, and the geology of Canada, including both reading and field work done in various courses.

(4.) Economic Geology, metallic and non-metallic; including (a) theories of the formation of coal and petroleum, (b) genesis of veins and vein ores, (c) the economic geology of some region studied especially in the course.

(5.) Special topics of the fourth year. This will be in part an oral exposition and defence of a thesis, given at the last anniversary conference of the term.

§ XVIII. Attendance.—Undergraduates and other students who wish their attendance on classes to be recognized as qualifying for a Degree or a Class Certificate, are required to attend the lectures or other meetings of the classes with regularity and punctuality. Professors and Lecturers are instructed to record the presence or absence of students immediately before commencing the work of the class, and to amend the record in the case of those who may enter thereafter, only provided satisfactory reasons are assigned. Irregularity may involve exclusion from the examinations held at the end of the session, and non-recognition of the attendance.

§ XIX. Class Exercises and Examinations.—(1.) Undergraduates and other students who wish their class work to be recognized as qualifying for a Degree, or a Class Certificate, as required to appear at all examinations, and to prepare such exercises, essays, reports, etc., as may be prescribed by the Professors or Lecturers.

In all classes, two examinations are held, one immediately before the Christmas vacation, and the other after the closing of lectures in the Spring. In some classes, other examinations may be held at dates appointed by the Professors. At the

Spring Examinations, questions may be set on any subject treated during the session.

The dates of examinations are arranged so as to enable undergraduates who follow the order of classes recommended in § XVI, to appear at all the examinations of the classes they may be attending. Undergraduates who attend the classes in any other order, and general students who wish to appear at examinations, should select classes with non-coincident examination dates. (See Almanac).

In order that the work done in a class by a student may be recognized as qualifying for a Degree or a Class Certificate, he must secure a position on the Pass List. In the determination of such list, both the standing obtained in the various examinations and the degree of excellence shown in the essays, reports, and other class exercises referred to above are taken into consideration. The names appearing on the Pass List are arranged in order of merit.

(2.) A student who fails to obtain a position on the Pass List in one or more subjects at the end of any Session, shall be allowed a Supplementary Examination in such subjects at the beginning of the next Session of his attendance, on the day appointed for that purpose in the University Almanac; (Sept. 14th, 1903); or he may present himself at the ordinary Christmas and Spring Examinations of such next Session. The fee for a Supplementary Examination, or for appearing as above provided, at the Christmas and Spring Examinations, shall be Two Dollars in each subject, but in the case of students failing in more than two subjects, the maximum fee shall be Five Dollars.

(3.) A student who has failed to appear at the Supplementary or other Examination provided for by (2) may, on application to the Faculty, be granted a Special Supplementary Examination at the beginning of any subsequent Session. But, if in the meantime, the student has attended a more advanced class in the same subject, he will be expected to show greater proficiency than if he had passed the examination at the proper date. The fee for a Special Supplementary Examination shall be Five Dollars per subject, but if the examination includes more than two subjects, the maximum fee shall be Ten Dollars.

(4.) A student who fails either to appear or to pass at a Supplementary Examination shall not be allowed a Special Supplementary Examination in the same Session, except by special permission of the Faculty; and in cases in which such Examination is granted, the fee provided for by (3) must be paid.

(5.) Students wishing to appear as candidates at any Supplementary or Special Examination shall be required to give notice of their intention to the Secretary of the Faculty, at least one week before the date of such Examination. The fee to be remitted with such notice.

(6.) In addition to the ordinary work of the classes required for the attainment of a position in the Pass List, additional work, consisting of private reading, essays, reports, etc., is prescribed for students who aim at Class Distinction (see § xi), special examinations being held in such additional work at the end of the Session. The award of such Distinction is based upon the whole work of the class, the ordinary work as well as the additional, and may be made to any student attending the class, whether undergraduate or general student, provided his attendance has been sufficiently regular.

Class Distinctions are of two grades.—First and Second Class; but candidates who attain a standing considerably above that required for First Class, will be indicated as having made a High First Class. In the Distinction Lists, the names of successful candidates are arranged in alphabetical order in each grade.

No Supplementary Distinction Examinations are granted to unsuccessful candidates.

§ XX. Degrees with Honours.—Degrees with Honours in any one of the departments of study in which Special Courses are provided, will be conferred on undergraduates for special excellence shown at the Examinations in the subjects of such courses.

Successful candidates will be declared to have obtained their degrees With Honours, or With High Honours.

A candidate for Honours may defer his examination in the subjects of his Special Course until a year after he has passed the examinations in the ordinary subjects of the Fourth Year; in which case, however, such candidate shall not be entitled to his Degree until he has passed the examinations of such Special Course.

§ XXI. Degrees with Distinction.—Degrees with Distinction will be conferred on undergraduates for special excellence shown, at Examinations and otherwise, in the work of the ordinary classes recommended to be taken in the Second, Third and Fourth Years of the Course. Such degrees imply greater specialization of subject than the ordinary degree and less than the degree with Honours; but they are intended to involve as much work as the latter.

The award of such degrees is based upon the Class Distinctions (§ xix, (6) gained by candidates; but regard is had, not only to the number and grade of the Distinction gained, but also to the private work required for them, and the relation to one another of the subjects in which they have been gained.

Candidates for such degrees should so select the elective classes of the above years (§ xvi) that the classes thus selected together with required classes of these years, shall form groups of three or four classes in such of the following departments as they may prefer, viz.: (a) Latin; (b) Greek; (c) German; (d) French; (e) English; (f) History and Political Economy; (g) Philosophy; (h) Mathematics and Physics, (i) Chemistry, and (j) Geology. They should aim at the attainment of a good standing in all the classes thus taken, and at a high standing in all the classes of as many of the groups selected as possible.

Distinctions gained in recognized classes of other Faculties of the University are taken into consideration; but not those gained in classes which are not taken as parts of the Course or in recognized classes of other Colleges.

Candidates for such degrees are advised to consult the Faculty at the beginning of the Third and Fourth Years with respect to the selection of classes.

§ XXII.—Classes not Qualifying for a Degree.—From time to time classes are organized for the benefit of persons not wishing to proceed to a degree. Announcements of such classes are made at the beginning of the term.

§ XXIII.—Medals, Prizes, Scholarships, and Bursaries.

(The Senate reserves to itself the right of withholding Medals and Prizes in cases in which sufficient merit is not shown.)

GRADUATE PRIZES.

THE SIR WILLIAM YOUNG GOLD MEDAL, founded by bequest of the late Hon. Sir William Young, will be awarded on graduation to the student who stands first among those taking High Honours in Pure and Applied Mathematics, provided he attain a standard considerably above that required for High Honours.

UNIVERSITY MEDALS will be awarded on graduation to students who take High Honours in other departments than

Mathematics, on the same conditions as the Sir William Young Gold Medal.

THE AVERY PRIZE.—This prize, the interest of \$500, bequeathed for this purpose by the late J. F. Avery, M. D., will be awarded on graduation to the student standing highest among those graduating with Distinction. See § xxi.

The Scholarship offered by Her Majesty's Commissioners for the Exhibition of 1851, which is of the annual value of £150 sterling and tenable for two years, is open to students of this Faculty.

UNDERGRADUATE PRIZES.

NORTH BRITISH SOCIETY BURSARY.—A Bursary of the annual value of \$60, founded by the North British Society of Halifax, is offered for competition at the Examinations of the Second Year's Course in Arts. It is tenable for two years, namely, during the Third and Fourth Years of the Undergraduate Course in Arts. Candidates must be undergraduates who have completed two years of the Curriculum, and must be eligible at the proper age for membership in the North British Society. The next competition will take place in April, 1905.

THE WAVERLEY PRIZE.—This prize, the interest of an endowment of \$1000, will be awarded annually to the student of the Second Year Mathematical Class, who stands highest at the Examinations of the Mathematics of the Year, the winner of the North British Society Bursary being excluded.

ENTRANCE SCHOLARSHIPS AND BURSARY.

(1.) **JUNIOR.**—The following Scholarships and Bursary are offered for competition at the Junior Matriculation Examination in the Faculties of Arts and Science, to students entering the First Year of the Faculties of Arts and Science:

(a) *Two Sir William Young Scholarships*; one, of the value of One Hundred Dollars, and one, of the value of Seventy-Five Dollars, tenable for one year and payable in two instalments.

(b) *Two Professors' Scholarships*, entitling to exemption from fees throughout the entire course, in classes conducted by Professors (not Lecturers) in the Faculties of Arts and Science; provided the scholar make progress satisfactory to the Faculty.

They will be awarded to the three candidates ranking highest at this examination, providing their standing be considered satisfactory by the Faculty. The successful candidates will be allowed to select, in order of their standing, the scholarships which they shall hold. The Mackenzie bursar is not eligible.

(c) *One Mackenzie Bursary*, of the value of Two Hundred Dollars, will be offered annually in accordance with the following condition of bequest: Competitors of the name Mackenzie, Maclean or Fraser, who obtain Distinction, will be given the preference. Should no candidate of the name of Mackenzie, Maclean or Fraser, obtain Distinction, the Bursary will be awarded to the candidate standing highest among those obtaining Distinction.

The Bursary is payable in four annual instalments; and the payment of any instalment is conditional on the bursar's attending the classes required for undergraduates, and making satisfactory progress therein.

(2) **SENIOR.**—The following Scholarships are offered for competition at the Senior Matriculation Examination in the Faculties of Arts and Science, to students entering the Second Year who have not previously attended the classes of the First Year. See § xv.

(a) *Two Professors' Scholarship*, entitling to exemption from fees throughout the entire course, in classes conducted by Professors (not Lecturers) in the Faculties of Arts and Science, provided the scholar make progress satisfactory to the Faculty.

They will be awarded to the candidates ranking highest at this Examination, provided their standing is considered satisfactory by the Faculty.

§ XXIV.—Degree of Master of Arts.—The degree of Master of Arts will be conferred on a Bachelor of Arts of this College, of at least one year's standing and of good character, either on his submitting to the Faculty a satisfactory thesis embodying the results of original research on some literary, philosophical or scientific subject, or on his passing an examination in a course of study, appointed or approved by the Faculty, of at least the extent represented by the academic work of one year of the Arts Course. In the latter case, no fixed courses of study are laid down, the intention being to encourage graduates to prosecute advanced courses of study either at this or at any other College or by private reading, and to adapt the courses to their indi-

vidual tastes and capacities. But no course of study will be approved unless it is confined either to one department of study or to closely related departments.

Thesis must be sent to the Secretary to the Faculty on or before the first of March. Examinations will be held ordinarily at the time of the Spring Examinations; but in special circumstances, they may be held in the Autumn. Candidates must give one month's notice of their intention to appear for examination. Fee to be remitted with notice.

§ XXV.—Fees.—(1.) Fees are payable by students for Registration, (entitling to the use of the Library), for classes attended, and for certain examinations, and for the use of the Gymnasium. They are payable in advance.

No student is entitled to enter a class until he has paid the proper fees.

The following is a statement of the fees payable by students whether undergraduates or general students:

For Registration, payable annually by all students taking more than one class	\$ 5 00
For Registration, payable by students taking only one class	2 00
For each class attended, (not being Practical Classes), per Session	5 00
For Junior or Senior Chemistry, (with laboratory work of not more than four hours a week)	10 00
For Junior or Senior Chemistry (with laboratory work of five or more hours a week)	12 00
For Practical Chemistry Class, ten or more hours a week	14 00
For Practical Physics Class, five hours per week, per Session	8 00
For Practical Physics Class, ten or more hours a week	14 00
For a Supplementary Examination, payable on giving the notice required by § xix. (2), either \$2 00 in each subject, or 5 00	5 00
For a Special Examination, payable on giving the notice required by § xix. (3), either \$5 00 in each subject, or (ix), \$2 00	10 00
For a Special Certificate of Standing	1 00
For M. A. Examination, or report on M. A. Thesis, payable in advance	5 00
For use of Gymnasium by all male students	1 50

The Diploma fees are as follows:

For B. A. Diploma	\$ 5 00
For M. A. Diploma	5 00
For B. A. or M. A. (ad eundem profectum)	10 00

Graduates of this College attending classes are required to pay only the Registration Fee.

All students taking classes in the chemical or physical laboratory are required to make a deposit of Three Dollars on entering the class. This amount, or if charged for breakage have been incurred, what remains of it after such charges have been deducted, is returned to the student at the end of his laboratory course.

small illustrations allowed

M. J. 11-11-11

Faculty of Pure and Applied Science.

COURSE II

THE PRESIDENT (ex officio).

J. LIBERTY, M. A.	L. M. SILVER, B. A., M. B., C. M.
A. MACMURRAY, Ph. D.	S. A. MORTON, M. A.
W. C. MURRAY, M. A.	C. ARCHBOLD, M. E.
E. MACKAY, Ph. D.	H. W. JOHNSTON, M. CH. S. C. E.
D. A. MURRAY, Ph. D.	W. T. KENNEDY, Esq.
R. M. DIXON, M. A., B. A., A. M., L. C. E.	G. J. MILLER, Esq.
J. E. WOODMAN, A. M., S. D.	C. E. PORTER, Esq.
A. W. H. LINDSAY, B. A., M. D.	F. H. TORRINGTON, Esq.
M. MURPHY, D. Sc., C. E.	REV. E. LAING, M. A.
K. GILPIN, JR., LL. D., F. R. S. C.	F. H. MASSIE, F. C. S.
F. W. W. DEANE, C. E.	G. M. CAMPBELL, B. A., M. D.
C. E. W. DODWELL, M. I. C. E.	H. S. POOLE, M. A., F. R. S. C.
M. C. R. C. E.	J. G. H. HUTTON, M. E.
H. McCOLL, M. CH. S. C. E.	ALEXANDER MCKAY, Esq.

Dean of the Faculty: PROFESSOR E. MACKAY.

Secretary of the Faculty: PROFESSOR D. A. MURRAY.

Registrar of the Faculty: PROFESSOR LIBERTY.

Correspondence should be addressed to: The Secretary of the Faculty of Science, Dalhousie College, Halifax, N. S.

§ XXVI.—Courses of Instruction.

I.—MATHEMATICS.

Professor: D. A. MURRAY, Ph. D.

First Mathematics Class.

Daily, 11 A. M.—12 M.

Algebra, Geometry, and Trigonometry, as in the Faculty of Arts (see § XI (xii), p. 17).

Second Mathematics Class.*Daily, 10—11 A. M.*

Analytic Geometry, and Differential and Integral Calculus, as in the Faculty of Arts (see § XI (xii), p. 17).

Advanced Mathematics Classes.

As in the Faculty of Arts (see § XI (xii), p. 18).

II.—PHYSICS

Professor.....STEPHEN M. DIXON, M. A.

Junior (First) Physics Class.

*Mondays, 4—5 P. M.; Tuesdays and Thursdays,
11 A. M.—12 M.*

As in the Faculty of Arts (see § XI (xiii), p. 19).

Students taking courses in Engineering are required to pay special attention to Dynamics and Hydrostatics, and to hand in fortnightly problem papers for correction.

Students who are candidates for the B. Mus. degree are required to attend the ordinary lectures of the class on the properties of Solid and Fluid Bodies and on Heat, as well as the lectures on Sound given to the Senior (Second) Physics Class.

Books of reference.—Taylor, *Sound and Music*; Poynting and Thomson, *Sound*; Bossera, *Sound in Relation to Music*.

Senior (Second) Physics Class.

Mondays and Wednesdays, 10—11 A. M.

As in the Faculty of Arts (see § XI (xiii), p. 19).

Mathematical Physics Class.

Mondays and Wednesdays, 11 A. M.—12 M.

As in the Faculty of Arts (see § XI (xiii), p. 20).

Advanced Experimental Physics Class.

At least once a week.

As in the Faculty of Arts (see § XI (xiii), p. 20).

Practical Physics Classes.

At least five hours a week.

As in the Faculty of Arts (see § XI (xiii), pp. 20, 21).

III.—CHEMISTRY.

(McLeod Professorship.)

Professor.....E. MACKAY, Ph. D.

Junior (First) Chemistry Class.

Mondays, Wednesdays and Fridays, 9—10 A. M.

As in the Faculty of Arts (see § XI (xiv), p. 22).—Every student is required to devote at least three hours a week to laboratory work.

Senior (Second) Chemistry Class.

Tuesdays and Thursdays, 9—10 A. M.

As in the Faculty of Arts (see § XI (xiv), p. 22).—From three to five hours a week must be given to laboratory work.

Students in Mining Engineering are required to take instead of Organic Chemistry additional work in Inorganic Chemistry. The text books recommended for mining students are:—*Bossera's Inorganic Chemistry*, *Advanced Course*; *Newitt's Inorganic Chemistry*, (Longmans & Co.); and *Noyes' Qualitative Chemical Analysis*, (Macmillan & Co.) The additional laboratory work for such students will include a few exercises in Quantitative Analysis.

Advanced Chemistry Class.

One hour a week.

As in the Faculty of Arts (see § XI (xiv), p. 22).

Practical Inorganic Chemistry Class.

At least ten hours a week.

As in the Faculty of Arts (see § XI (xiv), p. 23).

Practical Organic Chemistry Class.

At least ten hours a week.

As in the Faculty of Arts (see § XI (xiv), p. 23).

Advanced Practical Chemistry Class.

As in the Faculty of Arts (see § XI (xiv), p. 23).

CHEMICAL LABORATORY.

The general laboratory accommodates about eighty students, the quantitative laboratory about sixteen. A reference library is placed in the laboratory for students doing advanced work.

Laboratory students are allowed the use of all the more inexpensive reagents. They are required to provide themselves with the more expensive reagents, as alcohol and ether, and they are charged with the value of apparatus they have broken or injured.

All members of practical classes are required to keep a detailed record of their laboratory work. The character of this record is a factor in determining the position of a student in the class lists.

The general laboratory is open to students in science on Mondays and Wednesdays from 3 to 6 p. m. The quantitative laboratory is open daily, except Saturdays, from 9 a. m. to 3 p. m.

IV.—GEOLOGY.

Assistant Professor..... J. EDWARD WOODMAN, A. M., S. D.

Elementary General Geology.

Lectures, laboratory and field work, reports, and collateral reading. Tu. and Th., 12.00—1.00; laboratory, Tu. and Th., 3.00—5.00; field work on Saturdays (morning or whole days) throughout the fall, and thereafter when practicable.

As in the Faculty of Arts (§ XI (XV), p. 24).

Advanced General Geology.

Lectures, field, laboratory and library work. Monday, Wednesday and Friday, 9.00—10.00; field work one day or two half-days per week, during the fall; library work throughout the winter, with conferences.

As in the Faculty of Arts (§ XI (XV), p. 25).

Economic Geology.

Lectures, library and field work. Monday, Wednesday and Friday, 11.00—12.00. Field and library work by appointment.

As in the Faculty of Arts (§ XI (XV), p. 26).

Geology—Research Course.

As in the Faculty of Arts (§ XI (XV), p. 26).

V.—MINERALOGY.

Assistant Professor..... J. E. WOODMAN, S. D.

Elementary Mineralogy.

Lectures and laboratory work, Tuesday and Thursday, 9.00—10.00; laboratory, Monday, Wednesday (and occasionally Friday), 3.00—5.00.

As in the Faculty of Arts (§ XI (XVI), p. 26).

VI.—BOTANY.

Lecturer..... J. EDWARD WOODMAN, S. D.

Two hours a week.

The course in Botany will have special reference to the following subjects: Protoplasm and Plant-cells, the Tissue and Tissue Systems of Plants, Morphology of the Plant-body, Plant Physiology, the Principles of Classification and the Laws of Distribution, the Protophyta (Schizophyceae, the Phycophyta (Chlorophyceae and Rhodophyceae), the Carpophyta (Rhodophyceae, Ascogonyceae and Basidiomycetes especially), the Bryophyta (Mosses and Liverworts), the Psaridophyta (Ferns, Horsetails and Clubmosses), the Anthophyta (especially the Coniferae, Graminae, Orchidaceae, Liliaceae, Urticaceae, Labiateae, Compositae, Umbelliferae, Rosaceae, Cruciferae, Leguminosae, Ranunculaceae). The Morphology and life history (the anatomy, histology and development) of at least two common or representative species of each group of plants above named, in minute detail.

General attention will be given to the native flora of the Province, with special notice of foreign as well as native species of interest from economic, medicinal or injurious properties.

The preliminary study of Botany as indicated in Grade IX of the Public School Course, and especially the formation of a local collection of plants, even if unsorted and unclassified, will be an advantage to any student entering upon the course.

Practical instruction will be given in the collecting, drying and mounting of specimens, the use of the microscope, the preparing of microscopic sections, and the general dissection of plants. The use in class of a number of microscopes will be granted the students under the care and direction of the Lecturer; but a hand lens, glass slides, cover glasses, scalpels and other apparatus or books necessary for each student, should be supplied by each for himself. Collections, notes, class-work and drawings of students will be estimated for incorporation into final class standing.

Students in Science are required, in addition, during the summer vacation to study practically the flora or a section of the flora of some district, to present a collection of the said flora properly classified and mounted, and to pass an oral and practical examination on the same at the beginning of their next session.

Manuals for the practical work prescribed for the summer will be recommended by the Lecturer.

VII.—ZOOLOGY.

Lecturer.....

Two hours a week.

The work of this class will consist of a course of lectures supplemented by practical work.

The following subjects will be treated in the lectures:—Organic and Inorganic bodies. Life, Vital Action, etc. Differences between plants and animals. Morphology. Physiology. Differences between Animals. Specialization of Function. Morphological Type. Von Baer's Law of Development. Origin of Species. Homology. Analogy. Reproduction. Distribution in time and space. Evolution. Classifica-

tion. Also the general characters of the several sub-kingdoms will be treated of as fully as possible.

The practical part of the course will consist of dissections by students themselves, and demonstrations, microscopic, etc.

The object of the class will be to give such a comprehensive idea of the Animal Kingdom, as will form a good basis for further prosecution of the study of Biology or Comparative Anatomy and Physiology.

Text-Books: Parker and Haswell's *Students' Manual*; *Books of Reference:* Huxley's *Anatomy of Vertebrates and Invertebrates*, 2 vols.; *Class and Biological Text-book of Zoology*, 2 vols.; also Parker and Haswell's *text-book*, 2 vols.

VIII.—ANATOMY.

The University provides no instruction in this subject, but the Junior or the Senior Anatomy Class and the Practical Anatomy Class, conducted in the Halifax Medical College by Professor A. W. H. Lindsay, M. D., are recognized as qualifying for a degree. The Junior Anatomy Class meets on Mondays, Wednesdays and Fridays at 12-1 P. M. The Senior Class meets on Tuesdays and Thursdays at 12-1 P. M., and Saturdays at 10-11 A. M. The fee for each of these classes is \$15.00. The Practical Anatomy Class meets daily (Saturdays excepted), at 3.30-5.30 P. M.; fee, \$15.00.

Undergraduates who have taken the Practical Anatomy Class as part of their course are required to produce evidence of having, during their attendance on such class, carefully dissected at least three "parts" of the body.

Undergraduates who have taken the above classes as part of their course are required either to present certificates of having passed the examinations conducted by the Faculty of Medicine, or to pass before the examiner of this Faculty a written examination in the subjects of the Junior or Senior Anatomy Class, and an oral or practical examination on such "parts" of the body as they may have dissected. In the latter case an examination fee of \$3.00 is payable, which covers both written and oral examination.

IX.—HISTOLOGY.

The University provides no instruction in this subject, but the class conducted by Professor G. M. Campbell, B. A., M. D., and H. D. Weaver, M. D., in the Halifax Medical College, is recognized as qualifying for a degree. The class meets on Mondays, Wednesdays and Fridays, at 11 A. M.—12 M. The fee for the course is \$15.00.

Undergraduates who have taken this class as part of their course are required either to present a certificate of having passed the examination of the Faculty of Medicine or to pass an examination conducted by the Examiner of this Faculty. In the latter case a fee of \$3.00 is to be paid to the Examiner.

X.—PHYSIOLOGY.

The University provides no instruction in this subject, but the class conducted in the Halifax Medical College by Professor L. M. Silver, M. B., is recognized as qualifying for a degree. The class meets on Tuesdays, Thursdays and Saturdays, at 11 A. M.—12 M. The fee for the course is \$15.00.

The regulations as to examinations are the same as in the case of Histology, the fee payable being \$3.00.

XI.—APPLIED MECHANICS.

Lecturer STEPHEN M. DIXON, M. A., A. M. I. C. E.

Tuesdays and Thursdays, 10—11 A. M.

The object of this class is to study the practical application of Dynamics to the various branches of Engineering. The series of lectures will form a two year's course, so arranged that students may enter the class at the beginning of either year. The subjects studied will be as follows:

In 1903-04. *Résumé of the Principles of Dynamics*.—The Mechanics of Machinery, including (a) Kinematics; relative velocities and accelerations; velocity and acceleration diagrams; link-work, wheel-teeth, belts, cams, the screw, cyclic mechanisms, level and skew gearing, parallel motions, etc. (b) Dynamics; equilibrium of mechanisms, force and work diagrams, inertia of moving parts, fly-wheels, governors, friction, brakes. During the year students will be required to make dimension sketches of details of machines, and also make a complete design of some machine.

Books of reference: Kennedy, *Mechanics of Machinery*; Cotterill, *Applied Mechanics* (Macmillan & Co.); Unwin, *Mechanical Drawing*; Lew and Bovey, *Machine Drawing and Design* (Longmans).

In 1904-05. *Résumé of the Principles of Statics*; The Theory of Structures, including the determination of stresses in framed structures, investigation of shearing forces and bending moments, discussion of strength of materials, and design of individual members of various trusses. A short course in Graphic Statics is given, and students are required to work out detailed design of a wood or steel truss.

Books of reference: Cotterill, *Applied Mechanics*; Alexander and Thomson, *Elementary Applied Mechanics*; Bausknecht, *Elements of Statics* (Macmillan & Co.); Loran, *Applied Mechanics*; Bovey, *Theory of Structures* (J. Wiley & Son).

Students will be expected to acquire considerable power in solving problems, and to read privately specified portions of books of reference on subjects not fully discussed in class.

XII.—DESCRIPTIVE GEOMETRY.

Lecturer S. A. MONTROE, M. A.

This course of lectures will include the following subjects: Plane Geometry; construction of scales, construction and areas of plane figures, properties and construction of curves. Solid Geometry; problems on the straight line and plane, projection of lines, planes and solids, simple intersections of planes and solids, easy examples of projection of shadows.

Books recommended: Angeli's *Practical Plane Geometry and Projection*, Milne's *Descriptive Geometry*, Spanton's *Science and Art Drawing*.

XIII.—DRAWING.

The following classes of the Victoria School of Art and Design are recognized as qualifying for a degree. The work of a class may be completed in two years of one hundred hours each. Students of Engineering are required to take either the class in Mechanical or that in Architectural Drawing. Students preparing for the teaching of

science in schools should select the class in Free-hand Drawing and Modelling.

Information as to fees, etc., may be obtained on application to Mr. Alex. McKay, Secretary of the Victoria School of Art and Design, Halifax.

Mechanical Drawing.

FIRST YEAR.—Plane Geometry and Solids. Lettering—Descriptive Geometry. Projection of Lines, Planes and Solids. Sections by Planes. Developments. Penetrations. Exercises in Projections. Cutting Planes. Exercises on finding Curves by passing a plane through Curved Surfaces.

SECOND YEAR.—Righted Joints. Single and Double Lap joints. Butt-joints. Connection of Parallel Plates etc. Gearing. Double and single Curved Work. The Involute. The Cycloid. The Epicycloid. Construction of Spur-wheel and Pinion. Projection of Gear-wheels. Bevel-gearing. Isometric Projection. Machine Design.

Architectural Drawing.

FIRST YEAR.—As for the First Year of the Class in Mechanical Drawing.

SECOND YEAR.—Styles of Architecture. Perspective as applied to Architectural or Engineering design. Moulding. Bonds of brickwork and stone. Details of construction in stone, brick, wood and iron. The framing of timbers. Fire-proof construction and strength of materials. Preparation of specifications.

Free-hand Drawing and Modelling.

Free-hand Drawing. Geometrical Drawing. Shaded Drawing from the Round. Modelling in clay. Principles and practice of Decorative Design and elements of Perspective.

XIV.—SURVEYING.

Lecturers..... J. R. McColl, M. Can. Soc. C. E.
H. W. Jounston, M. Can. Soc. C. E.

The course is intended to give the student a practical training in the methods of land surveying, and in the field work of engineering operations, and is divided as follows:

Junior Class.

Twice a week for first half-year.

Chain and Angular Surveying. The construction, use and adjustments of various instruments. Topography, Levelling and Contour Survey. Plotting.

Senior Class.

Twice a week for second half-year.

Preliminary and Location Surveys of a railway. Construction Survey, including curves, setting-out work and calculation of quantities. Hydrographic Surveying and Mining Surveying.

The field work will consist of:—(1) A Chain Survey. (2) A Chain and Compass Survey. (3) A Triangulation Survey with sextant. (4) A Contour Survey. (5) A Survey with transit and chain. (6) A Survey

and location of a line of road with topography and custom and staking-out for construction. (7) A Hydrographic Survey. (8) An Underground Survey or one at night to illustrate underground methods.

Students are required to keep complete notes and from them to prepare all plans, drawings, etc., of the work.

XV.—CIVIL ENGINEERING.*

Lecturer..... M. Murray, D. Sc. C. E.

Once a fortnight.

The subjects treated will be:—Materials and Constructions. Earth-work. Masonry. Carpentry. Structures of timber, stone and iron. The Construction of Canals, Roads, Railways, Bridges, Water Supply for Towns. Reclamation of land from the sea.

Such works as are named above are generally in operation in Nova Scotia, under the supervision of the Provincial Engineer, and advanced students in the Engineering Class will be afforded an opportunity of examining them under construction.

XVI.—HYDRAULIC ENGINEERING.*

Lecturer..... C. E. W. Bodwell, B. A., M. I. C. E.

Once a week.

The subjects treated will be as follows:

Flow of water through orifices and short tubes, and in pipes and open channels.

Water supply to cities and towns. Quantity and quality necessary. Rainfall, watershed, springs, wells, lakes and rivers. Storage of water in natural and artificial reservoirs. Measuring weirs and steam gauging. Filtration and other methods of treating impure waters. Construction of dams of stone, earth and timber. Details of construction of a town supply. Mains and distribution pipes, thickness, weight, strength, methods of moulding, preserving and laying. Valves, hydrants, etc. Pumping engines.

Turbines and water-wheels.

River improvements.

XVII.—MUNICIPAL ENGINEERING.*

Lecturer..... F. W. W. Doane, C. E.

Once a fortnight.

The subjects treated will be:—Street-laying out, opening, formation, sidewalks, paving, cleaning, sprinkling, street railways, obstructions, etc.; works of sewerage (separate and combined)—races, materials, foundations, sectional form, course, ventilation, flushing, subsoil, drainage, intercepting sewers, tidal sewers, sewage disposal, etc.; house drainage and plumbing, roof water disposal, cesspits, disposal of garbage, etc.; water supply, plumbing—service pipes, stopcocks, effect and prevention of waste, etc.

* If in any year there should not be a sufficient number of students to form a class in this subject, the lectures will not be given, but the student will pursue a course of reading under the supervision of the Lecturer.

XVIII—METALLURGY.

Assistant Professor
 Lecturer F. H. MARON, F. C. S.

Assaying.

This course consists chiefly of laboratory work. The following subjects are treated:—Fuel, proximate analysis of coal and coke, including determination of sulphur and evaporating power. Gold and silver; Urucible and scorification assays of ores, mattes, concentrates and residues; amalgamation assays of free-milling ores; assays of bullion and base bullion. Other metals: Determination of iron, manganese, copper and lead in their ores.

General Metallurgy.

The work of the Class covers the general ground of Metallurgy and affords an introduction to the Advanced Metallurgy Class. It is designed to give a knowledge of the materials, appliances, operations and products, as well as of the chemical and physical principles involved in metallurgical processes.

Advanced Metallurgy.

The details of the metallurgy of iron and steel, lead and minor metals will be studied.

The laboratory work will include chlorination and cyanide tests of gold ores and concentrates; determination of iron, manganese, phosphorus, sulphur, silicon and titanium in iron and its ores; determination of total and graphitic carbon in iron and steel; assays of arsenic, antimony, chromium, nickel and cobalt ores; complete analysis of ores, slags and refractory material; ultimate coal analysis.

XIX—MINING.

Assistant Professor
 Lecturers
 { H. S. POOLE, M. A., F. G. S., F. R. S. C.
 { E. GILPIN, JR., A. M., LL. D., F. R. S. C.
 { C. ARCEBUTH, M. E.
 { J. G. S. HUDSON, M. E.

General Mining.

Metal and coal mining; exploitation; mining plant. The subjects treated include surface and underground excavation and hydraulic mining, timbering, drilling, haulage above and below ground, hoisting, pumping, drainage and ventilation; use of various kinds of power in mining.

Ore-Dressing and Milling.

The topics will include the dressing and concentration of iron, lead, zinc and copper ores, the stamp milling, amalgamation and concentration of gold and silver ores, and the designing and construction of mining plants.

Advanced Coal Mining.

Lectures, reading, written reports and excursions.

Among the subjects treated in the lectures will be:—Preliminary exploration; shaft-sinking and sinking; systems of underground working; timbering; coal mining machinery; explosives; transmission of power; winding, haulage, pumping, lighting, ventilation; machines

connected with these operations; preparation of coal for market; coal-sine surveying.

Advanced Gold Mining.

Lectures, reading, conferences and excursions.

Preliminary exploration of gold properties. Location of openings with reference to structure, situation of pay streaks, topography, drainage power. Special methods of mining adapted to Nova Scotian fields. Power-plant; water, steam and electric transmission. Milling machinery and special adaptations of mills and concentrators to local conditions. Plans, adaptations and contracts for the economical development of gold properties. Capitalization, business management and policies.

Field-Work in Mining Operations.

This work is required of undergraduates during the Summer Session at the end of their Third Year.

Members of the class will visit and study the economic conditions and operations of mining districts in various parts of the Province, covering coal, gold, iron, and some of the minor classes of economic deposits. In this connection the methods of mining, milling, and metallurgical treatment will be considered; and special attention will be paid to constructive criticism of mining and milling practice.

Each student is required to hand in to the Professor of Mining, on or before October 15th in his Fourth Year, a detailed written report of the summer's studies in mining, together with his field note-books.

Seminar Conference.

Fourth year students in Mining and Metallurgy are required to meet the instructors in Mining, Metallurgy and Geology, and occasionally the other members of the Faculty of Mining, at regular, stated intervals, for discussion and guidance in the work of the graduation Thesis, and for any other matters that may properly be placed in such conference.

XX—MINING LAW.

Lecturer B. RUSSELL, M. A., D. C. L., S. C., M. P.

Subjects of lectures:—

Mining covenants. Forfeiture of leases. License to search. Injunctions. Liability of owners for negligence of miners, etc. Revised Statutes of Nova Scotia, Chapters 18, 19 and 20.

XXI—MENTAL SCIENCE.

Professor WALTER C. MURRAY, M. A.

The class in Mental Science is that known in the Arts Faculty as Junior Philosophy (§ xi (x), p. 15).

The aim of the course in Logic is chiefly disciplinary. In the Psychological course experiments will be introduced as much as possible, not merely for purposes of illustration but also to supply data for inductions of psychological laws. Special attention will be given to the relation of Psychology to Educational methods.

Text-books: *Logic*: Copthorne; *Introductory Logic*: Titchener; *Principles of Psychology*: James; *Psychology* (Oxford Course). Recommended for students in Education: *Sully*; *Teacher's Handbook of Psychology*; *Morgan*; *Psychology for Teachers*; *James*; *Tait's on Psychology*.

XXII—EDUCATION.

—Science of Education—

Lecturer.....Prof. W. C. MURRAY, M. A.

Two hours a week.

This Class consists of 180 courses of lectures. In one course the development of Educational Theory in England from Aachen to Thring will be traced. Concurrently with this the psychological basis of education will be studied. James' *Talks to Teachers* will be followed at first; afterwards the mental development of the child will be traced from infancy to maturity.

Books recommended: Aachen: *The Schoolmaster*; Milton: *Treatise on Education*; Locke: *Thoughts on Education*; Spencer: *Education*; Mill: *Jaquesville of St. Andrews*; Thring: *Theory and Practice of Teaching*; Ferrar: *Essays on Liberal Education*; Mason: *Life of Milton*; Fiske: *The Quick*; Educational Reformers; Parkin: *Life of Thring*; Mack: *Educational Theories in England*; Lounsbury: *Individes of Education*; James: *Talks to Teachers*; Fitch: *Lectures on Teaching*; Chamberlain: *The Child*; Starbuck: *Psychology of Religion*.

—History of Education and Practice.

This Class consists of three parts. Principal Miller lectures on the History of Education; Principal Kennedy on School Management, and Supervisor A. McKay conducts the course in the Practice of Teaching.

(1) HISTORY OF EDUCATION.

Lecturer.....PRINCIPAL G. J. MILLER.

One hour a week.

[This course will be given every other session.]

The course consists of lectures and recitations on: The History of Education in different ages and countries; Comparison of Education Systems; Theories of Writers on Education; Eminent Educators.

Books recommended: Williams: *History of Modern Education*; Quick: *Educational Reformers*; Browning: *Educational Theories*; Painter: *History of Education*.

(2) SCHOOL MANAGEMENT.

Lecturer.....PRINCIPAL W. T. KENNEDY.

[This course will be given when the Course in History is given.]

Six or eight lectures will be given on the principles of School Management and the School Law of Nova Scotia.

Useful Books: Fitch's *Lectures on Teaching*; McMoray's *General Method*; Ballwin's *School Management*; School Law of Nova Scotia, 1902.

This class will not be given in 1903 unless five or more students desire it.

(3) PRACTICE OF TEACHING.

Lecturer.....ALEXANDER MCKAY.

The work of this course will consist of observations of the practice of successful teachers, practice in teaching, and discussions conducted by Supervisor McKay on points raised in the course of the observation and practical experience of the class.

Members of the class who pass satisfactory examinations on the subjects studied, and are favourably reported upon by Mr. McKay, the supervisor of their practical work, will be granted certificates showing the standard of excellence attained and the time spent in practice.

Students who take this class as part of their course for the degree of B. Sc. (B.Sc.) will be required to spend 150 hours in practical work (including actual teaching and observation of teaching) under supervision approved by the Faculty. Those who take the class as part of the course for the Diploma of Liberate in Education (D.L.E.) will be required to spend 200 hours in practical work.

XXIII—THEORY AND HISTORY OF MUSIC.

The classes in the Theory of Music, conducted in the Halifax Conservatory of Music by Mr. Percy Gordon, Director, and other members of the staff, and those in the History of Music, conducted by Rev. E. Laing, M. A., are recognized as qualifying for the degree of Bachelor of Music. In the Theory the course extends over three years; in the History, over two. Information as to details of subjects studied in the classes, fees, text-books, etc., may be obtained on application to the Director of the Conservatory.

XIV—ENGLISH.

Professor.....ARCHIBALD MACMILLAN, Ph. D.

As in the Arts Faculty (§ XI, (vi), pp. 9-11).

XV—FRENCH AND GERMAN.

Professor.....J. LUCHT, M. A.

As in the Arts Faculty (§ XI (vi), pp. 7-9).

THESIS.

A Thesis forms part of the Fourth Year work of the prescribed course for undergraduates in mining. For students specializing in mining the Thesis shall consist of the study of a selected mining property and shall include (a) a study of the structural and economic geology of the district; (b) a study of the methods best adapted to mining and milling under ordinary commercial conditions; (c) design of plans and drawing up of specifications for the mining and milling plant; (d) plans for the management of the property, including capitalization, expenditure, receipts, removal of depreciated parts of equipment, etc. For students working on problems connected with coal the arrangement of the Thesis will of necessity be somewhat different. For students specializing in metallurgy, the Thesis shall consist of a study of some selected mining district with reference to (a) its structural and economic geology; (b) general methods of mining; (c) methods of milling in detail; (d) detailed metallurgical treatment

of the ores and comparison with those of other localities; (c) design of plants and drawing up of specifications for plant for milling and metallurgical treatment of the ores in a commercial way, and for continuously operating the same.

The work for the Thesis is interwoven with the ordinary classes of the Fourth Year and some of the field, laboratory and library work of these classes will bear directly upon it. The beginning of the study can best be made during the summer vacation between the Third and Fourth Years, at the close of the regular Summer Session. In this way all, or nearly all, the field work can be done under advantageous conditions. Professions connected with the Thesis will be discussed in regular conferences with the instructors concerned (page 61).

The Thesis must be given in to the Dean of the Faculty of Science on or before March 31st.

§ XXVII.—The Academic Year consists of two Sessions, a Winter Session which begins in the second week of September and ends in the last week of April, and a Summer Session, beginning early in May and ending about the middle of June. Attendance at the Summer Session is only required of students in Mining. The Winter Session of 1903-04 will begin on Tuesday, September 8th, 1903, and end on Tuesday, April 26th, 1904. The Summer Session of 1904 will begin on Monday, May 2nd, and end on Friday, June 10th, 1904.

§ XXVIII.—Admission of Students.—The regulations for the admission of students to the classes of this Faculty are the same as in the Faculty of Arts (§ 1, p. 1.)

§ XXIX.—Degrees.—(1.) The degrees conferred in the Faculty of Science are:—Bachelor of Science (B. Sc.), Bachelor of Engineering (B. E.), Bachelor of Music (B. Mus.) and Master of Science (M. Sc.). Candidates for the baccalaureate degrees must attend with regularity and punctuality the classes of their courses of study as prescribed in §§ XXX, XXXVII and XL, prepare the exercises, reports, etc., required, and appear at the examinations held, in such classes, and secure a position on the Pass Lists in all subjects. The courses of study for B. Sc. and B. E. extend over four years, that for B. Mus. over three years; but in the case of students who enter at advanced stages, they may be completed in a shorter time.

(2.) Persons may become candidates for degrees by passing the Junior or Senior Matriculation Examination. Those who pass the Senior Matriculation Examination are exempted from attending the First or Junior Classes in Mathematics, Chemistry or Botany, English, French and German, or in such of these subjects as have been included in their examina-

tion. In general, the Matriculation Examination is to be passed by a student before he enters upon a course of study leading to a degree.

(3.) General students who have attended some of the classes in any course of study and passed in the subjects of them, may become candidates for a degree in such course by passing one of the Matriculation Examinations, in which case the classes previously attended shall be recognized as qualifying for a degree. But in those subjects of the Matriculation Examination in which they have previously attended classes, such students shall be expected to show a higher proficiency than if they had passed the examination at the beginning of their course.

(4.) Undergraduates or graduates in other Faculties of the University may be admitted to advanced standing in the course for any degree in this Faculty, provided that their previous courses have included some of the classes in the prescribed course for that degree, and that their attendance in such classes and the standing attained in them, satisfy the requirements of such prescribed course.

Undergraduates or graduates of other institutions, approved by the Senate, may be admitted to such advanced standing in the course for any degree in this Faculty as their previous courses warrant.

Persons seeking admission to advanced standing must make written application to the Dean of the Faculty of Science. In the case of undergraduates or graduates of other institutions, applicants must submit (a) a complete record of their college work, showing grades attained, duly certified by the college authorities; (b) a similar record of their Matriculation Examination, or a statement of the certificates accepted instead of the examination; (c) a calendar or calendars of the institution from which they come of such date as to show the courses they have followed.

Applications for admission to advanced standing are considered on their individual merits.

§ XXX.—Matriculation Examinations.—(1.) Candidates for a degree are required to give satisfactory evidence of preliminary general education either by passing a Matriculation Examination or by presenting certificates covering the work required for the examination.

For admission to the First Year of any of the courses

leading to a degree in this Faculty, the subjects of the examination are:—(a) Arithmetic and Algebra, (b) Geometry, (c) English, (d) History and Geography, (e) and (f) any two of the following languages:—Latin, Greek, French, German. Candidates for the ordinary B. E. degree are exempt from examination in (e) and (f). Candidates for the B. E. degree with Distinction are required to take French and German. The requirements in these subjects are the same as for the Junior Matriculation Examination of the Faculty of Arts, and the regulations as to distinction, exemptions, dates, etc., are the same as in that Faculty. (See § XIV, pp. 28-30.)

(2) The subjects of the Senior Matriculation Examination are:—(a) Mathematics, (b) Chemistry or Botany, (c) English, (d) French, (e) German. Candidates in Chemistry are required to satisfy the examiner that the laboratory work they have done is the equivalent of that in the First or Junior Chemistry Class. The other requirements in the subjects of examination, as well as the regulations as to exemptions, dates, etc., are the same as for the Senior Matriculation Examination of the Faculty of Arts. (See § XV, pp. 30-33.)

§ XXXI.—Courses of Study for Degree of B. Sc.—(1.) Two courses lead to the degree of Bachelor of Science. Course A is intended for those who wish a course in science and modern languages similar to that leading to the degree of Bachelor of Arts. Course B, though not a technical course, is intended for those who aim at becoming engineers.

(2) **COURSE A** consists of the following classes:—Three in English; three in German; two in French; two in Mathematics or Chemistry; one in Mental Science or Biology (Botany and Zoology) or Geology or Mineralogy; one in each of the following:—Freehand Drawing (at least 100 hours), Mathematics, Physics, Chemistry; and seven single classes,* or their equivalents, to be selected, subject to the approval of the Faculty, from the list of subjects given below under classes for Third and Fourth Years.†

* A "single" class is one in which two or three lectures a week are given, a "double" class, one in which the number of lectures is four or five a week. One double class is regarded as equivalent to two single classes.

† Students who have registered as undergraduates in Medicine may complete their course in Medicine in three years instead of four by taking the following four classes in addition to the Junior Chemistry and Junior Physics required in the First and Second Years:—Botany, Zoology, Junior Anatomy, Practical Anatomy. Such students are recommended to take the class in Histology also, to avoid conflict of hours in the time-table, see Faculty of Medicine.

The following arrangement in years indicates the order in which, as a rule, these classes may be most conveniently taken:

First Year.			
1. First Mathematics.	4. German.		
2. Junior Chemistry.	5. French.		
3. First English.	6. Freehand Drawing (to be completed before the end of the Second Year).		

Second Year.			
1. Second Mathematics or Senior Chemistry.	4. German.		
2. Junior Physics.	5. French.		
3. Second English.	6. Freehand Drawing (completing at least 100 hours).		

Third and Fourth Years.			
1. English.			
2. German.			
3. Mental Science or Biology (Botany and Zoology) or Geology or Mineralogy.			
4-10. Seven classes from the following subjects:			

Mathematics.	Histology.
Physics.	Anatomy.
Chemistry.	Political Economy.
Geology.	Philosophy.
Mineralogy.	Education.
Biology (Botany and Zoology).	English.
Physiology.	French.
	German.

(3) **COURSE B** consists of six classes in each of the first two years, nine classes in the Third and Fourth Years, and, in addition, one group of classes to be chosen from certain elective groups specified below. The classes, arranged in years, are the following:

First Year.			
1. First Mathematics.	4. German.		
2. Senior Chemistry.	5. French.		
3. First English.	6. Mechanical Drawing (at least 100 hours).		

Second Year.			
1. Second Mathematics.	4. Second English.		
2. Junior Physics.	5. French and German.		
3. Senior Chemistry.	6. Mechanical or Architectural Drawing.		
	Descriptive Geometry.		

Third and Fourth Years.

- 1—2. Two classes in Senior Physics.
3. Practical Physics.
- 4—5. Two classes in Applied Mechanics.
- 6—7. Two classes in Surveying.
8. Hydraulic Engineering.
9. French or German.
- 10—12. One of the following groups:—
 - (a) For Civil Engineering: Mineralogy and Geology, Municipal Engineering, Civil Engineering.
 - (b) For Electrical Engineering: Practical Physics, Advanced Experimental Physics, Practical Inorganic Chemistry.

§ XXXII.—**Special Courses for Degree of B.Sc.**—An undergraduate shall be allowed after completing the work recommended in § XXXI for the first two years of his B. Sc. course, to restrict his attention to a more limited range of subjects than that of the ordinary course, provided his standing at the examinations of the first and second years, especially in the subjects corresponding to the Special Course on which he proposes to enter, seems to the Faculty to warrant such restriction.

Special Courses are provided in the following departments: (a) Pure and Applied Mathematics, (b) Mathematics and Physics, (c) Chemistry and Chemical Physics, (d) Geology.

The subjects of these courses and the regulations regarding them are the same as in the corresponding courses in the Faculty of Arts. (See § XVII, pp. 36 and 40-44.)

§ XXXIII.—**The Degree of B. Sc. with Honours** in departments in which special courses are provided in this Faculty, shall be conferred on the same conditions as the corresponding degree in the Faculty of Arts (§ XX, p. 46).

§ XXXIV.—**The Degree of B. Sc. with Distinction** shall be conferred on the same conditions as the corresponding degree in the Faculty of Arts (§ XXI, pp. 46-47).

§ XXXV.—**Medals, Prizes, and Matriculation Scholarships.**—The Sir William Young Gold Medal, the University Medals, the Avery Prize, the Waverley Prize, and the Sir William Young and Professors' Scholar-

ships and Mackenzie Bursary (awarded at matriculation) are open for competition to undergraduates of, or candidates for matriculation in, the B. Sc. courses of this Faculty. (See § XXIII, pp. 47-49.)

§ XXXVI.—**1851 Exhibition Science Research Scholarship.**—Her Majesty's Commissioners for the Exhibition of 1851 have, for some years, offered Scholarships in certain universities of the United Kingdom and the Colonies, with the intention of enabling students of science who have indicated high promise of capacity for original research to continue the prosecution of science with the view of aiding in its advance or in its industrial applications. In 1894, 1896, 1898, 1900, and 1902, they placed the nomination to one of these Scholarships at the disposal of this University, and it is expected that a similar nomination will be placed at the disposal of the University for the year 1904.

These Scholarships are of the annual value of one hundred and fifty pounds sterling, are tenable for two years, subject to the fulfilment of certain conditions mentioned below, or, by special resolution of the Commissioners, for three years, and are open to women as well as men.

The following were the conditions of nomination in 1902:

- (a) The nominee must be a British subject.
- (b) He (or she) must, at the date of the nomination, have been for a term of three years, a bona fide student of Science in a University or College (or in Universities or Colleges) in which special attention is given to scientific study,—a graduate who has continued his studies at a College after graduation being regarded as a student.
- (c) He must have been a student of Dalhousie College either during the academic year at the end of which the nomination is made, or during the previous year; but in the event of his having ceased to be a student of Dalhousie College at the end of the previous year, he must have been engaged during the year of nomination solely in scientific study.
- (d) He must have indicated high promise of capacity for advancing Science or its applications by original research. Evidence of capacity for original research in Science is strictly required, this being one of the main qualifications for a scholarship; and the nominee will be selected from the students qualified for nomination mainly on the ground of superiority in this respect, though the general proficiency attained in the study of Science, special knowledge of departments of Science closely related to that to which the candidate intends to devote himself, and knowledge of such subjects as French and German, which are useful in the prosecution of research, will also be taken into account.

(e) There is no absolute restriction as to age; but a nominee whose age exceeds 30 will only be accepted by the Commissioners under very special circumstances.

The nomination which is to be made by this University to the Commissioners in London, will be referred by them to a committee of eminent scientific men, who will advise them upon it; and the nomination will take effect on its being confirmed by the Commissioners.

The scholarship may be held at any University in the United Kingdom or abroad, or in any other institution to be approved by the Commissioners, the only restriction being that the institution selected shall be properly equipped for the prosecution of Science. But a scholar will be required, in the absence of special circumstances, to proceed to an institution other than that by which he is nominated.

The scholar, during his tenure of the Scholarship, must devote himself wholly to study and research, more especially in some branch of Science, such as Physics, Mechanics, or Chemistry, the extension of which is especially important to our national industries; and he is not allowed during such tenure to hold any position of emolument.

The continuance of the Scholarship for the second year is dependent on the work done in the first year being satisfactory to the Scientific Committee appointed by the Commissioners.

Only one-fourth, at most, of the Scholarships granted in any one year, are renewed for a third year, the renewals being awarded to the most deserving of the candidates.

The conditions for the exceptional renewal of Scholarships for a third year are as follows:—

(1) The scholar shall have published as the proceedings of some Scientific Society, or in some Scientific Journal, an account, approved by the Scientific Committee, of an adequate research.

(2) The scholar shall satisfy the Committee:—

That a continuance of the Scholarship for a third year is likely to result in work of scientific importance.

That such work is not likely to recompense the scholar pecuniarily.

That the scholar is not in a position to continue the work without the help of the Scholarship.

That the scholar intends, after the expiration of the Scholarship, to adopt a pursuit in which his studies during his tenure of the Scholarship, will find useful practical application.

(3) The scholar shall undertake to make a detailed report to the Commissioners, of his work during the third year.

(4) The conditions on which the Scholarship was originally granted shall apply in all respects to its continuance during the third year.

The scholarship is payable half-yearly in advance (through the Treasurer of this University, if the scholar study in America); but £25 will be reserved from the last payment until the scholar has made a satisfactory final report.

The candidate nominated is required by the Commissioners to sign the following declaration:

I, the undersigned, hereby declare that the particulars concerning me mentioned in the foregoing form are correct, and I undertake that, if a Science Research Scholarship is awarded to me, I will hold it subject to the conditions laid down by Her Majesty's Commissioners for the Exhibition of 1851 with reference thereto, and I will, during its continuance, wholly devote myself to the objects of the Scholarship, and I will not during such continuance hold any position of emolument.

In cases in which the candidate nominated for a scholarship appears to H. M. Commissioners to have had insufficient

opportunity of showing whether or not he has the power to carry on independent research, and not therefore to be immediately qualified for a scholarship, but to give promise of becoming so after a year's experience of research work, said candidate also not being in a position to continue his studies without assistance, H. M. Commissioners may award him a Probationary Bursary. The following are the regulations under which such Bursaries are tenable:

1. A Bursary is intended for the maintenance for one year of a Student who proposes to become a Science Research Scholar under the scheme of the Commissioners at the expiration of the period covered by the Bursary, in order to afford him an opportunity of proving his power to carry on independent research. The authorities of an institution recommending a Student for a Bursary will be presumed to have satisfied themselves that he *bona fide* intends to accept a Scholarship if subsequently appointed to one.

2. An applicant for a Bursary must, except as to evidence of capacity for original research, fulfil all the conditions for the time being laid down for appointment to a Science Research Scholarship. He must have passed a B. Sc. examination (or its equivalent) with Honours before the commencement of the period covered by the Bursary. His age must not exceed 25, except under special circumstances.

3. A Bursary is tenable for one year, and is of the value of £70, payable by half-yearly instalments in advance, the second instalment being payable on receipt of a certificate from the Professor under whom the holder has been working that he has faithfully performed his duties.

4. A Bursary will be awarded on condition that the nominating institution undertakes to provide for the holder facilities for conducting research, and the requisite supervision, free from charge and incidental expenses.

5. The holder of a Bursary shall devote himself exclusively to research, and work preparatory to research, and none of his time shall be spent in assisting a teacher in his duties. The holder of a Bursary must not hold any other Bursary, Scholarship, or position of emolument.

6. The holder of a Bursary shall on or before May 1st in the year of tenure send to the office of the Commissioners an account of the research work performed by him, together with an application for appointment to a Science Research Scholarship. The Commissioners will expect to receive from the Professor under whom the holder of the Bursary shall have worked, a confidential opinion as to his capacity and qualifications.

7. The Commissioners may either appoint the holder of a Bursary to a Science Research Scholarship, or at their absolute discretion decline to appoint him, and in the latter case, shall not be called upon to state any ground for their decision.

8. A Science Research Scholarship, if granted, shall be held on the usual conditions attached to the Scholarships, or on any special conditions which the Commissioners may impose. But a scholar who previously to appointment has held a Bursary shall not be eligible for exceptional renewal of his Scholarship for a third year.

Students who desire to become candidates for nomination to the above Scholarship must make application to the President of the University on or before the 1st day of February,

1904. In making such application they must furnish a statement of the following particulars:—

- (a) Name and address.
- (b) Age and birth-place.
- (c) Institution or institutions in which candidate's term of study has been passed.
- (d) Specific statement of qualifications of candidate, including particulars of his college career, and of original research in which he has been engaged.
- (e) Name of institution to which candidate proposes to attach himself during tenure of Scholarship.
- (f) Statement of the particular scientific work, specifying the branch of science, to which the candidate proposes more especially to devote himself.
- (g) Statement as to whether or not the candidate will be prepared to accept a Probationary Bursary in the event of the Commissioners being unable to award a full Scholarship on the evidence submitted, and in the event of his being so prepared, a further statement as to his being unable to continue his studies without assistance.

As this University is required to certify the correctness of the above statement in the case of the candidate nominated, the statement must be accompanied by satisfactory evidence as to all particulars which are not in the University records. Thus age, attendance at other Universities or Colleges, and accounts of original researches conducted elsewhere, must be properly attested.

§ XXXVII.—Course for the Degree of B. E.—(1.) A course of study leading to the degree of Bachelor of Engineering in Mining is prescribed for students intending to become mining or metallurgical engineers.

The work of a mining engineer involves the constant application of the principles of certain fundamental sciences, as Mathematics, Physics, Chemistry and Geology. The technical training of a mining engineer is accordingly based upon a competent knowledge of these sciences, supplemented by a knowledge of the art of expression both by drawing and by language. In the following course the first two years are wholly devoted to the above-named sciences, together with Mechanical Drawing and English. In the Third Year some technical subjects, as Surveying, Applied Mechanics, Assaying and General Metallurgy are introduced; and the Summer Session, at the end of the Third Year, is devoted to field-work in Geology and Mining. In the Fourth Year the classes are almost wholly technical and are designed to cover two distinct though closely connected fields; that of the mining engineer, involved in the locating, developing and operating of mining properties, and that of the metallurgist, in the reduction of ores and the treatment of fuels. As a student may be looking forward

to work confined to one or other of these fields, he is now allowed to specialize to a certain extent; but he is in all cases required to have such a knowledge of both fields as may be essential to successful work in the one selected for specialization.

(2.) The following arrangement of the prescribed classes of the course in years gives the order in which, as a rule, these classes should be taken; and it is in the order on which the time-table of classes and examinations is based. In special cases, however, the Faculty may grant permission to take the classes in a modified order, subject to the regulation that no student shall, in general, be admitted to an advanced class in any subject who has failed to pass in classes required as preliminary, the right, however, being reserved to admit to an advanced class a student who has not fulfilled all the requirements of admission, provided he shall prove his fitness for the advanced work within one month of his admission to the class.

A candidate for the Degree of Bachelor of Engineering must have passed in his Matriculation Examination and in all classes of previous years before entering upon his final year of study for the Degree.

Details of the classes named below are given under Courses of Instruction (§ XXXI, pp. 51-63).

First Year.

First Mathematics,	Mechanical Drawing.
First Physics,	First English,
First Chemistry,	*Second French or Second German (optional subjects).
Descriptive Geometry,	

Second Year.

Second Mathematics,	Mechanical Drawing.
First Practical Physics,	Second English,
Second Chemistry,	*Third French or Third German (optional subjects).
Elementary Geology,	

Third Year.

Second Physics (Heat and Electricity),	Assaying.
Practical Inorganic Chemistry,	General Metallurgy.
Advanced Geology,	General Mining.
Mineralogy,	Surveying.
Applied Mechanics,	Field Work in Geology and Mining (Summer Session).

* Required for the Degree of Bachelor of Engineering with Distinction (§ XXXI, p. 76).

Fourth Year.

Second Practical Physics (Electricity),	Mining (Prospecting and Exploring),
Economic Geology,	Mining (Ore-dressing and Milling),
Applied Mechanics,	
Hydraulic Engineering,	Mining (Coal or Gold Mining),
Advanced Metallurgy,	Mining Law,

THESES.

§ XXXVIII.—Degree of Bachelor of Engineering.

—The Degree of Bachelor of Engineering in Mining shall be conferred upon candidates who have completed the prescribed course § XXXVII, provided, however, that students from other institutions, admitted to advanced standing, shall have had at least one full year of study at this School.

§ XXXIX.—Degree of B. E. with Distinction.

—Candidates for the degree of Bachelor of Engineering who have shown special excellence in the classes prescribed for the course, and, in addition, in the optional classes in either French or German, shall be declared to have obtained the degree with Distinction, or with Great Distinction, according to the standard of excellence they have reached.

§ XL.—Scholarships and Prizes.—The Sir William Young and Professors' Scholarships and Macdonnie Bursary, awarded at the Matriculation Examinations, and the Waverley Prize, are open for competition to students who are looking forward to, or have entered upon, the course for the B. E. degree.

§ XII.—Course of Study for Degree of B. Mus.—The Course of Study includes, besides English and Acoustics the following subjects:—Harmony, Counterpoint, Canon and Fugue, Form, and History of Music, for two years in each case, Instrumentation and Analysis of Scores, for one year.

Candidates shall be required besides attending the courses of instruction in the above subjects (§ XXVI), performing the required class exercises and passing the examinations, to compose, themselves, the exercises specified below, and to give evidence of their ability as musical performers by playing before one or more of the Examiners, on the pianoforte or organ (pipe), the pieces of music mentioned below.

(2.) The classes in the above subjects need not be taken in any one definite order and may be extended over more than

three years, but students are recommended to take them in the following order:—

FIRST YEAR.—(1) Harmony in not more than four parts; (2) History of Music from 1600 to 1799; (3) Acoustics in so far as connected with the Theory of Music; (4) English.

SECOND YEAR.—(1) Harmony in not more than five parts; (2) Simple Counterpoint in two or three parts; (3) Canon in two parts, Imitation and Fugue in not more than three parts; (4) Forms; Elementary Forms, Phrases, Periods, Open and Closed Forms; (5) Elements of Instrumentation; (6) History of Music from 1799 to the present time; (7) English.

THIRD YEAR.—(1) Single and double Counterpoint in not more than five parts; (2) Strict and Free Fugue in not more than five parts; (3) Form; Binary Form, Ternary Form, Rondo and Sonata; (4) Analysis of certain prescribed scores.

Exercises to be composed by the candidate: (a) A solo song with pianoforte accompaniment; (b) A four part vocal composition; (c) An instrument composition (other than a duet) for pianoforte, organ, or other stringed or wind instruments with pianoforte accompaniment.

The final examination in the practice of Music shall include one of the following groups:—

For the Pianoforte.

Prelude and Fugue in E minor	.....	<i>Mendelssohn.</i>
C major Sonata (Waldstein)	.....	<i>Beethoven.</i>
A major Polonaise	.....	<i>Chopin.</i>
D major Nocturne	.....	<i>Chopin.</i>
Concert Etude No. 1, (Waldesrauschen)	.....	<i>Liszt.</i>
Chagodie, No. 12	.....	<i>Liszt.</i>

For the Organ.

Prelude and Fugue in E major	.....	<i>Bach.</i>
Sonata in D minor (solo form)	.....	<i>Mend.</i>
Air with Variations and Fugato in A	.....	<i>Swart.</i>
Third Organ Sonata	.....	<i>Mendelssohn.</i>

§ XLII.—Short Courses of Study for General Students.

—(1) For the benefit of students who may be unable to spend four full years at the University, but may be able to give full attendance for shorter periods, or to attend a small number of classes for a series of years, short courses of study have been arranged.

Students entering on these courses shall not be required to pass any preliminary examination; but they shall not, in general, be permitted to enter an advanced class until they have passed in the class or classes required as preliminary, the right, however, being reserved to admit to an advanced class a student who has not fulfilled all the requirements of admission, provided he shall prove his fitness for the advanced work within one month of his admission to the class. Subject to this provision, the classes named in the courses given below may be taken in any convenient order.

The details of the subjects studied in the classes mentioned will be found under Courses of Instruction (§ XXVI, pp. 51-63).

(2) **Short Course for Teachers.**—This course is intended to provide a thorough, systematic and practical training in education, together with a practical study of scientific subjects, such as will enable the student to present and illustrate such subjects adequately in the school.

It shall consist of the following classes:—

Mental Science,	Geology,
Science of Education,	Biology (Botany and
History of Education and	Zoology).
Practice,	Physiology,
First Physics,	Drawing,
First Chemistry,	Mineralogy.
Practical Physics,	

(3) **Short Course in Colliery Management.**—

The following course is intended for men who have already passed the examination of the Provincial Board as Underground Managers, and is designed to supplement their practical knowledge with the theoretical training desirable for Colliery Managers. The course may be completed in one Winter Session. It shall consist of the following classes:—

Trigonometry (First Mathematics),	General Mining,
Elementary Geology,	Coal Mining,
Mechanical Drawing,	Mining Law,
Hydraulic Engineering,	Surveying,
	First English (optional).

(4) **Short Course in Prospecting.**—The following course may usually be completed in two Winter Sessions and one Summer Session. The classes to be taken are:—

Trigonometry (First Mathematics),	Assaying,
First Chemistry,	Mining Prospecting and Exploring).
Second Chemistry,	Mining Law,
Elementary Geology,	Surveying,
Economic Geology,	First English (optional),
Mineralogy,	Field Work in Geology (Summer Session).
Mechanical Drawing,	

(5) **Short Course in Assaying.**—This course is designed for students who wish to acquire a competent knowledge of Assaying without completing the course in Mining

Engineering. The course will usually occupy three Winter Sessions, but may be completed in a shorter time by students who enter at an advanced stage. The classes to be taken are:—

First Chemistry,	Assaying,
Second Chemistry,	General Metallurgy,
Practical Inorganic Chem.,	Advanced Metallurgy,
Elementary Geology,	Mining (Ore-dressing and
Economic Geology,	Milling),
Mineralogy,	First English.
Mechanical Drawing,	

(6) **Elective Courses.**—General students who have not entered upon one of the above courses are free to select any class or group of classes which may suit their purpose, subject to the regulation for admission to advanced classes stated above (§ XLII (1)). Encouragement is especially given to persons engaged in general mining to attend the University and take such classes as may enable them to conduct their work to greater advantage and safe-guard their property. A student who has entered upon one of the above courses may, with the approval of the Faculty, take classes in addition to those prescribed in the course he is following.

§ XLIII.—Diploma of Literate in Education

(L. E.).—This Diploma shall be awarded to students who have taken the above course for teachers (§ XLII (2)) on the following conditions:

(a) Before entering upon it they must furnish evidence of general education, equal at least to that implied in the possession of the Grade XI (B) Certificate of the Nova Scotia Education Department.

(b) They must pass satisfactory examinations in the subjects of the classes mentioned above, and receive the favourable report of those who conduct practical classes on their practical work.

(c) In connection with the Class of Practice of Teaching, they must have spent at least 300 hours in practical work (including actual teaching and observation of teaching) under approved supervision; but a portion of this practical work may have been carried out in the summer vacation, provided it be under the supervision of teachers, approved by the Faculty.

(d) The course in Drawing must include at least 200 hours in the class in Freehand Drawing and Modelling (§XXVI (xiii)).

(e) They must furnish certificates from teachers, approved by the Faculty, of having attended a course of instruction of at least 30 lessons in Manual Training, and of having acquired proficiency both in this subject and in School Music (Tonic Sol-Fa notation).—Instruction in both these subjects may be obtained in the City of Halifax.

§ XLIV.—**Certificates.**—Students who satisfactorily complete any of the short courses in mining subjects outlined above, (§ XLII (3), (4), (5)), shall be entitled to a Certificate of Proficiency, which shall indicate the character of the course they have followed, and the degree of success attained in it. Candidates for a Certificate shall not be required to pass a Matriculation Examination, but they shall be required to satisfy the Faculty that they have a fair general education.

§ XLV.—**Classes for Artisans.**—Classes are organized from time to time for artisans and other persons who are engaged in forms of work involving the application of scientific knowledge. These classes are usually held in the evening. Announcements with regard to them are made at the beginning of the Session.

§ XLVI.—**Summer School of Mining.**—During the Summer Session classes for miners and others interested in mining or related subjects may be held at one or other of the more important mining centres in the Province. The object of these classes will in no case be to duplicate instruction now available in local schools for miners, but, in communities where such schools exist, to offer those who have passed through them opportunities for further study. The subjects in which classes will be opened as well as the grade of instruction given will necessarily vary in different mining centres, and an effort will be made to adapt the classes as fully as possible to the needs of the community in which they are being held. The classes will continue for six weeks, that is, throughout the Summer Session. Detailed information is given in the Circular of the Summer School of Mining, which may be obtained on application to the Secretary of the Faculty of Science.

§ XLVII.—**Attendance.**—The regulations as to attendance of students are the same as in the Faculty of Arts. (See § XVII, p. 44.)

§ XLVIII.—**Class Exercises and Examinations.**—(1.) All students are required to prepare such exercises, reports, etc., as may be prescribed by the Professor or Lecturer, and to appear at all examinations.

In all classes, not conducted by Lecturers, two examinations are held, one immediately before the Christmas vacation, and the other after the closing of the lectures in April. In some classes, other examinations may be held at dates appointed by the Professors. At the April examinations questions may be set on any subject treated during the session.

The dates of examinations are arranged so as to enable undergraduates who follow the order of classes recommended in §§ XXXI and XXXVII, to appear at all the examinations of the classes they may be attending. Undergraduates and general students who attend the classes in any other order, should select classes with non-coincident examination dates. (See Almanac).

In determining the standing of a student in any class the degree of excellence shown in the essays, reports, field or laboratory work or other class exercises is incorporated with the standing at the examination. In order that a student's work in any class may be recognized as qualifying for a Degree or Certificate, he must secure a position on the Pass List. *To secure such a position, students in any of the Mining courses or in the B. Mus. course must show a higher degree of proficiency than those in the other, non-professional, courses in this Faculty.*

(2) A student who fails to pass in any class but who has satisfactorily completed the class exercises other than examinations, shall be allowed a Supplementary Examination in such class at the beginning of the next session of his attendance, on the day appointed for that purpose in the University Almanac.

The other regulations regarding Supplementary Examinations are the same for students in the B. Sc. or B. Mus. courses as in the Faculty of Arts. (§ XIX, pp. 45-50.)

(3) A student in any Mining course who, having failed in any class, does not take, or fails to pass, the Supplementary Examination in that class shall be regarded as "deficient" in that class.

Any student who is thus deficient in any class or classes of his course for previous years shall be required to pursue, in addition to the regular work for the year, such studies as may be necessary to make good the deficiency, or such part of it as the Faculty may determine.

The regulations regarding fees, notice required, etc., are the same in Mining courses as in the Faculty of Arts.

(4) Students whose final standing is sufficiently high are awarded First or Second Class Distinction; but students who attain a standing considerably above that required for First Class shall be indicated as having made a High First Class. In the Distinction Lists the names are arranged in alphabetical order in each grade. In the Pass List the names are in order of merit.

§ XLIX.—**Residence, Church Attendance, and Discipline.**—The regulations as to residence, church attendance, and discipline, in this Faculty, are the same as in the Faculty of Arts. (See § II, III, IV, pp. 1-2.)

§ L.—**The Degree of Master of Science (M. Sc.).**—The degree of Master of Science shall be conferred on a Bachelor of Science of at least one year's standing and of good character, either on his submitting to the Faculty a satisfactory thesis embodying the results of original research in some department of pure or applied science, or on his passing an examination in a course of scientific study, appointed or approved by the Faculty, of about the extent represented by the academic work of one year of the B. Sc. course. In the latter case no fixed courses of study are laid down, the intention being to encourage graduates to prosecute advanced courses of study either at this or at any other University, or by private reading, and to adapt the courses to their individual tastes and capacities; but no course of study shall be approved unless it is confined either to one department of science, or to closely related departments.

Theses must be sent to the Dean of the Faculty on or before the first day of March. Examinations shall be held ordinarily at the time of the Spring Examinations; but in special circumstances they may be held in the autumn. Candidates must give one month's notice of their intention to appear for examination.

On transmitting the thesis, or on giving notice of intention to appear for examination, candidates must pay a fee of Five Dollars. In the event of the degree being granted a further fee of Five Dollars is payable for the Diploma.

§ LI.—**Fees.**—The regulation regarding fees payable by students for registration, gymnasium, supplementary and special examinations, and such classes, conducted in the college, as are common to this Faculty and the Faculty of Arts, are the same as in the Faculty of Arts. For extra-mural classes the fees prescribed in the institutions in which they are held

must be paid. An examination fee of Three Dollars is payable in Anatomy, Physiology and Histology.

The following are the fees for each year of the course in Mining Engineering, payable by undergraduates taking the prescribed course. These amounts entitle the student to the use of the Library and Gymnasium and to attendance upon all the required classes of the course. For optional classes an additional fee must be paid in accordance with the schedule given below.

First year in Mining Engineering	840 50
Second year	82 50
Third year	60 50
Fourth year	61 50

The fees payable by students taking one or more classes in the Mining course, but not taking the prescribed course, are as follows:

For Registration, payable annually by students taking only one class	\$ 3 00
For Registration, payable annually by students taking two or more classes	5 00
For Practical Inorganic Chemistry*	14 00
For Second Chemistry or Advanced Metallurgy*	12 00
For First Chemistry*	10 00
For First or Second Practical Physics, Elementary or Advanced Geology, or Mineralogy*	8 00
For any other class	6 00
For use of Gymnasium	1 50

* All students taking classes involving laboratory work are required to make a deposit of Three Dollars on entering the class for each such class taken. This amount, or if charges for breakage have been incurred, what remains of it after such charges have been deducted, is returned to the student at the end of his laboratory course.

The Degree Examination fees are as follows:

For Examinations in Music (B. Mus.), in each year of the course	\$10 00
For M. Sc. Examination or report	5 00

The Graduation Fees are as follows:—

For B. Sc. Diploma	\$ 5 00
For B. E. Diploma	5 00
For M. Sc. Diploma	5 00
For B. Mus. Diploma	20 00
For an ad eonem Degree	10 00

Faculty of Law.

THE PRESIDENT, *see office.*

RICHARD C. WELDON, M. A., PH. D., D. C. L., K. C.

BENJAMIN RUSSELL, M. A., D. C. L., K. C., M. P.

C. SYDNEY HARRINGTON, K. C.

HUGH McINNIS, LL. B.

WILLIAM R. WALLACE, LL. B., J. C. C.

Dean of the Faculty—PROFESSOR WELDON.

Secretary of the Faculty—PROFESSOR RUSSELL.

§ LII.—Courses of Lectures.

The following Courses of Lectures to be given in the Session of 1903-04, will begin on the 2nd of September, 1903, and end on the 25th February, 1904.

CONSTITUTIONAL AND INTERNATIONAL LAW.

(George Murray Professorship.)

Professor..... R. C. WELDON, K. C.

Constitutional Law.

Two lectures per week.

Subjects of lectures:

Constitutional Conventions. Royal Prerogative.
Lex Parliamentis. Colonial Laws Validity Act.
Select Cases; Cartwright's Cases.

Constitutional History.

Two lectures per week.

Subjects of Lectures:

Feudalism in England. Origin and growth of the two Houses of Parliament. Origin and Development of trial by Jury. Origin and Development of the Courts of Law. The Royal Prerogative. History of the Law of Treason. The Liberty of the Person. The Liberty of the Press. History of Party Government. Origin and Development of the Cabinet System. History of the Reform Bills. The Written Code of the Constitution. *Magis Clerici*, Petition of Right. Bill of Rights. *Habeas Corpus*.

Text-book: Twiss-Langmead's Constitutional History of England.

Conflict of Laws.

One lecture per week.

Subjects of lectures:

Leading rules as to (1) personal capacity, (2) rights of property, (3) rights of obligation, (4) rights of succession, (5) family rights, (6) forms of legal acts. The use of courts by strangers. The effect of foreign judgments. Select cases upon the Conflict of Laws.

Text-book: Nelson's Private International Law.

International Law.

One lecture per week.

Subjects of lectures:

History of North Atlantic Fisheries. Convention of London, 1818. Territorial Waters. Treaty of Washington, A. D. 1871. Consuls. Commercial Treaties. Naturalization. Extradition. Blockade. Contraband. Intervention. Capture. Prize Courts.

Text-book: Hall's International Law.

CRIMES.

Lecturer..... W. R. WALLACE, LL. B., J. C. C.

Two lectures per week.

Subjects of lectures:

Sources of Criminal Law. Offences against Public Order, internal and external. Offences affecting the administration of Law and Justice. Offences against Religion, Morals and Public Convenience. Offences against the Person, and Reputation. Offences against rights of property and rights arising out of Contract and offences connected with trade. Procedure. Proceedings after conviction.

Text-book: The Canadian Criminal Code, 1892.

SHIPPING.

Lecturer..... PROFESSOR WELDON.

Subjects of lectures:

Registration of Shipping. Transfer. Mortgage. Bottomry and Respondentia. Charter party. Bills of Lading. *C. E. S. O.* Damage. Salvage. Freight. Tonnage. General Average.

CONTRACTS.

Professor..... B. RUSSELL, M. A., D. C. L., K. C., M. P.

Two lectures per week.

Subjects of lectures:

Definition of terms; agreement, consideration, proposal, acceptance, promise, &c. Persons who may contract. Principal and agent. Disabilities arising from insanity, coverture, infancy, intoxication, &c. Express and implied contracts. Verbal and written contracts. Specialties. Statutory requirements as to the validity and authentication of contracts; Statute of Frauds. Cases relating to agreements;

mistake, fraud, duress, &c. Discharge of contracts, rescission, performance, payment, release, merger, &c. Leading cases.

Text-books: Finch's Cases, and Anson on Contracts.

EQUITY JURISPRUDENCE.

Lecturer.....PROFESSOR RUSSELL.

One lecture per week extending over two years.

Subjects of lectures:

Trusts, Mortgage, Frauds, Mistake, Specific Performance of Contracts, Administration of Assets, Election, Account, Discovery, Injunction.

Text-book: Smith, H. A.

SALES OF PERSONAL PROPERTY.

Lecturer.....PROFESSOR RUSSELL.

One lecture per week.

[1903-4.]

Subjects of lectures:

Capacity to buy and sell. Executed and executory contracts of sale. Statute of Frauds. Lord Tenterden's Act. Rules as to passing of property. Reservation of *ius disponendi*. Stoppage in transitu. Condition. Warranty, express and implied. Remedies of seller and buyer.

Text-book: Benjamin on Sales.

NEGOTIABLE INSTRUMENTS.

Lecturer.....PROFESSOR RUSSELL.

One lecture per week.

[1904-5.]

Subjects of lectures:

Formal Requisites, Consideration. Indorsement and Transfer. Real and Personal Defences. Over-the Paper. Notice of Dishonor. Protest.

Text-book: McLaren on Bills.

EVIDENCE

Lecturer.....MR. C. S. HARRINGTON, K. C.

One lecture per week.

[1903-4.]

Subjects of lectures:

Nature of Proof. Production and Effect of Evidence. Relevancy. Instruments of Evidence.

Text-books: Greenleaf on Evidence; Judicature Act and Rules.

PARTNERSHIP AND COMPANIES.

Lecturer.....MR. C. S. HARRINGTON, K. C.

One lecture per week.

[1904-5.]

Subjects of lectures:

Constitution. Liability of partners *inter se* and to third persons. Change of firm. Retirement of partners. Dissolution. Mining ventures. Joint-stock Companies. Canada Joint-stock Companies Act.

Text-book: Lindley on Partnership.

PRACTICE AND PROCEDURE.

Lecturer.....MR. HECTOR McINNES, LL. B.

Subjects of lectures:

Judicature Act and Rules, General Principles of Pleading, and Rules of Practice.

Candidates for the Degree of LL. B. are not required to attend lectures or take the examination in Procedure.

TORTS.

Lecturer.....

One lecture per week.

Subjects of lectures:

Definitions. Torts considered with reference to Crimes and Contracts. Defeat, Slander and Libel. Malicious Prosecution. Conspiracy. Assault and Battery. False Imprisonment. Enticement and Seduction. Trespass to Property. Conversion. Violation of Water Rights and Rights of Support. Nuisance. Negligence.

Text-books: Bigelow, or Pollock.

REAL PROPERTY (First year).

Lecturer.....

§ LIII.—The Academic Year.—The Academic year consists of one session. The session of 1903-4 will begin on the 1st of September, 1903, and end on the 5th of March, 1904.

§ LIV.—Admission of Students.—(1.) Students may enter the University by (a) entering their names in the Register, and (b) paying the proscribed fees.

(2.) Registered students may, on payment of the proper fees, enter any of the classes of the University.

(3.) Students who wish to obtain University Degrees must become undergraduates. They may become undergraduates by (a) passing the Matriculation Examination of the Arts Faculty or a recognized equivalent, or (b) producing certificates of Articled Clerkship or the like in cases where they rely on having passed the preliminary law examinations in their several provinces, and (c) entering their names on the Register as Undergraduates.

(4.) Students who are not undergraduates are known as General Students.

§ LV.—Degree of Bachelor of Laws.—(1.) All candidates for the Degree of LL. B., are required to pass the Matriculation Examination of the Arts Faculty, or a recognized equivalent, to attend not less than five-sixths of the lectures given in each subject of the Course of Study, to pass the prescribed Examinations in the subjects of the three years Course of Study, and to argue at least two cases in the Moot Court.

(2.) Graduates and undergraduates in Arts of any recognized College or University, and articled clerks or law students who have passed the preliminary law examinations in any of the Provinces of the Dominion of Canada, in Newfoundland, or in any of the British West India Islands, shall be admitted to the standing of Undergraduates of the First Year in the Faculty of Law, without passing any examination.

(3.) Undergraduates of other Law Schools may, on producing satisfactory certificates of standing, be admitted to similar standing in this Law School if they are found qualified to enter the classes proper to their years. But if their previous courses of study have not corresponded to the course on which they enter in the University, they may be required to take extra classes.

§ LVI.—Course of Study for the Degree of LL. B.

First Year.

- | | |
|-------------------|----------------------------|
| 1. Real Property. | 4. Torts. |
| 2. Crimes. | 5. Constitutional History. |
| 3. Contracts. | |

Second Year.

- | | |
|-------------------------------|------------------------|
| 1. Equity. | 4. Constitutional Law. |
| 2. Partnership and Companies. | 5. Shipping. |
| 3. Negotiable Instruments. | 6. Wills. |

Third Year.

- | | |
|-----------------------|--------------------------------|
| 1. International Law. | 4. Equity. |
| 2. Conflict of Laws. | 5. Sales of Personal Property. |
| 3. Evidence. | |

The Faculty urgently recommend that students devote their whole time during Sessions to the work of the School, experience having proved that students who undertake office work in addition to the work of their classes, receive comparatively little advantage from the lectures.

§ LVII.—Sessional Examinations.—(1.) The Sessional Examinations will begin next Session on February 26th, 1904.

(2.) Students are forbidden to bring any book or manuscript into the Examination Hall, except by direction of the Examiner, or to give or receive assistance, or to hold any communication with one another at the examinations. If a student violate this rule, he shall be excluded from the Sessional Examinations of the Session, and such other penalty shall be imposed as the Faculty may determine.

(3.) If an Undergraduate fail to pass in two subjects at the Sessional Examinations, he shall be allowed a supplementary Examination in such subject or subjects at the beginning of any subsequent Session.

(4.) If an Undergraduate fail to pass in more than two subjects at any Sessional Examination, he shall lose his Session.

(5.) Undergraduates who wish to present themselves at a Supplementary Examination, must give notice addressed to the Secretary of the Faculty, Dalhousie Law School, Halifax, on or before August 23rd, 1903.

(6.) The Supplementary Examination for the present year will begin September 2nd, at 3 P. M. Fee \$5, payable on the day of the Examination.

§ LVIII.—Moot Courts. — Moot Courts are held weekly.

The case to be argued is stated by the Professor or Lecturer who is to preside. Every candidate for a degree shall be required to take part in at least two arguments at the Moot Court. The senior counsel on either side shall file briefs with the Dean one day before the day on which the case is argued. A record is kept of the values assigned to the arguments made, and these values may be considered by the Faculty in recommending a candidate for his degree.

§ LIX.—**Residence and Discipline.**—The regulations as to residence and discipline in this Faculty are the same as in the Faculty of Arts. See Arts Calendar.

§ LX.—**Academic Costume.**—Bachelors of Laws are entitled to wear gowns and hoods. The gowns are similar to those worn by Barristers-at-Law. The hoods are of black silk stuff, with a lining of white silk brodered with gold coloured silk.

§ LXI.—**The Library.**—The Library is in charge of a Librarian, who will endeavor to make its resources available to the Students. The Library will be found to contain almost all the reports an undergraduate will have occasion to consult.

§ LXII.—**Fees.**—The following are the fees payable by students of the Faculty of Law. *They are in all cases payable in advance.*

Students are requested to pay their Class Fees and sign the University Register on Tuesday 1st September, 1903, at 9 A. M., in the office of the Law School.

Registration Fee, payable only by General Students.....	8 2 00
Fee for each class attended, per Session, payable by General Students.....	10 00
Fee for each class attended, per session, payable by students of the Affiliated Course.....	6 00
Fee for the classes of the First Year, payable by undergraduates	40 00
Fee for the classes of the Second Year, payable by under-graduates.....	40 00
Fee for the classes of the Third Year, payable by under-graduates.....	40 00
Fee for L. B. diploma, which is payable before the final examination, and will be returned in case of failure.....	10 00
Fee for the Supplementary Examination.....	5 00

Students of any year are permitted to attend lectures in the subjects of an earlier year without extra charge.

Students will not hereafter be admitted to the Lecture Rooms unless they have paid their class fees.

Faculty of Medicine.

THE PRESIDENT, *per officio.*

GEORGE L. SINCLAIR, M. D.	LOUIS W. SILVER, M. B., C. M.
DONALD A. CAMPBELL, M. B., C. M.	FRED. W. GOODWIN, M. D.
A. W. H. LINDSAY, M. D., C. M.	F. U. ANDERSON, M. B. C. S., ENG.
JOHN STEWARD, M. B., C. M.	KENNEDY MACKAY, Ph. D.
DANIEL McNEIL PARKER, M. D.	WILLIAM H. HAYTIE, M. D.
ANDREW J. COVIE, M. D.	GEORGE M. CAMPBELL, M. D.
JOHN F. BLACK, M. D.	NORMAN E. MACKAY, M. D.
ALEXANDER P. IRID, M. D.	STEPHEN M. DIXON, M. A.
MATTHEW A. CURRY, M. D.	H. H. MCKAY, M. D.
MURRAY McLAREN, M. D.	MURDOCH CHISHOLM, M. D.
WILLIAM TOBIN, F. R. C. S., IRE.	NORMAN F. CUNNINGHAM, M. D.
HON. MR. JUSTICE HENRY.	

Dean of the Faculty: DR. SINCLAIR.

Secretary of the Faculty: I. R. LINDSAY.

Correspondence should be addressed:

"The Secretary, Faculty of Medicine,
Dalhousie College, Halifax."

§ LXIII.—**Courses of Instruction.***—1. Instruction is provided by the University in the following subjects of the Medical Curriculum:—

I.—CHEMISTRY.

(*McLeod Professor.*)

Professor E. MACKAY, Ph. D.

Junior Chemistry Class.

Mondays, Wednesdays and Fridays, 9—10 A. M.

CLASS WORK.—The lectures in this class deal in an elementary way with the principles of general chemistry. In the earlier part of the course the preparation and characteristic properties of common acids and bases are studied, and then the chemistry of fire of water and air, the order of historical development being followed as nearly as possible. When some acquaintance with chemical facts has thus

* It is to be distinctly understood that the program and regulations regarding courses of study and examinations contained in this Calendar hold good for year ending April 30, 1904, only, and that the Faculty while fully sensible of its obligations towards the students, does not hold itself bound to adhere absolutely for the whole four years of a student's course to the conditions now laid down.

been gained, the fundamental laws of combination are taken up and the atomic theory and chemical formulae are introduced. Chlorine, nitrogen, carbon and some of their typical compounds are then studied, and thereafter the principal remaining elements, each in connection with the group of elements in the periodic system to which it belongs. Examinations, oral or written, are held fortnightly, and occasionally written exercises are required.

LABORATORY WORK.—Every student is required to devote at least three hours a week to laboratory work. The laboratory course is designed to make the student familiar with ordinary laboratory operations and to lead him to solve simple problems in chemistry by experiment. Several common inorganic substances are prepared and studied; simple quantitative experiments are performed; and some time is devoted to elementary work in qualitative analysis.

Book recommended: Reagent's Introduction to the Study of Chemistry (Macmillan & Co.) for both class and laboratory work.

Senior Chemistry Class.

Tuesdays, Thursdays and Saturdays, 9.—10 A. M.

CLASS WORK.—The subjects of study in this class fall into two subdivisions: pure chemistry, taken up on Tuesdays and Thursdays, and the applications of chemistry to medicine, on Saturdays.

The subjects of study in pure chemistry are: determination of atomic and molecular weights; constitution of acids, bases and salts; classification and properties of the principal metals; compounds of carbon—their purification and analysis; the paraffins and their chief derivatives; ethylene; acetylene; benzene and its chief derivatives.

The subjects of study in medical chemistry are: Air; water, its sanitary analysis and purification; the chemical properties and detection of the more commonly occurring poisons; adulteration of foods; incompatibility of drugs; the proximate principles of the body and of food; typical foodstuffs as milk, flour, bread, meat; the blood; the digestive fluids and digestion; the principal animal secretions, especially urine; the quantitative estimation of glucose, albumen, urea.

LABORATORY WORK.—All members of the class are required to devote at least three hours a week to laboratory work. This will include qualitative analysis and the preparation of pure reagents. Practice is given in the identification of the chief inorganic compounds of the following elements: arsenic, antimony, tin, bismuth, copper, mercury, lead, silver, iron, chromium, aluminum, manganese, zinc, magnesium, barium, calcium, potassium, sodium, chlorine, bromine, iodine, sulphur, nitrogen, phosphorus, carbon, boron; and the identification of the following organic compounds (not more than one such being present): acetic, tartaric, oxalic, hydrocyanic, salicylic and citric acids and their salts, alcohol, chloroform, chloral, glucose, cane sugar, starch, phenol, quinine, morphine, strychnine.

For students who can devote sufficient time to the subject a more extended laboratory course is given, including, in addition to the preceding, the preparation and study of typical organic compounds and the quantitative estimation of the chief constituents of urine.

Books recommended: For class use, Rose and Harden's *Inorganic Chemistry for Advanced Students* (Macmillan & Co.); Hemeny's *Compounds of Carbon* (Macmillan & Co.); Hildreth's *Essentials of Chemical Physiology* (Longmans, Green & Co.). For reference: Reagent's *Inorganic Chemistry, Advanced Course* (L. Holt & Co.); Rose's *Medical Jurisprudence and Toxicology* (Blackiston, Son & Co.); Hammersley's *Text-book of Pharmaceutical Chemistry*, translated by Mandel (Wiley & Sons).

CHEMICAL LABORATORY.

The chemical laboratory accommodates about one hundred students. A reference library is placed in the laboratory for the use of students doing analytical work.

Laboratory students are allowed the use of all the more inexpensive reagents. They are required to provide themselves with the more expensive reagents, as alcohol and ether, and they are charged with the value of apparatus they have broken or injured.

The laboratory is open to students of the Junior Class on Mondays, Wednesdays and Fridays from 10 to 11 a. m., and to students of the Senior Class on Tuesdays and Thursdays from 10 to 11 a. m., and on Fridays from 11 a. m. to 12 m.

II.—ELEMENTARY BIOLOGY.

(A.)—BOTANY.

Lecturer.....

Saturdays, 11.—1 P. M.

The course in Botany will have special reference to the following subjects: Protoplasm and Plant-cells, the Tissue and Tissue Systems of Plants, Morphology of the Plant-body, Plant Physiology, the Principles of Classification and the Laws of Distribution, the Protozoa (Schizophyceae), the Phytophyta (Chlorophyceae and Phaeophyceae), the Carpophyta (Rhodophyceae, Accomycetee and Basidiomycetee specially), the Bryophyta (Mosses and Liverworts), the Peridophyta (Ferns, Horse-tails and Club-mosses), the Anthophyta (especially the Conifers, Gramineae, Orchidaceae, Liliaceae, Cruciferae, Labiateae, Compositae, Umbelliferae, Rosaceae, Leguminosae and Ranunculaceae). The Morphology and life history (the Anatomy, Histology and Development) of at least two common or representative species of each group of plants named above, in minute detail.

General attention will be given to the native flora of the province, with special notice of foreign as well as native species of interest from economic, medicinal or injurious properties.

The preliminary study of Botany as indicated in Grade IX of the Public School Course (Spotton's Structural Botany and Flora), and especially the formation of a local collection of plants, even if unassisted and unaided, will be an advantage to any student entering upon the course.

Practical instruction will be given in the collecting, drying and mounting of specimens, the use of the microscope, the preparing of microscopic sections, and the general dissection of plants; and all students will be required to present a collection of at least 100 plants representing the local flora examined by them, together with their notes and drawings of microscopic work done during the session, as a portion of their terminal examination. The use in class of a number of microscopes will be granted the students under the care and direction of the lecturer; but a hand lens, glass slides, cover glasses, needles and other apparatus, and books necessary for each student, shall be supplied by each for himself.

Text Books: *Elementary.*—Peevey's *Essentials*. For reference special texts will be recommended in each sub-division of the subject during the course of the lectures and demonstrations.

(B.)—ZOOLOGY.

Lecturer

Two Hour Session.

The work of the class will consist of a course of lectures supplemented by practical work.

The following subjects will be treated of in the lectures:—Organic and Inorganic Bodies; Differences between Plants and Animals, Morphology, Physiology, Differences between Animals, Specialisation of Function, Morphological Type, Von Ber's Law of Development, Origin of Species, Homology, Analogy, Reproduction, Distribution in Time and Space, Evolution and Classification with special reference to the faunas of Nova Scotia.

The practical part of the course will consist of Dissections and Demonstrations, Microscopic, &c.

The object of the class will be to give such a comprehensive idea of the Animal Kingdom, as will form a good basis for anyone wishing to prosecute still further the study of Biology, or Comparative Anatomy and Physiology.

Text Books: Students' Manual by Parker & Harwell. *Reference Text Books* for each sub-division of the subject will be recommended in the course of the lectures and demonstrations.

III.—MEDICAL PHYSICS.

Professor.....STEPHEN M. DIXON, M. A.

Tuesdays and Thursdays, 11 A. M.—12 M.

In this class a rapid survey of the subjects of Experimental Physics is taken, the subjects treated being:—The properties of solids and fluids (including the elements of dynamics); sound; heat; light; electricity and magnetism. The mode of treatment is inductive and quasi-historical, the generalisations and theoretical conceptions being worked up to, experimentally, but not systematically developed by deduction. The amount of mathematical knowledge assumed is therefore no greater than may be acquired in Grade XI of the Public Schools.

Members of the class, though required to work up the subjects treated in the lectures, are not expected to carry on any extensive private reading. But they will be expected to refer to works recommended by the lecturer in sections of the subject which have important practical application in medical study.

Books recommended for reference: Daniell's *Physics for Students of Medicine* (Macmillan & Co.); Robertson's *Physiological Physics* (Cassell & Co.); Jones' *Heat, Light and Sound* (Macmillan & Co.)

2. Students wishing to attend the above courses may do so either as General Medical Students without preliminary examination, or as regular Undergraduates in Medicine. In either case they must enter their names in the University Register at the beginning of the Session. By reference to §§ XVI and XXXI Undergraduates in Arts and Science will see how they at the same time may be registered with the Medical

Faculty and so secure the benefit of certain classes of the Arts and Science Courses, as regular Undergraduates in Medicine.

3. In other subjects the necessary classes may be attended at any other University or College recognised by the Senate.

4. Attendance on classes by those registered as General Medical Students will not qualify for Degree Examinations in this Faculty except as provided in § LXVIII 1 (A) 2 c.

5. Certificates indicating less than 90 per cent. of attendance upon any class will not be accepted without valid reason for absence being shown.

§ LXIV.—The Academic Year.—The Academic year consists of one session of eight months duration. The Session of 1903—1904 will begin on Thursday, August 27th, 1903, and end on Tuesday, April 27th, 1904.

§ LXV.—Degrees.—Two Medical Degrees are conferred by this University, viz. Doctor of Medicine (M. D.) and Master of Surgery (C. M.); but neither degree is conferred on any person who does not at the same time obtain the other.

§ LXVI.—Matriculation Examination.—1. Candidates for medical degrees must give evidence of having obtained a satisfactory general education, by presenting certificates of having passed, before entering on the course of study qualifying for the degree, either the Preliminary Examination of the Provincial Medical Board of Nova Scotia, the Junior Matriculation Examination of this University, with Latin as one of the languages selected, or some other examination recognized by the Board as sufficient.*

2. The Examinations recognized *pro tanto* by the Provincial Medical Board will be similarly recognized by this Faculty.

3. Candidates who may have passed in all but one of the subjects required for the Preliminary Examination of the Provincial Medical Board either before the Board's Examiners or at any of the recognized Examinations indicated above, provided they shall have made at least 25% in such subject, may enter as undergraduates, but will subsequently be required to comply with the Board's regulations as regards the remaining subject of examination before being admitted to the classes of the second year.

*All information in reference to Requirements for the Preliminary Examination of the Provincial Medical Board, Examinations, etc., may be obtained on application to the Registrar of the Board, Dr. A. W. H. Lindsay, 261 Pinesamt Street, Halifax.

§ LXVII.—Degree Examinations.—1. Candidates for the degrees of M. D. and C. M. shall be required to pass two main examinations—the Primary and the Final M. D., C. M. Examinations—and to have satisfied at the dates of the examinations certain conditions as to fees, attendance on classes, etc. Tickets of admission will be issued to all candidates who have satisfied these requirements of the Faculty, which tickets shall be produced at each examination.

2. The Regular Degree Examinations will be held during the second and third weeks in April of each year.

3. At all examinations a minimum of 50% in each subject will be required to obtain a "Pass," except under the conditions specified in § LXIX, 4. Candidates making 75% or over on any subject shall be indicated in the published class lists as having "Passed with distinction." The names in the two divisions of the class lists and in the general pass lists shall be placed in simple alphabetical order.

4. Should the candidate fail to pass or to hand in a paper in any subject or subjects at the Regular Examinations, his fee will not be returned to him, but he will be permitted a supplementary examination in such subject or subjects on payment of \$5.00 for each subject, with or without evidence of further attendance on said subject or subjects as the Faculty may direct.

5. A candidate who has been prevented by exceptional circumstances from presenting himself at the Regular Examinations may by special permission of the Faculty be allowed a special examination, but such examination shall only be allowed at the dates specified in the University Almanac for the supplementary examinations, and the fee shall be \$5.00 for each subject of examination.

6. Candidates are not permitted to present themselves for examination in selected subjects, but are required to take each section as hereafter defined (§§ LXVIII—LXIX) as a whole, except (a) Candidates obtaining the special permission of the Faculty; (b) Students taking one of the affiliated courses (§ LXIII, 2).

In either case the fee will be \$5.00 for each subject, and such examination shall only be allowed at the dates specified in the University Almanac for the supplementary or the regular examinations.

7. Candidates who have been granted supplementary examinations, will be required to pay the examination fee whether they take the examination in the Autumn or at the time of the regular April examinations.

§ LXVIII.—Primary M. D., C. M. Examination.*—1. This examination shall consist of two parts as follows:—

(A.) PRIMARY EXAMINATION, SECT. A.

(1.) This examination shall include Anatomy, Chemistry, Elementary Biology and Medical Physics, to the extent indicated in the following synopsis:—

Anatomy.

A written examination on Osteology, including general physical characters, chemical composition and coarse structure of bone (Ossification, Arthrology; classification of Joints, structure and mechanism of the most important (hip, knee, shoulder, elbow, ankle, etc.)

Chemistry.

Elementary general chemistry, as in the course of the Junior Chemistry Class, outlined on pp. 89, 90.

Elementary Biology.

Candidates will be expected to show a practical acquaintance with the topics indicated as forming the subject matter of the courses of lectures and instruction in Botany and Zoology, outlined at pp. 91, 92.

Medical Physics.

A written examination on the subject matter included under this heading at p. 92

(2) Candidates for this examination shall be required to produce certificates to the following effect:

(a) Of having passed the Preliminary Examination of the Provincial Medical Board of Nova Scotia, the Junior Matriculation Examination of this University with Latin, or other examination recognized as sufficient, at least one academic year previously, and of having completed their sixteenth year before the passing of said examination.

(b) Of having, after passing the Preliminary Examination or other equivalent examination, attended either in this University, or in some other University or College approved by the Senate, during at least one medical session of eight months duration a course in Anatomy, (Osteology and Arthrology) of at least 75 lectures and demonstrations with 10 hours laboratory work per week for six months.

(c) Of having, either before or after passing the Preliminary Examination or other equivalent examination attended

*See foot note, p. 88.

either at this University, or at some other University or College approved by the Senate, the following courses of lectures and instruction, viz., *Chemistry*, a course of at least 75 lectures with a laboratory course of not less than three hours per week for six months; *Elementary Biology*, a course of at least 100 hours of lectures and laboratory work; *Medical Physics*, a course of at least 50 lectures.

(3.) Exemption from examination in any or all of these subjects may be allowed on production of satisfactory certificates.

(B.) PRIMARY EXAMINATION, SECT. B.

(1.) This examination shall include Anatomy, Physiology and Histology, and Chemistry, to the extent indicated in the following synopsis:—

Anatomy.

This examination will be partly written and partly viva voce. The paper may include questions in Descriptive and Regional Anatomy, Surgical and Medical Anatomy. At the oral examination, candidates will be examined on the skeleton, recent dissections, models, preparations, etc.

Physiology and Histology.

A written and an oral examination on: (a) The physiology of digestion, absorption, circulation, respiration, secretion, nutrition, animal heat, animal motion; the functions of the nervous system and sense organs; reproduction and development.

(b) The composition of food, and of the tissues, secretions, excretions and other fluids of the body.

(c) Histology.

At the oral examinations microscopical preparations of the tissues and organs of the body will also be submitted for identification and description.

Chemistry.

Inorganic, organic and medical chemistry as in the course of the Senior Chemistry Class, outlined on page 96. The examination will include: (a) A written paper. (b) A practical examination in the laboratory. (c) An oral examination, in which questions may be put to candidates upon the entire work of the Junior and Senior courses.

(2.) Candidates for this examination shall be required to produce certificates to the following effect:

(a) Of having passed the Preliminary Examination, or other examination recognized as sufficient, at least two academic years previously, and of having completed their sixteenth year before the passing of said examination.

(b) Of having passed in the subjects of the first part of the Primary Examination either at this University or at some other University or College recognized by the Senate.

(c) Of having, after passing the Preliminary Examination or other equivalent examination, attended either in this University, or in some other University or College approved by the Senate, during at least two medical sessions each of eight months' duration, the following courses of lectures and instruction, in addition to those prescribed under § LXVIII 1 (2) (2) for Sect. A of the Primary Examination, viz.: *Senior Anatomy*, a course of at least 75 lectures and demonstrations with 10 hours laboratory work per week for six months; *Senior Chemistry*,* a course in Organic and Medical Chemistry of 75 lectures with a laboratory course of not less than 3 hours per week for six months; *Physiology*, a course of at least 75 lectures; *Histology*, a course of at least 75 hours of lectures and laboratory work.

(3.) (a) Candidates who have not passed Sect. A of the Primary Examination may by special permission of the Faculty be allowed to complete their Primary Examination in both sections at the same time.

(b) Exemption from Examination in any or all of the subjects* of the Primary Examination, may be allowed on production of satisfactory certificates.

2. The Primary M. D., C. M. Examination will be held in the second and third weeks in April. Candidates are required to hand in their applications and to transmit as far as possible the certificates specified above for Sect. A or Sect. B, as the case may be, to the Secretary of the Faculty at least fourteen days before the date of the examination, and the remainder of the required certificates not less than two days before the date of the examination, to enter their names in the Register of Undergraduates of the University before the date of the examination, and to pay before the date of the examination, one-sixth of the amount of the graduation fee in the case of candidates for Sect. A, and one-third of the graduation fee in the case of candidates for Sect. B†

§ LXIX.—Final M. D., C. M. Examination;

1. This Examination shall also consist of two parts as follows:

(A.) FINAL EXAMINATION, SECT. A.

(1) This Examination will include the following subjects:—*Materia Medica, Pharmacy and Therapeutics; Patho-*

* In Chemistry, exemption from further attendance or from further examination may be allowed although the Preliminary Examination may not have been taken previous to the attendance or the passing of the examination in that subject.

† Candidates exempted from Sect. A of the Primary Examination will be required to pay one-half of the graduation fee before being admitted to Sect. B.

‡ See foot-note p. 82.

logy and Bacteriology; Medical Jurisprudence and Insanity, and Hygiene.

Materia Medica.

This examination will be partly written and partly oral. Candidates will require to possess a knowledge of:—

(a) The general nature and composition, and the most important physical and chemical characters of the Pharmacopœial drugs, named in the annexed Schedule.

(b) The composition of the Pharmacopœial preparations of these drugs, and the process employed in making them.

(c) The doses, therapeutical uses and modes of administration of these drugs and their preparations; writing prescriptions.

At the oral examination candidates will also be required to recognize the drugs indicated by *italics* in the annexed Schedule:

Liquor Chlori; *Cale Chloratum*; Liqueur Soda Chlorinatae.
 Bromum; *Ammonii Bromidum*; *Potassii Bromidum*; Sodii Bromidum.
Iodum; *Potassii Iodidum*; Sodii Iodidum; Plumbi Iodidum
Sulphuratum; *Sulphur Precipitatum*; Calx Sulphurata;
 Potassa Sulphurata.
 Phosphorus; Calci Phosphas; Sodii Phosphas; *Ferri Phosphas*;
 Calci Hypophosphis; Sodii Hypophosphis.
 Acidum Hydrochloricum; Acidum Nitrosum; Acidum Sulphuricum.
 Acidum Aceticum; Acidum Oxtricum; Acidum Tartaricum.
 Acidum Boricum; Acidum Sulphuricum.
 Acidum Hydrocyanicum Dilutum.
 Liqueur Ammonii; Liqueur Potassæ; Liqueur Soda; Potassa Caustica;
 Soda Caustica.
 Ammonii Carbonas; Ammonii Chloridum; Liqueur Ammonii Acetatis.
 Potassii Bicarbonas; Potassii Sulphas; Potassii Chloras; Potassii
 Tartras Acidæ; Potassii Permanganas.
 Sodii Bicarbonas; Sodii Sulphas; Sodii Nitris; *BERA*.
 Calx; Calci Hydras; *Creta Fragranta*; *Calci Carbonas Precipitata*.
 Magnesia; Magnesi Carbonas; *Magnesi Sulphas*.
 Alumina; *Alumina Emulcorata*.
 Zinci Oxidum; Zinci Chloridum; *Zinci Sulphas*.
 Cupri Sulphas.
 Argentii Nitras.
Hydrocyanicus; *Hydrocyanici Oxidum Flavum*; *Hydrocyanici Oxidum Rubrum*; *Hydrocyanici Subchloridum*; *Hydrocyanici Perchloridum*.
Hydrocyanici Iodidum Rubrum; *Hydrocyanicus Ammoniacus*;
 Liqueur Hydrocyanici Nitratæ Acidus.
 Liqueur Hydrocyanici Nitratæ Albus.
Plumbi Oxidum; *Plumbi Acetas*; Liqueur Plumbi Subacetatis.
 Acidum Arsenicosum; *Ferri Arsenias*; Sodii Arsenias; Arsenii Iodidum;
 Liqueur Arsenii et Hydrocyanici Iodidii.
 Bismuthi Subnitras; Bismuthi Carbonas; Bismuthi Citras.
 Ferrus; *Ferri Sulphas*; *Ferri Sulphas Granulosus*; *Ferri Sulphas Exsiccatus*; Syrupus *Ferri Subchloridii*; *Ferri Carbonas Saccharatus*; Syrupus (et *Falsus*) *Ferri Iodidii*; Liqueur *Ferri Acetatis*; Liqueur *Ferri Perchloridii*; Liqueur *Ferri Pernitratii*; Liqueur *Ferri Pepsogranitii*; *Ferri Peroxidum Hydratum*; Liqueur *Ferri Dulytatis*; *Ferri et Ammonii Citras*; *Ferri et Quinini Citras*; *Ferrum Tartaratum*; *Ferrum Rodiatum*.
 Alcohol æthylicum; *Spiritus Rectificatus*; Spiritus Tenuior.
Ether; *Chloroformum*; *Iodoformum*.
 Chloral Hydras; Butyl Chloral Hydras; *Paraldehydum*; Sulphonal.

Amyl Nitris; Tabella Nitrogyoerini; Liqueur Trinitrini; *Spiritus Ætheris Nitrosi*.
 Acetanilidum; Phenacetin; Phenacetum.
 Colloium.
Acidum Carbolicum; *Acidum Salicylicum*; Sodii Salicylas.
 Acetanilidi et Folia; Acetina.
 Opium; Morphine Hydrochloras; Morphine Acetas; Morphine Sulphas; Liqueur Morphine Bimucosatis; Aponorphine Hydrochloras; Codeina.
 Cocca; Cocaine Hydrochloras.
 Jaloveradi; Pilocarpine Nitras.
 Quassia Lignea; *Cubeba Radix*; *Cassia Radix*.
 Physostigmati Semen; Physostigma.
 Coffeina; Caffeina Citras.
 Cassii Fructus et Folia.
 Anisidum; Anisonicum; Myrrha; *Guaiaci Resina*.
 Cinchona Cortex; *Cinchona Rubra Cortex*; *Quinina Sulphas*;
 Quinine Hydrochloras.
 Salicinum.
 Ipecacuanha; *Sereno Radix*.
 Glycerinum.
 Vinæ Fumica; *Styracina*.
 Belladonna Radix et Folia; Atropina; Atropine Sulphas; Hyoscyami Folia; *Stramonii Semen et Folia*; Homatropine Hydrobromas.
Cyanabis Indica.
 Digitalis Folis; Strophanthus.
 Ocum Ricini; Ocum Crotonis; *Alga Barbadoensis*; *Alga Scortichini*.
 Aloin; *Rhusoni Purshiani Cortex*; *Colocynthidis Pulpa*.
 Elettarium; Eleuterium; *Sesuvium*; *Podophylli Rhizoma*; *Rhei Radix*;
Senna Alexandrina et Indica; *Campêche*; *Oleum Turbithicum*.
 Acidum Trinitricum; *Acidum Gallicum*; Kino; *Catechu*; *Hannatibilla Cortex et Folia*.
 Acidum Benzoicum.
 Capsula. *Cubeba*. *Burha Folia*.
Colchici Cormus et Semina.
 Scilla.
Filix Mas. *Santonium*.
 Ergola.
Ocum Morrhu. *Contarini*.

Medical Jurisprudence and Insanity, and Hygiene.

The Examination will be partly written, partly oral. Candidates will be examined on the following topics:—

Forensic Medicine.

- I. Examinations of Persons found Dead, with reference to:—(1) Identification; (2) Time of Death; (3) Cause of Death.
- II. Violent causes of Death:—(1) Drowning; (2) Strangulation; (3) Suffocation; (4) Mechanical Injuries and Wounds.
- III. Poisons and Poisoning:—(1) Symptoms and post-mortem appearances in cases of poisoning by the following agents:—Isorganic—Mineral Acids; Solutions of Alkalis; Copper; Lead; Mercury; Antimony; Arsenic; Phosphorus. Organic—Oxalic Acid; Carbolic Acid; Opium; Strychnine; Belladonna; Aconite; Chloretors; Chloral Hydrate; Cyanide. (2) Duties of medical men in case of Poisoning as regards observation; Treatment and Preservation of parts for Analysis. (3) Preliminary Tests for Poisonous Substances for Clinical Use before reference to an Analyst.

- IV. Medico-legal points in connection with:—Pregnancy, Delivery, Rape, Criminal Abortion, Infanticide, Assaults and Homicide, Wounds and other external Injuries; Mental Capacity in relation to Criminal Responsibility, Contracts, and Wills; Malpractice, and Neglect of Duty.
- V. Forms of Insanity. Examination of persons supposed to be insane. The Lunacy Laws in so far as they affect the Medical Practitioner when signing Certificates of Lunacy.

Hygiene

- I. WATER, in its relation to Health and Disease:—(1) The Character and Classification of Drinking Water. (2) The Causes and Sources of the Impurities found in Water and Methods of Purification. (3) The Diseases conveyed by Water, and the Methods of dealing with Epidemics of such Diseases.
- II. AIR, in relation to Health and Disease:—(1) The Causes and Sources of the Impurities found in Air. (2) The Diseases conveyed through the Air. (3) The quantity of Air necessary for Health; the Principles of Ventilation.
- III. SOIL, in relation to Health and Disease:—(1) The Causes and Sources of the Impurities in the Soil, and the Methods of dealing with them. (2) Diseases connected with the Soil. (3) The Methods of dealing with Excreta and Sewage.
- IV. FOOD, in relation to Health and Disease:—(1) Dietetics. (2) The common Adulterations of the chief Articles of Diet. (3) Diseases connected with Deficiency or Impurity of Food-supply.
- V. The Dwelling, in relation to Health and Disease:—The Principles of House Drainage.
- VI. The Principles of Disinfection, and the mode of Action of the chief Disinfecting Agents.
- VII. The Provisions of "The Act for the Notification of Disease."

Pathology and Bacteriology.

The Examination will be partly written, partly *visu voco*. Candidates will be expected to possess a knowledge of:—

- (a) *General Pathology*, including Degenerative Processes, Inflammation, Morbid Growths, etc.
- (b) *General Etiology*, with reference to Parasitic and Infective Diseases.
- (c) *Systematic Pathology*, the more important diseases of the principal systems and organs of the body.
- (d) *Bacteriology*, to include the General Morphology and Life History of Micro-Organisms; Characters of Organisms Pathogenic to the Human Subject, and their modes of producing diseases, etc.

At the oral examination candidates will be examined on gross and microscopical preparations, and will be expected to possess a knowledge of the Preparation of Culture Media, Methods of Isolation and Cultivation, Staining, Separation of Bacterial Products, Inoculation.

(2) Candidates for this examination shall be required to furnish certificates to the following effect, viz:—

(a) Of having passed the Preliminary Examination, or other examination recognized as sufficient, at least three academic years previously, and of having completed their sixteenth year before the passing of said examination.

(b) Of having passed the Primary M. D., C. M. Examination at this University, or of having passed an equivalent examination at some other University or College recognized by the Senate.

(c) Of having, after passing the Preliminary Examination, or other equivalent examination, attended at some University or College approved by the Senate, during at least three medical sessions, each of eight months' duration, the following courses of lectures and instruction, in addition to those prescribed under § LXVIII for the Primary Examination, viz:—*Materia Medica*, a course of at least 75 lectures; *Therapeutics*, a course of at least 25 lectures; *Medical Jurisprudence (including Insanity)*, a course of at least 50 lectures and demonstrations; *Hygiene*, a course of at least 25 lectures and demonstrations; *Pathology and Bacteriology*, a course of at least 150 hours of lectures, demonstrations and laboratory work.

(d) Of having, after passing the Preliminary Examination, or other equivalent examination, attended at some University or College, approved by the Senate, one course of instruction of at least thirty lessons in Practical Dispensing, or under the same conditions had three months practice in the dispensing of drugs with a registered apothecary or dispensing medical practitioner;

(B.) FINAL EXAMINATION, SECT. B.

(1) This Examination will include the following subjects:—Surgery, Clinical Surgery, Medicine, Clinical Medicine, Obstetrics and Diseases of Women and Children.

Surgery.

The Examination in this subject will be partly written and partly *visu voco*. The candidates will be expected to possess a knowledge of the Principles and Practice of Surgery, of Surgical Pathology, Surgical Anatomy, and Operative Surgery. They will also be examined on the more common Diseases of the Skin, of the Eye, Ear, Throat and Nose.

Clinical Surgery.

This Examination will be partly practical and partly oral. Cases will be submitted for diagnosis and treatment. Candidates will also be examined on the application of Splints and Bandages, and on the use of Surgical Instruments and Appliances.

Medicine.

In this subject there will be a written and an oral examination on the Clinical History, Causes, Diagnosis, Prognosis and Treatment of the Diseases of the different Systems and Organs of the Body. The examination will also include Infectious Diseases, Constitutional Diseases, Mental Diseases, and Diseases of the Nervous System. Candidates may also be questioned on Medical Anatomy and on Therapeutics.

Clinical Medicine.

The Examination in Clinical Medicine will be partly practical and partly oral. Patients will be submitted for Examination, Diagnosis and Treatment. Examination of specimens of Urine, Spina, etc., will be required.

Obstetrics and Diseases of Women and Children.

In these subjects there will be a written and an oral examination, which will embrace the following:—

- (a) The Anatomy and the Physiology of the Female Organs of Reproduction.
- (b) The Physiology, Pathology and Therapeutics of Pregnancy.
- (c) Parturition, natural and morbid.
- (d) Hygiene, Pathology and Therapeutics of the Puerperal State.
- (e) Hygiene, Pathology and Therapeutics of Infancy and Childhood.
- (f) Special Pathology and Therapeutics of the Female Organs of Reproduction.

At the oral examination, candidates may also be questioned on Gynecological Operations and the use of Instruments and Appliances.

(2) Candidates for this examination will be required to furnish certificates to the following effect, viz.:—

(a) That they have completed their twenty-first year, or that they will have done so, on or before the day of graduation. This certificate shall be signed by themselves, and shall be after the following form:—

HALIFAX, 19....

I, the undersigned, being desirous of obtaining the Degree of Doctor of Medicine and Master of Surgery, do hereby declare that I have attained the age of twenty-one years (or if the case be otherwise), that I shall have attained the age of twenty-one years before the next graduation day

(Signed), A. B.

(b) Of having passed the Preliminary Examination, or other equivalent examination, at least four academic years previously, and of having completed their sixteenth year before the passing of said examination;

(c) Of having passed the Primary M. D., C. M. Examination at this University, or having passed an equivalent examination at some other University or College recognized by the Senate;

(d) Of having passed the First part (Sect A) of the Final Examination at this University;

(e) Of having, after passing the Preliminary Examination, or other equivalent examination, fulfilled the following requirements:

α. Attended at some University or College recognized by the Senate, during at least four academic years, each of at least 8 months duration, two courses of at least 75 lectures each in each of the following, in addition to the subjects prescribed under §LXVIII 1 and §LXIX 1 (A) (2), viz.: *Surgery, Medicine, Obstetrics and Diseases of Women and Children, Clinical Surgery, Clinical Medicine*; and one course of at least 25 lectures and demonstrations in *Ophthalmology, Otology and Laryngology*.

β. Attended at some University or College recognized by the Senate, a course in Operative Surgery, and of having performed operations on the dead body to the satisfaction of the Teacher*;

γ. Attended during at least eighteen months the practice of the Victoria General Hospital, or that of some other General Hospital approved by the Senate, or attended such hospital practice for twelve months with at least six months additional attendance on the practice of a recognized Dispensary, or of the out-patient department of an approved Hospital;

δ. Attended at a recognized Hospital or Dispensary courses of practical instruction of at least 25 lessons or demonstrations each, in Medicine and in Surgery, including:—the methods of examining various organs and other parts of the body, in order to detect the evidence of disease or the effect of accidents, the employment of instruments and apparatus used in diagnosis or treatment, the examination of the Urine and other secretions, and of morbid products;

ε. Served at least six months as a dresser in the Surgical wards, and six months as a Clinical Clerk in the Medical wards of a recognized Hospital, and reported at least 10 Medical and 10 Surgical cases, or of having done other equivalent practical work in Surgery and Medicine*;

ζ. Attended at least four cases of midwifery, under a recognized practitioner*;

*Blank certificates will be issued to candidates, which must be filled out and signed by the proper authorities.

9. Attended the Post Mortem Examinations in a recognized Hospital for a period of at least six months, during which they have received practical instruction in the methods of making Post Mortem Examinations and in framing Reports. Such certificate to be accompanied by reports of at least six autopsies which the candidate has attended.

10. Received instruction and attained proficiency in the practice of Vaccination, under a recognized medical practitioner.*

(3) Candidates who have not passed Sect. A. of the Final Examination may by special permission of the Faculty be allowed to complete their Final Examination in both sections at the same time.

2. The Final M. D., C. M. Examination will be held in the second and third weeks in April. Candidates are required to hand in their applications and to transmit as far as possible the certificates specified above for Section A or Section B, as the case may be, to the Secretary of the Faculty, at least fourteen days before the date of the Examination, and the remainder of the required certificates not less than two days before the date of the Examination, and to enter their names in the register of undergraduates before the date of the examination, and to pay before the date of the examination, one-sixth of the amount of the graduation fee in the case of candidates for Section A, and one-third of the graduation fee in the case of candidates for Sect. B.

3. Candidates who may have been exempted from passing the Primary Examination under the provisions of § LXVIII. 1, (A) (3), (B) (3) (6) will be required to pay the balance of the full graduation fee before being admitted to the last part of the Final Examination.

4. A candidate having failed to make 50% in any subject of Sect. B of the Final Examination will also be required to pass again in any other subject in which he may have made less than 60% with or without evidence of further attendance on such subject or subjects as the Faculty, in their discretion may determine. At all such Supplementary Examinations candidates are required to make at least 60% in each subject.

§ LXX.—Medals and Prizes.—MEDICAL FACULTY MEDAL.—This Medal will be awarded on graduation to the

*Blank certificates will be issued to candidates, which must be filled out and signed by the proper authorities.

student who stands first at the Final M. D., C. M. Examination (Section B), provided he shall have obtained distinction in at least three of the five subjects of examination.

DR. LINDSAY'S PRIZE.—A Prize of Books will be awarded to the student who stands first among those taking Section B of the Primary M. D., C. M. Examination, provided he shall have obtained distinction in at least two of the three subjects of examination.

THE SIMSON PRIZE.—An Annual Prize of twenty-five dollars is offered by Frank Simpson, Esq., to be awarded to the student who, at the end of his third year, has during his course, passed the best examinations in Chemistry, Practical Chemistry, Materia Medica and Therapeutics.

§ LXXI.—Residence.—All students are required to report their place of residence to the President on or before the day appointed in the University Almanac (October 14th.)

All students not residing with relatives or friends are required to reside in lodging houses approved by the President.

§ LXXII.—Discipline.—The Senate may use all means deemed necessary for maintaining discipline.

§ LXXIII.—Academic Costume, etc.—1. Undergraduates and general students attending more than one class, are entitled to wear caps and gowns at lectures and all meetings of the University. The forms prescribed are the Oxford undergraduate gown of black stuff with sleeves; and the black trencher with tassels.

2. Doctors of Medicine of this University shall be entitled to wear black stuff gowns and hoods. The hoods shall have a lining of scarlet silk bordered with white silk.

3. Successful candidates for this degree shall be required to appear at Convocation in Academic costume to have the degree conferred upon them. Degrees shall not be conferred in the absence of the candidate, except by special permission of the Senate.

4. Before receiving his degree, the candidate will be required to sign the following oath or affirmation:

SPONSO ACADÉMICA.

In facultate Medicinae Universitatis Delloisianae.
Ego, Doctoratus in Arte Medica titulus jam deservitus, sacro coram Deo cordius scrutatore, spondeo — me in omni grati animi officio erga

Universitatem Dalhousianam ad extremam viam salutem, perseverantem. Tum porro Artes Medicinæ acute, caste, probeque exercitaturus et quoad poterit, omnia ad agrotorum corporum salutem conducentia, cum fide procuraturus. Quæ demique, inter medicum, visa vel audita silere conveniant, non sine gravi causa vulgatarum. Ita processus nulli spondenti editi Numen.

§ LXXIV.—Fees.—The following fees, payable by students and candidates for the degrees of M. D., C. M., are in all cases payable in advance:—

Registration	82 00
Junior Chemistry Class Fee (including Laboratory Fee)*	10 00
Senior " "	12 00
Elementary Biology Class Fee (including use of microscope and reagents)	12 00
Physics	5 00
Graduation Fee†	30 00
Gymnasium Fee, by all male students attending the University.	1 50

*All students taking classes in the chemical laboratory are required to make a deposit of Three Dollars on entering the class. This amount, or if charges for breakage have been incurred, what remains of it after such charges have been deducted, is returned to the student at the end of the laboratory course.

†Students who have paid \$200 or upwards as Examination Fees are not required to pay an additional Graduation Fee.

Institutions.

THE UNIVERSITY LIBRARIES.*

At Convocation, April 27th, 1867, a vigorous appeal was made on behalf of a Library Fund by the Rev. G. M. Grant and others. John Tootin, M. P. P., offered a subscription of \$200, Dr. Tupper, Provincial Secretary, Dr. Avery, J. A. Sinclair and Rev. G. M. Grant promised \$100 each, and Errol Boyd, Curator of the college, subscribed \$25. His Excellency the Governor, Sir Frederick Williams, capped the list with \$400.

In the Calendar for 1869-70 a section on the Library, apparently drafted by Prof. Macdonald, Secretary of the Senate, appears for the first time. "Through the liberality of a number of friends of the College, a library has been formed, which consists of a careful selection of the most useful works in each department of study embraced in the University course. There are likewise a few works in general literature. The library embraces in all upwards of 11000 volumes." Ten years later the number of books did not exceed 2000; twenty years afterwards there were but 3250 volumes; thirty years later 8050 volumes were reported; to-day the Arts Library contains about 11000 volumes and about 2800 pamphlets.

Within a year of the organization of the Faculty of Law, 300 volumes were presented for a Law Library. This Library is under the control of the Law Faculty and now numbers about 6550 volumes. See § LV. of the Calendar relating to that Faculty.

The Arts Library contains the MACKENZIE COLLECTION of works on Mathematical and Physical Science, which was presented to the College by the relatives of the late Professor J. J. MacKenzie; the ROBERT MORROW COLLECTION of works on Northern Antiquities and Languages, presented by Mrs. Robert Morrow; the SETH COLLECTION of Philosophical works, purchased with the proceeds of a course of public lectures on Psychology given by Professor James Seth; the DEMILLE MEMORIAL, presented by Professor MacMechan from the proceeds of a course of Lectures on Shakspeare; the LAWSON

*Students have access, subject to certain conditions, to the Citizens' Free Library, the Legislative Library, and the Libraries of the N. S. Institute of Science and of the Mining Society.

LIBRARY, presented by the daughters of the late Professor George Lawson, LL. D.; the McCulloch Collection, from the Library of the late Rev. W. McCulloch, D. D.; the ERWIN P. ROBINNS MEMORIAL COLLECTION of Philosophical books; and the MACDONALD LIBRARY presented by the son of the late Professor Charles Macdonald, M. A.; also the following CLASS MEMORIAL COLLECTIONS:—

- Class of 1894: Classical Dictionaries.
- Class of 1895: *Sophocles' Plays* and *Bacon's Works*.
- Class of 1896: *Jesuits' Relations*.
- Class of 1897: *Dryden's Works*, and *Economics*.
- Class of 1898: *Standard Editions of Plato and of Aristotle*.
- Class of 1899: *New English Dictionary*, *General Literature*.
- Class of 1900: *Dictionary of National Biography*.
- Class of 1901: *Mathematical and Physical Books*.
- Class of 1902: *Works on Geology*.

The Class memorials are the most important contributions to the Library. The set of the *Jesuits' Relations*, seventy-three volumes in all, is now complete, and to its cost the class of 1896 has contributed \$210. Two more volumes have been added to the new English Dictionary. This is part of the gift of the class of 1899 whose total contributions have now reached the large sum of \$248.50. The Class of 1901 has given \$114.84 which has been expended largely on *Mathematical and Physical Books*. The gift of the Class of 1903 will be devoted to the purchase of complete sets of the works of Darwin and Stevenson. These gifts reflect the greatest credit both on the givers and the College that has such generous students.

The Accession book shows that about 400 books and pamphlets were given to the library during the session 1902-03.

The following graduates have presented copies of their publications to the library. Professor J. G. MacGregor: *Kinematics and Dynamics*; Professor A. S. McKenzie: *The Question of the Divisibility of the Atom*; *On Some Equations pertaining to the Propagation of Heat in an infinite medium*; *On an instrument for drawing sine curves*; *Laws of Gravitation*; Dr. E. H. Archibald: *Atomic weight of Caesium*.

Books have been received from:—Various Funds, 79; Macmillan & Co., 28; R. H. Graham, LL. B., 8; Professor A. MacMechan, 10; Professor J. E. Woodman, 15; The Alumni Association, 5; Rev. T. C. Jack, 5; 'A lady

student', 12; Dr. D. A. Murray, 4; President Forrest, 3; Professor W. C. Murray, 10; C. W. Matheson, B. A., 4; Macdonald Memorial, 3; I. E. Todd, Dakota, 2; Pierre de Coubertin, 2; President Allison, 2; Professor J. E. Creighton, A. D. Gunn, Mrs. C. Archibald, 'Canadian in New York,' Dr. A. P. Reid, Miss C. B. Thompson, Ph. D., G. H. Sedgewick, B. A., K. F. MacKenzie, B. A., 'The Dalhousie Gazette,' G. S. Stairs, B. A., Mission Class, Senatus Edinburgh University, Rev. J. B. MacLean, B. A., Cape Breton Alumni Association, R. W. Elms, W. R. Dawson, Rev. George Miles, W. M. Ogilvie, Dr. E. Mackay, J. H. Austen, Rev. Anderson Rogers, G. M. Acklom, M. A., G. G. Sedgewick, 1 each.

Reports have been received from:—Dominion Government, 15; U. S. Government, 14; U. S. Department of Agriculture, 5; Geological Survey, Canada, 4; British Columbia Government, 4; Historical Society of Manitoba, Department of Marine and Fisheries, Smithsonian Institution, 3 each; Library of Congress, New York State Government, Ontario Department of Agriculture, 2 each; Y. M. C. A. America, Halifax Y. M. C. A., Canadian Department of Agriculture, Government N. W. T., Belgian Government, Royal Society of Canada, G. N. Morang, University Club New York, General Assembly of Presbyterian Church in Canada, Royal Military Club, N. S. Institute of Science, Toronto Public Library, P. E. I. Government, Quebec Government, U. S. Department of the Interior, Dominion Educational Association, 1 each.

Calendars and Reports have been received from the following Universities and Colleges:—Edinburgh, Glasgow, Aberdeen, St. Andrews, Dundee, London, Birmingham, Bristol, Dublin, Trinity College (Dublin), Melbourne, Sydney, Manitoba, St. Boniface, Toronto, Trinity (Toronto), Western University, Queen's, Ottawa, McGill, Laval, Wesleyan College (Montreal), Bishop's, New Brunswick, Mt. Allison, St. Joseph's, Acadia, St. Francis Xavier, Presbyterian College (Halifax), Prince of Wales, Montpellier, Harvard, Columbia, Cornell, New York, Pennsylvania, Johns Hopkins, Chicago, Northwestern, Michigan, Nebraska, Missouri, California, Maryland, Brown, Lehigh, Vassar, Bryn Mawr, Niagara, Denver College of Medicine, Detroit College of Medicine, Auburn Theological Seminary, Hartford Theological Seminary.

Periodicals have been regularly placed on the reading tables and in many cases given to the library by the following:—Professor W. C. Murray: *Nation*, *International Journal of Ethics*, *Psychological Review*, *Philosophical Review*,

Educational Review (N. Y.); Professor E. Mackay: *Weekly Times, Popular Science Monthly*; Professor J. E. Woodman: *The World's Work, Outlook, Harvard Graduates Magazine*; Professor H. Murray: *American Review of Reviews, McClure, Cosmopolitan*; Professor Falconer: *Spectator*; Professor Weldon: *Contemporary Review*; Professor MacMechan: *Monthly Review, Queen's Quarterly*; Miss Eliza Ritchie: *Academy and Literature*; Professor D. A. Murray: *Fortnightly, Science*; Professor Dixon: *Nature*; A. H. R. Fraser, Esq., Lt. B.: *American Historical Review*; Other Sources: *Classical Review, Educational Review* (N. B.), *Economic Studies, Publications of American Economic Association*.

The library has been open five days each week of the Session from 10 to 1 and from 3 to 5 p. m. About 3000 books were taken out from May, 1901 to May, 1902. Between 50 and 60 readers per day, made use of the library. Students have free access to all catalogued books. Stock was taken in October, 1902. Ninety-three catalogued books were then out of the library without tickets to show for them. Many of these have since been returned; at the end of April 38 books were unaccounted for.

The duties of Assistant to the Librarian were efficiently discharged by Mr. G. G. Sedgewick, and Mr. C. S. Lawrence.

Abstract of Current Class Memorial Accounts:—

CLASS OF 1899.

Receipts.

1902, May 10.	Reported to date.....	\$248 20
1903, May 11.	From A. H. S. Murray, M. A.	8 16
		\$256 66

Expenditures.

1902, May 10.	Reported to date.....	\$231 55
	Books ordered to the value of about.....	20 00

CLASS OF 1901.

Receipts.

1903, May 10.	Reported to date.....	\$101 84
1903, March, April.	Additions to Fund.....	13 00
		\$114 84

Expenditures.

1902, May 10.	Reported to date.....	\$ 64 10
	Ordered supplementary volumes of the Encyclopaedia Britannica, about.....	60 00

CLASS OF 1903.

1902, May 10.	Reported to date.....	\$100 00
	Works on Geology.....	31 65

The Library Committee for the Session 1903-4 consists of the Librarian and Professors MacMechan and Walter Murray.

MACDONALD MEMORIAL LIBRARY FUND.

GENERAL COMMITTEE.

John F. Stairs, President Forrest, Principal Pollok, Dr. A. H. MacKay, Judge Treisman, A. S. Barnstead, George S. Campbell, W. R. Campbell, Rev. A. F. Carr, Prof. J. E. Creighton, Alfred Dickie, D. Finlayson, M. P. P., D. C. Fraser, M. P., Prof. A. R. Hill, Prof. E. E. Jordan, Dr. A. W. H. Lindsay, Douglas McIntosh, Prof. A. S. Mackenzie,	F. J. A. McKittrick, W. E. MacLellan, Robert MacLellan, E. A. Macleod, Rev. D. Macrae, D. D., Dr. W. H. Magee, Rev. E. D. Millar, A. M. Morrison, Alex. Robison, George S. Robison, Judge Sedgewick, D. M. Sloan, John Stewart, M. D., J. J. Stewart, Dugald Stewart, M. D., F. I. Stewart, H. M. Stramberg, Prof. John Waddell.
---	---

EXECUTIVE COMMITTEE.—Prof. E. Mackay, *Chairman*; G. M. J. Mackay, *Secretary*; G. M. Campbell, M. D.; J. W. Logan; Prof. D. A. Murray; George Patterson, M. P. P.; Theodore Ross; G. A. R. Routledge; G. H. Sedgewick; H. B. Stairs.

The Board of Governors has agreed that as soon as the subscriptions to the Fund shall reach the sum of twenty-five thousand dollars, and the amount of cash paid thereon eight thousand dollars, the Board will undertake the erection of the Library Building. On May 10 the state of the Fund was: Amount subscribed, \$21085.00; Cash paid thereon, \$4724.67.

At a meeting held after Convocation on April 28, 1903, a committee on plans and specifications was appointed, consisting of John F. Stairs, Chairman, George S. Campbell, J. J. Stewart, J. W. Logan, Prof. Howard Murray, Hugh Mackenzie, A. K. Maclean, M. P. P., R. M. MacGregor, and a representative to be named by the Cape Breton Branch of the Alumni Association.

THE UNIVERSITY MUSEUM.

The Museum* consists chiefly of the THOMAS McCULLOCH and the PATTERSON COLLECTIONS.

THE THOMAS McCULLOCH COLLECTION was presented to the University in 1881, by the late Rev. William McCulloch, D. D., of Truro, with a fund of \$1,400 for extending the collections. It formed the museum of Prof. Thomas McCulloch, who occupied the chair of Natural Philosophy from 1863 to 1865. It contains a large and valuable collection of birds, especially of the native birds of the Maritime Provinces, many specimens of minerals, especially of Nova Scotian species, also rock specimens, a set of Carboniferous fossils, chiefly Nova Scotian, and a collection of European Cretaceous fossils, Indian implements, shells of recent Mollusca, native plants, &c. These collections were made in part by Rev. Thomas McCulloch, D. D., the first president of the College. The McCulloch collection of birds has recently been increased by additions paid for out of the McCulloch Museum Fund. An arrangement has been made with Mr. T. J. Egan, by which his valuable collection, containing about 30 cases of native birds, has been placed in the Museum on loan.

THE PATTERSON ARCHEOLOGICAL COLLECTION.—This collection of Indian Antiquities were made by the late Rev. George Patterson, D. D., LL. D., F. R. S. C., while engaged during a number of years in researches regarding the history and modes of life of the aborigines of Nova Scotia. The collection was presented by him to the College in 1889, on the condition that the Governors should make suitable "provision for the preservation and exhibition of the same, in such a manner as is usual in well managed Museums." It is kept as a separate collection. It contains 288 specimens, separately catalogued, and is arranged conveniently for reference. About 250 of the specimens have been obtained in Nova Scotia. They illustrate the stone age of its aboriginal inhabitants, and form an almost complete representation of the articles usually found among the remains of the native races of North America. There are also a number of similar articles from the United States, Scotland, the West Indies, and especially the New Hebrides. The classified catalogue of the collection, which is arranged according to the method adopted in the description

* The Provincial Museum, in the New Provincial Building, contains collections illustrating the Mineralogy, Geology, and Zoology, of the Province, and is open to the public daily. It may be conveniently used by students.

of the archeological collections of the Smithsonian Institution, contains full particulars of the localities where the several specimens were obtained.

The Zoological Section of the Museum, containing between 500 and 600 specimens, was catalogued by the late Dr. A. Halliday, Lecturer on Zoology.

Mr. H. S. Poole, Lecturer in Geology, has done much work in classifying and arranging the Geological material in the Museum.

The Geological Survey Department, Ottawa, has presented a large number of Mineralogical and Geological specimens.

THE GYMNASIUM.

All male students on paying the regular fee of one dollar and fifty cents, are entitled to the services of the Instructor, and to the use of the Gymnasium. During the past session instruction was given by Sergt.-Major Long.

In future the Gymnasium will be under the management of a Committee of Six, of whom three are to be appointed by the Senate and three by the Dalhousie Amateur Athletic Club. The representatives of the Senate for the session 1903-4 are President Forrest, Professors Liechti and H. Murray.

Drs. George M. Campbell, W. D. Forrest and D. G. J. Campbell are examining Physicians for the College.

THE ALUMNI ASSOCIATION

(Incorporated 1876.)

EXTRACT FROM THE LAWS.

1. The object of the Association shall be the promotion of the interests of the University.
2. The Association shall consist of Ordinary and Associate Members.
3. All Graduates of the University, all persons who during at least one academic year have been registered students, either of Dalhousie College or of other colleges which have been merged in or united with Dalhousie College, and all other persons who have at any time been educated by means

of the funds of Dalhousie College, shall be eligible for ordinary membership. But no persons other than graduates shall become members until three years have elapsed from the date of their first entering the college, except by special permission of the Executive.

4. Persons not eligible for membership under Section 3 may be elected Associate members.

ABSTRACT OF MINUTES OF ANNUAL MEETING.

The Thirty-first annual Meeting of the Association was held in the Munro Rooms of the College, Monday, April 27th, at 8 p. m., the President, Mr. J. W. Logan in the chair.

The reports of the Executive Committee, the Treasurer, the Dean of the Science Faculty, and the Cape Breton Branch, were read and adopted.

The membership of the Association has been increased during the year by 45, making the total number 278.

The financial standing of the Association is shown in the Treasurer's statement as below:—

THE ALUMNI ASSOCIATION OF DALHOUSIE COLLEGE IN ACCOUNT WITH S. A. MORTON, Treasurer.

1902.		RECEIPTS.	
April 26.	Balance	\$	200 49
July 8.	J. A. Lippincott, M. D., Special Contribution.....		50 00
1903.			
Feb. 13.	Graham Creighton, " " ..		25 00
	D. D. Hugh, M. A., " " ..		20 00
Mich. 24.	A Member, " " ..		25 00
April 24.	Geo. M. Campbell, M. D., " " ..		30 00
April 25.	Members' Dues during the year.....		128 00
		\$	597 49
1902.		DISBURSEMENTS.	
June 23.	Writing Table, for Secretary's use.....	\$	5 85
Sept. 27.	McAlpine Pub. Co., for Printing Annual Report, Laws of the Association, Circulars, Stationery, etc		51 25
1903.			
Jan. 6.	Prof. Mackay, for the Science Faculty		200 00
April 25.	Postage during the year.....		13 70
April 25.	Balance.....		376 69
		\$	597 49

The report of the President and Secretary of the Cape Breton Branch showed that an annual Bursary of \$50 had

been established, and is to be awarded to the student from the Island of Cape Breton standing highest in the third year's examinations in the School of Mines. No Bursary was awarded this year owing to the fact that this new department has yet no third year students.

The following are the officers of the C. B. Branch:—

<i>Honorary President</i>	CHAS. S. CAMERON, M. A.
<i>President</i>	G. A. R. ROWLING, B.A., LL.B.
<i>Vice-President for Cape Breton Co.</i> ..	R. F. PHALEN, LL. B.
" <i>Richmond Co.</i>	D. FINLAYSON, B. A., LL. B.
" <i>Inverness Co.</i>	D. S. MACINTOSH, B. A., B. SC.
" <i>Victoria Co.</i>	W. N. COCHRANE, M. D.
<i>Secretary</i>	J. W. G. MORRISON, B. A.
<i>Treasurer</i>	F. I. STEWART, B. A.
<i>Executive Committee:</i> EX-MAYOR W. CROWE, A. D. GUNN, W. R. TOBIN, R. M. LANUILLÉ, and A. W. ROUTLEDGE.	

Dr. E. Mackay, Dean of the Science Faculty, reported that the Faculty of Science obtained \$231.46 from the Alumni Society, and this was divided between the departments of Geology and Physics. The department of Physics received \$160.99; of which \$146.27 was expended for a storage battery, and the balance on books on electricity. The department of Geology received \$73.47 which was expended on books and on apparatus needed in the classwork.

The usual grant of not less than \$200 to the Science Faculty was continued.

Applications from members of the Graduating Classes for membership in the Association were read, and the applicants duly elected.

The following officers were elected for the ensuing year:

<i>President</i>	J. H. TREFRY, M. A.
<i>1st Vice-President</i>	PROF. E. MACKAY, PH. D.
<i>2nd " "</i>	W. J. LEAHY, LL. B.
<i>Secretary</i>	R. M. HATTIE, B. A.
<i>Treasurer</i>	S. A. MORTON, M. A.
<i>Other Members of the Executive Committee</i>	J. W. LOGAN, B. A. E. D. FARRELL, M. D. G. M. CAMPBELL, M. D. A. H. S. MURRAY, LL. B. D. A. MURRAY, PH. D.
<i>Auditors</i>	W. A. LYONS, LL. B. H. B. STAIRS, LL. B.

STUDENTS SOCIETIES.

University Students' Council.

Meetings are held regularly in November and February to conduct business in which all the Students of the University are interested. Special meetings may be called by the President at any time.

President	G. M. J. MACKAY.
Vice-Presidents	{ D. McLEAN. W. C. ROBERTSON. W. H. COFFIN.
Secretary-Treasurer	K. B. ROSS.
Executive Committee	{ T. G. MACKENZIE. G. O. CHEESE, B. A. T. T. FULTON, B. A. A. E. G. FORBES. W. CARROLL, B. A. A. C. JOHNSON. HARVEY THORNE. E. FRASER. E. BLACKADAR, M. A. J. W. G. MORRISON, B. A.
Reading Room Committee	

The DALHOUSIE GAZETTE is published by the students of the University under the authority of the Council.

The following have been appointed by the students of the Arts and Science Faculties as Editors for 1903-04:—

L. BREHAUT, (Arts, '04).	W. M. CORRETT, (Arts, '04).
R. B. FORSYTHE, (Arts, '03).	H. C. FRASER, (Arts, '05).
W. F. CARROLL, B. A., (Law, '04).	V. H. SHAW, (Law, '05).
F. W. JARDINE, (Med, '04).	J. A. PROUDFOOT, (Med, '03).
Financial Editor	

Others will be appointed at the opening of the Session by the Lady Students, and the Students of the Faculties of Law and Medicine.

Art Students' Society.

This Society meets in October and April to conduct business in which the Arts Students alone are interested. Special meetings may be called at any time by the President.

OFFICERS.

President	L. BREHAUT.
Vice-President	J. A. SCRINGEOUR.
Secretary-Treasurer	G. L. MCCAIN.
Executive Committee	{ G. M. J. MACKAY. F. F. SMITH. W. D. TAIT.

Law Student's Society.

This Society meets at the opening of the Session for general business, and thereafter at such times as the President may deem necessary.

OFFICERS.

President	J. W. WELDON, B. A.
Vice-President	H. A. DICKIE.
Secretary-Treasurer	A. H. S. MURRAY, M. A.
Executive Committee	{ E. A. MACLEOD, B. A. W. C. ROBERTSON. L. H. FENERTY.

The Mock Parliament.

The Mock Parliament meets every Saturday night until the Xmas vacation. All students of the University are welcome, but only students taking Law Classes are allowed to take part in the debates which are wholly of a political character on current questions. Parliamentary procedure is strictly observed.

OFFICERS.

Speaker	E. A. MACLEOD, B. A.
Deputy Speaker	G. O. CHEESE, B. A.
Clerk	C. D. LIVINGSTONE.
Sergeant-at-Arms	J. J. CAMERON.

The Moot Court.

The Moot Court is intended for law students only, so far as arguing is concerned. It is conducted as nearly as possible after the manner of the Supreme Courts; and all law students of second and third years' standing are required to take part in at least one case during the session. (See Law Faculty).

The Medical Debating Club.

The meetings of this Society are held weekly throughout the session. Topics of general interest are discussed, and papers on medical subjects are read.

OFFICERS.

President	G. W. WHITMAN.
Vice-President	G. A. HARDY.
Secretary	G. A. DUNN.
Treasurer	V. N. MACKAY.
Executive Committee	{ K. A. MACKENZIE. A. F. MILLER. J. A. PROUDFOOT. M. E. DEVINE.

The Sodales Debating Club.

The Sodales Debating Club meets fortnightly during the session, subjects of general interest being discussed. A series of lectures by prominent public men will be given under the auspices of the club.

OFFICERS.

<i>Honorary President</i>	PROF. S. M. DIXON.
<i>President</i>	E. FRASER.
<i>Vice-President</i>	W. F. CARROLL, B. A.
<i>Secretary</i>	W. H. COFFIN, B. A.
<i>Treasurer</i>	D. McLEAN.
<i>Executive Committee</i>	G. M. J. MacKAY, (Arts).
	W. C. ROBERTSON, (Law).
	N. MACDONALD, (Medicine).
	J. A. FERGUSON, (Science).
<i>Lecture Course Committee</i>	L. BREHAUT.
	D. G. DAVIS.
	E. R. ROSS.
	E. BLACKADAR.
	J. A. REDMOND.

Young Men's Christian Association.

Meetings of the Association are held every Saturday evening at the College.

OFFICERS.

<i>President</i>	J. A. SCRIMGOUR.
<i>Vice-President</i>	J. M. BEATON.
<i>Recording Secretary</i>	G. L. McCAIN.
<i>Corresponding Secretary</i>	W. I. GREEN.
<i>Treasurer</i>	A. E. G. FORBES.

Young Women's Christian Association.

Meetings of the Association are held every Monday afternoon at 5 o'clock.

OFFICERS.

<i>President</i>	ESTELLA BURRIS.
<i>Vice-President</i>	MABEL MURRAY.
<i>Treasurer</i>	MILDRED WILLIAMS.
<i>Recording Secretary</i>	MINNIE SPENCER.
<i>Corresponding Secretary</i>	ALICE HAVERSTOCK.

The Dalhousie Amateur Athletic Club.

<i>Honorary President</i>	PRESIDENT FORREST.
<i>President</i>	C. MACDONALD.
<i>Vice-President</i>	J. REDMOND.

<i>Secretary</i>	C. T. RAILLIE.
<i>Honorary Treasurer</i>	G. S. STAIRS, B. A.
<i>Executive Committee</i>	J. MALCOLM, B. A.
	J. J. CAMERON.
	C. O. CHEESE, B. A.
	J. L. POTTER, M. D.
	R. H. SUTHERLAND.
<i>Captain</i>	H. A. DICKIE.
<i>Trophy Committee</i>	R. H. SUTHERLAND.
	H. A. DICKIE.
<i>Grounds Committee</i>	J. A. MacKINSON, B.A., LL.B.
	R. T. MacLURETH, LL. B.
	J. C. O'MULLIN, LL. B.
<i>Auditors</i>	T. G. MACKENZIE.
	W. M. CORBETT.

The Glee Club.

The Club meets once a week for practice of glees and choruses.

OFFICERS.

<i>Honorary President</i>	PROF. S. M. DIXON.
<i>President</i>	L. J. MILLER, B. A.
<i>Vice-President</i>	EUPHEMIA M. McDOUGALL, B.A.
<i>Secretary-Treasurer</i>	G. W. LANGILLE.
<i>Executive Committee</i>	OLIVE W. SMITH.
	ELIZA MCKENZIE.
	MABEL MURRAY.
	A. H. S. MURRAY, M. A.
	G. G. SEDGEWICK, B. A.
<i>Conductor</i>	C. B. WIRREL.
<i>Accompanist</i>	G. ISABELLA WOOD.

The Delta-Gamma Society.

The Delta-Gamma Society meets bi-monthly during the session. All lady students are eligible for membership. Debates are held, and literary programmes are prepared.

OFFICERS.

<i>President</i>	HATTIE M. RAYE.
<i>Vice-President</i>	ELIZA MACKENZIE.
<i>Secretary</i>	ELEANOR STANFIELD.
<i>Treasurer</i>	JOYCE HARRIS.

AFFILIATED COLLEGES.

Halifax Ladies' College.

President.....REV. ROBERT LAING, M. A.

The object of the College is to provide a liberal education for young women. It has three departments of study,—the Primary, the Preparatory, and the Collegiate.

In the Collegiate department the course of study extends over three years, and includes English, French, German, Latin, Greek (optional), Mathematics and Elementary Science. The teaching staff in this department for 1902-03 was as follows :

- MISS ETHELWYN FITCHES, B. A., with HON. in Philosophy (McGill),
Mathematics.
MRS. J. S. TRUMAN, M. A., (Dalhousie), *History, Literature and Latin.*
MISS ELLA HUNTER, B. A., (New Brunswick University), *English and*
Preparatory Department.
MISS SCRAN B. GANNING, B. A., (Smith College), *Science.*
Mlle. MARGUERITE PASQUIER, Brevet Supérieur de l'Académie de Paris,
French and German.
MISS J. E. F. MCKENZIE, B. A., (McGill), *English.*
MISS IRENE H. HAWKINS, (School of Expression, Boston), *Elocution.*
MISS JEAN CAMERON, (Boston Cooking School), *Domestic Science.*
SERGEANT MAJOR LONG, (Army Gym. Staff), *Gymnastics and Callisthenics.*
MISS M. E. FLETCHER, *Stenography and Typewriting.*
MISS MYRA SMITH, *Stenography.*
MISS HELEN MOWAT, *Art.*

Young women who have completed the four years' course are admitted to the first year in the Arts and Science Faculties in this University without examination in subjects which formed parts of the course.

The College Buildings, which include a Hall or Residence as well as Class Rooms and Assembly Hall, are situated in a central part of the City of Halifax, at a distance of about three-quarters of a mile from Dalhousie College. Young women who are registered students of Dalhousie College are admitted to the Ladies' College as boarders. The conditions of admission and the charges may be ascertained on application to the President.

The College has an Art Studio in which instruction in Fine Art is given by Miss Helen Mowat.

Halifax Conservatory of Music.

President.....REV. ROBERT LAING, M. A.

FACULTY OF INSTRUCTORS.

- Piano*—MR. PERCY GORDON, Royal Conservatory at Leipzig.
" MRS. M. WALLACE.
" MR. J. H. LOGAN, Royal Hochschule at Berlin, and pupil of Godowsky.
" MISS HELEN TILLEY, Royal Conservatory at Leipzig.
" MISS ESTHER CLARK, Halifax Conservatory of Music.
" MISS LOUISE C. TUPPER, Halifax Conservatory of Music.
Fletcher Music Method—MISS HELEN TILLEY.
Violin—MR. EDSON W. MORPHY, New England Conservatory of Music.
" MISS BEATRICE WHIDDEN, Royal Conservatory at Leipzig.
Viola—MR. CHARLES B. WIKEL, New York.
" MISS MABEL L. DAVIS, Boston.
Organ—MR. PERCY GORDON.
" MR. FRED N. CLARKE.
" MR. J. H. LOGAN.
Viola—MR. EDSON W. MORPHY.
Cello—MISS MABEL KANEEL.
Clarinet—MR. HARRY HANSON.
Coronet—MR. T. I. COVET.
Flute, Mandolin and Guitar—MR. JAMES IVIMEY.
String Bass—MR. HENRY STREETER.
Theory and Composition—MR. PERCY GORDON.
Harmony—MR. PERCY GORDON.
History of Music—REV. ROBERT LAING, M. A.

The classes in Theory, Composition, and Harmony, conducted by Mr. Gordon, and in History by Rev. R. Laing, are recognized by this University as qualifying for the Degree of Bachelor of Music.

The Conservatory opens on the first WEDNESDAY of SEPTEMBER, and closes on the last WEDNESDAY of JUNE in each year.

Applications for information should be addressed to the President, REV. ROBERT LAING, *Halifax, N. S.*

University Lists.

DEGREES.

Conferred December 18th, 1902.

DOCTOR OF LAWS.

(Honoris Causa).

HON. ALLAN FOLLOK, D. D. In recognition of his valuable services to Higher Education in Nova Scotia.

Conferred April 28th, 1903.

MASTER OF ARTS.

GRACE DEAN BURRIS, B. A.—By Examination in *Trigonometry*.
 CLARENCE VICTOR CHEINTE, B. A.—By Examination in *Pure and Applied Mathematics*.
 ANNIE MACKAY, B. A.—By Examination in *English and French History*.
 WILLIAM ROY MACKENZIE, B. A.—By Examination in *Trigonometry*.
 MALCOLM JAMES MATHIESON, B. A.—By Examination in *Kant and Moral Philosophy*.
 VERNON DOUGLAS REYNOLDS, B. A.—By Examination in *Ethics*.

BACHELOR OF ARTS.

HARRY HOPE BLOIS.....Halifax.
 JOHN ALEXANDER BRADLEY.....Princeton, Col.
 JAMES REGINOLD CARR.....Campbellton, N. B.
 WESLEY HERBERT COFFIN.....Bristol, P. E. I.
 ALFRED EDWARD DAVIS.....Dartmouth.
 FRANCIS JEAN LINDSAY.....Halifax.
 ENOS CHARLES LOCKE.....Lockeport.
 GEORGE WILLIAM LONCHHEAD.....Beaver Brook.
 RALPH MABEL MCCURDY.....Onslow Station.
 WILLIAM McDONALD.....Springville.
 EUPHEMIA MAY MACDOUGALL.....Truro.
 JAMES MALCOLM.....St. John, N. B.
 GUILFORD ROMEO MARSHALL.....Halifax.
 CHARLES WINFIELD MATHIESON.....Charlottetown, P. E. I.
 JOSEY GEDDIE MEEK.....Truro.
 ALEXANDER KEIR ROY.....Maitland.
 GARNETT GLADWIN SKIDGEMICK.....Middle Musquashobit.
 DANIEL MURRAY SMITH.....Truro.
 GILBERT SUTHERLAND STARRS.....Halifax.

HUGH McMILLAN UPHAM.....Halifax.
 WINIFRED MAY WEBSTER.....Waterville.
 ALEXANDER MCGILLIVRAY YOUNG.....Millville, Pictou Co.
 LUTHER LESGAR YOUNG.....Millville, Pictou Co.

BACHELOR OF SCIENCE.

EDWIN KNOWLES ARMSTRONG.....Granville Ferry.
 LAURIE BENJAMIN ELIOTT.....Dartmouth.
 JOHN ARCHIBALD FERGUSON.....Port Morien.
 GEORGE HENTLY GORDON.....Halifax.
 WILLIAM HORACE ROSS.....River John.

MASTER OF SCIENCE.

LOREN ARTHUR DEWOLFF, B. Sc.—By Thesis and Examination in *Geology*.

BACHELOR OF LAWS.

CHARLES DONALD LIVINGSTONE.....Black Brook, C. B.
 WILEY MCGILVERCK MANNING, B. A., (Acad.).....St. John, N. B.
 THOMAS MORE PRALAN, M. A., (S. F. X.).....Little Bras d'Or.
 JOHN EDWARD ASSAND MACKEDON, B. A., (Dal.).....Digswell, C. B.
 ADAM HENRY STEWART MURRAY, M. A., (Dal.).....Simsby, N. B.
 JOSEPH WILLIAM WELDON, B. A., (Dal.).....Pembroke, N. B.

DOCTOR OF MEDICINE AND MASTER OF SURGERY.

ANNIE, MINNA MAY, M. A., (Dal.).....Halifax.
 BRIDGAY, LESTER.....Murray Harbor, P. E. I.
 COFFEY, MELVILLE.....Savage Harbor, P. E. I.
 CRAWFORD, DANIEL McNEILL.....Wood Islands, P. E. I.
 EARLE, RICHARD WILLIAM LAURANCE.....Hampton, N. B.
 FORD, THEODORE REPERT.....Milton, Queens.
 HAWKWOOD, HARVEY DAVID.....Marriott's Cove, Chester.
 LAWSON, WILLIAM ALFRED.....Wallace, Cansh. [Lun.
 LESSEL, JOHN FREDERICK.....Halifax.
 MACCUNE, KENNETH ANSON.....St. Peter's, C. B.
 McIVER, JOHN ANSON.....South Cove, Victoria, C. B.
 MacKENZIE, KENNETH ALEXANDER.....Springhill, Cumberland.
 McLEOD, ALBERT CHURCHILL.....Milton, Queens.
 MORRISON, JOHN CHARLES.....Englishtown, C. B.
 MURRAY, DANIEL.....Meadowville, Pictou.
 NORWOOD, EDMUND BANERICK.....Hubbard's Cove, Halifax.
 POTTER, JACOB LESLIE.....Canning, Kings.
 RICE, GRACE ELIZABETH BERNARD, B. A., (Dal.).....Weymouth, Digby.
 WHITMAN, GEORGE WALTON.....Guysboro.
 WOODCROFT, FRANK VALENTINE.....Halifax.

HONOURS, MEDALS, Etc., 1902-3.

HONOURS.

Latin and English.

STAIRS, GILBERT SUTHERLAND High Honours.

Greek and English.

SEDEWICK, GARRETT GLADWIN High Honours.

English and History.

MACDOUGALL, EUPHEMIA MAY High Honours.

Pure and Applied Mathematics.

MCCREEDY, RABNO MARIE High Honours.

Chemistry and Chemical Physics.

ROSS, WILLIAM HORACE High Honours.

GENERAL DISTINCTION.

WEBSTER, WINIFRED MAY Distinction.

GRADUATE PRIZE AND MEDAL.

WEBSTER, WINIFRED MAY Avery Prize.

MACKENZIE, KENNETH ALEXANDER Medical Faculty Medal.

UNDERGRADUATES SCHOLARSHIPS AND PRIZES.

Junior Entrance Scholarships.

PENNINGTON, AMY K. Professor's Scholarship.
 LINDSAY, W. STEWART Sir Wm. Young Scholarship.
 GRANT, FREDERICK A Professor's Scholarship.
 BAINBRIDGE, WINIFRED G. Sir Wm. Young Scholarship.
 FRASER, HARRY C. MacKenzie Bursary.

Senior Entrance Scholarship.

BECROSS, LAURIE LOBNE Professor's Scholarship.

Special Prizes.

WATSON, A. D., } Waverley Prize (Mathematics).
 McLENSIE, B. J., }
 MacKAY, VICTOR NEIL Dr. Lindsay Prize. (Primary
 M. D., C. M.)
 HANKINE, JOHN, B. A. Frank Simpson Prize. (Chemistry
 and Materia Medica).

EXAMINATIONS, 1902-1903.

FACULTIES OF ARTS AND SCIENCE.

MATRICULATION.

BY EXAMINATION.

SENIOR.—*Passed:* Burgess, L. L.; Mages, Jean D.

Passed in certain subjects: Boak, G. A. J., in *Latin*; Davidson, M. D., in *Algebra* and *Trigonometry*; McCain, G. L., in *French* and *Algebra*; Thorne, H., in *Latin*; Young, L. L., in *Algebra* and *Geometry*.

JUNIOR.—*First Class Distinction:* Pennington, Amy Kingsland.

Second Class Distinction: Barnstead, Winifred G.; Billman, R. S.; Dyke, S. C.; Fraser, H. C.; Grant, F. A.; Layton, F. P. H.; Lindsay, W. S.; McIride, Ethel; Nichols, E. W.; Patterson, Gardia M.

Passed: Anderson, Maria; Broe, Laurence; Fraser, W. K.; Lord, Clara; Moffatt, Helen G.; Robinson, Grace; Ross, W. C.; Smith, W. M.

Passed in certain subjects: Anderson, S. C., in *Latin, French, History, Geography, and Geometry*; Coffin, W. H., in *Greek*; Creighton, J., in *Latin*; Devine, M. E., in *Latin and German*; Dickie, C. G., in *Geometry*; Hill, Olive Marie, in *Algebra*; Hudson, J. W., in *English, History and Geography*; Leighton, G. W., in *Latin, Greek, and Geometry*; MacDonald, W., in *Greek*; MacLeod, W. A., in *German*; MacDougall, Euphemia M., in *French*; Millar, J. M., in *German*; Robertson, R. K. H., in *Latin and Greek*; Stewart, J. M., in *Algebra*; Watson, A. D., in *German*.

MATRICULATED BY CERTIFICATE.

SENIOR.—*In all subjects:* Marshall, G. R.; Stapleton, W. C.; Cherran, J. H.

Partial: Linton, O. H.; Melonis, Euphemia; McInnis, B. J.; Turner, Christina J.; Munro, Ethel M.; Smith, F. F.; McLeod, R. N.; Williams, Mildred; Davidson, M. D.; Tait, W. D.

JUNIOR.—*In all subjects:* Bauld, W. A. G.; Lawrence, Mary G.; MacAloney, C. W.; McKay, D. A.; McKenzie, Mary L.; McLeary, F. H.; Faulkner, Dora G.; Morrow, J. B.; Swanson, P. I.

Partial: Barnes, A. J.; Bethune, B. A. J.; Blois, E. H.; Burns, R. C.; Burton, C. F.; Calder, Allister; Creighton, H. J.; Dickie, C. G.; Farquhar, Geo.; Fraser, Allister; Hall, R. M.; Hill, O. D.; MacLeod, C. G.; McLeod, W. A.; Morrison, E. S.; Robertson, R. B. H.; Sinclair, F. D.; Smith, J. H.; Stewart, J. M.; Walsh, J. D.; Watson, A. D.

SUPPLEMENTARY EXAMINATIONS.

LATIN.—*Third:* Young, A. M. (Dec.); Uphan, H. M. (Dec.)
First: Hill, Marie.

GREEK.—*Second:* McDonald, W. (Dec.); Smith, D. M. (April).
First: Decher, E. E. (Dec.); Ferguson, A. (Dec.); Ross, D. K. (Dec.); Coffin, W. H. (April).

ENGLISH.—Fourth: Longhead, G. W.; Blois, H. H.; Uphan, H. M.

PHILOSOPHY.—Senior: PAYZANT, A. S. **MIRAZZ**
Junior: MacKinn, G. A. B.

CHEMISTRY.—Junior: Murray, Lulu; Ferguson, J. A.

MATHEMATICS.—Geometry: Murray, Lulu; Laing, A. P.; Coffin, W. H.; Longhead, G. W.

Algebra: Achan, J. L.; MacKay, G. M. J.; Longhead, G. W.; Ferguson, J. A.

Analytic Geometry: Macdonald, C.

PHYSICS.—Junior: DAVIS, A. E.; Lindsay, Joan; Bradley, J. A.; Matheson, C. W.; McKay, D.; Moffish, J.

APPLIED MECHANICS.—Wilson, J. L.

DEGREE EXAMINATIONS.

CLASS LISTS.

Names in Classes I and II are in Alphabetical Order. Names in Pass List in order of Merit.

LATIN.

THIRD: *Class I*—Brehaut, L.; Corbett, W. M.; *Guedon, Wilhelmina; Haverstock, Alice M.; Johnson, A. C.; Lindsay, F. Jean; Power, W. K.; Stairs, G. S. *Class II*—Achan, J. L.; Davis, D. G.; Davis, A. E.; Webster, Winifred M. *Passed*—Brant, H. D.; Blanchard, C. P.; Malcolm, J.; Ballew, J. C.; Blois, H. H.; (Barris, Estella M.); Bayer, Harriet M.; Marshall, O. R.; Carney, J. M.; Campbell, Frances; Mackenzie, T. G.; Logan, F. B.; Begin, T. S.; (Creighton, G.); Macdonald, A. D.; Springour, J. A.; Read, G. C.; (Andrew, G. A.); Truman, J. M. *Passed the December Examination*—McNiven, Catherine; Smith, Olive. *Passed the April Examination*—Sutherland, R. H.

SECOND: *Class I*—McLean, M. C.; Neish, C. W. *Class II*—Charman, J. H.; Cumming, C. G.; Fraser, E.; Lawrence, C. S.; Miller, Dalmazy E.; Payzant, A. S.; Smith, F. F.; Tait, W. D. *Passed*—Williams, Mildred C.; Campbell, N. G.; Stanfield, Eleanor A.; Carsey, W. F.; (Munro, Ethel M.); Turner, Christina J. (McDonald, R. A.); Ross, W. M.; Toombs, H. W.; Baillie, C. T.; Gladwin, Alice P.; (Gerrard, Louise F.); Burgess, L. L.; Green, W. I.; (Forsythe, R. B.); Curry, W. A.; Ross, D. K.; Miller, H.; McInnis, R. J. *Passed the December Examination*—Ross, Lottie L. *Passed the April Examination*—Hill Muriel; Murray, Mabel; Harris, H. Joyce; Smith, A. A.; Thorne, H.; Murray, Lulu M.; McInnis, Euphemia.

FIRST: *Class I*—Fraser, H. C. *Class II*—Burnstead, Winifred G.; Faulkner, Dora G.; Grant, F. A.; Layton, F. P. H.; Lindsay, W. S.; Smith, W. M.; Swanson, P. I. *Passed*—Archibald, J. R.; McKennie, Mary L.; Stewart, J. M.; McLeod, A. A.; McDougall, E.; Robertson, R. B. H.; Hill, O. D.; (Farquhar, G.); Sinclair, F. D.; Macdonald, Zillah; Fraser, W. K.; Townsend, C. G.; (Barris, R. C.); McLaughlin, J. A.; (Creighton, H. J.; Lawrence, Mary Gladys); Dickie, C. G.; Bond, W. A. G.; Morrison, E. S.; Chisholm, H. D.; MacAulay, C. W. *Passed the December Examination*—Billman, R. *Passed the April Examination*—McKay, D. A.; Fraser, A.; McPherson, W.

GREEK.

THIRD: *Class I*—Brehaut, L.; Johnson, A. C.; Sedgewick, G. G. *Class II*—Davis, A. E. *Passed*—Achan, J. L.; Blanchard, C. P.; Blois, H. H.; Begin, T. S.; Andrew, G. A.

SECOND: *Class I*—McLean, M. C. *Class II*—Miller, Dalmazy E.; Neish, C. W.; Smith, F. F. *Passed*—Tait, W. D.; (Cumming, C. G.); Munro, Ethel M.; Campbell, N. G.; Toombs, H. W.; Ross, W. M.; Green, W. I.; Miller, H. *Passed the April Examination*—McKee, C.; Ross, D. K.

FIRST: *Class I*—Fraser, H. C.; Smith, W. M. *Class II*—Farquhar, G.; Lindsay, W. S.; McLeod, A. A.; Payzant, A. S. *Passed*—Robertson, R. B. H.; Layton, F. P. H.; Hill, O. D.; (McDougall, E.); Stewart, J. M.; Townsend, C. G.; Springour, J. A.; Crowds, C. J.; McDonald, R. A.; McPherson, W. *Passed the April Examination*—Lawrence, Mary G.

FRENCH.

THIRD: *Class I*—McKay, D. A.; McNiven, Catherine; Read, G. C.; Webster, Winifred A. *Class II*—Lawrence, C. S. *Passed*—Carney, M. J.; Matheson, C. W.; Perkins, Ella D.

SECOND: *Class I*—Faulkner, Dora G.; Stanfield, Eleanor A. *Class II*—Carsey, W. F.; Charman, J. H.; Fraser, E.; Gladwin, Alice P.; Harris, Helen Joyce; Miller, Dalmazy E.; Murray, Ella Mabel; Smith, F. F. *Passed*—Murray, Lulu Marson; Ross, Lottie Louise; Burnstead, Winifred; Manley, Clotilde; McKennie, Mary; McGillivray, A. A.; Curry, W. A.; Gerrard, Louise F.; Hill, O. Muriel; Baillie, Chas. T.; McInnis, R. J.; Blackwood, Florence; Burgess, L. L.; Davidson, M. Del.; Amberson, E. K.; Haliburton, A. F.; Woodbury, W. W.; McDonald, R. A.; McInnis, Euphemia; Ferguson, J. A.; McLeod, H. N.; Stapleton, W. C.; McLeod, H. H.

FIRST: *Class II*—Fraser, W. K.; Morrow, J. B. *Passed*—Sinclair, F. D.; Corbett, W. M.; Archibald, J. R.; Burton, C. F.; Dickey, C. G.; Macaloney, C. W.; Bond, W. A. G.; Morrison, E. S.; Anderson, S. C.; Fraser, A.; McLeod, W. A.; Urquhart, J. R.; Bethune, R. J.; Smith, A.; McLeod, C. G.

GERMAN.

THIRD: *Passed*—Ross, W.; Matheson, Ch. W.; Ferguson, J. A.; Gordon, Huntly; McLean, D.

SECOND: *Class I*—Webster, Winifred. *Class II*—McKay, D. A.; Munro, Ethel M.; Read, G. C.; Stairs, G. S.; Turner, Christina. *Passed*—Tait, W. D.; Marshall, G. R.; Elliot, L. B.; Davidson, M. D.; Williams, Mildred; McKay, G. M. J.; Lindsay, Joan; Forsythe, R.; Ferguson, J. A.; McLean, D.; McLeod, W. A.; Miller, J. M.; Stapleton, W. E.; Brunt, H. D.; Davis, C. J.; Parker, G. H.

FIRST: *Class I*—Swanson, S. *Class II*—Gordon, Wilhelmina. *Passed*—Barris, Ethel M.; Linton, O. H.; Manley, Clotilde; Campbell, N. G.; Creighton, H. J.; Burgess, L. L.; Barris, A. J.; McLearn, F. H.; Kelly, W. L.; Burton, C. F.; Chisholm, A. D.; Watson, A. D.

* High First Class.

* High First Class.

ENGLISH.

THIRD: *Class I*—Brehaat, L.; Brent, H. D.; Coebett, W. M.; Gordon, Wilhelmina; Power, W. K.; Sedgewick, G. G.; Stairs, G. S. *Class II*—Campbell, M. P. D.; Haverstock, A. M.; Macdonald, E. M. *Passed*—Johnson, A. C.; Malcolm, J.; Bayer, H. M.; Davis, C. D.; Lindsay, F. J.; Webster, W.; Ferguson, J. A.; Blois, H. H.; McNiven, C.; Smith, D.; Macdonald, A. D.

SECOND: *Class I*—Charman, J. H.; Forsythe, R. B.; Lawrence, C. S.; McKay, D. A. *Class II*—Baillie, C. T.; Cumming, C. G.; Green, W. I.; McLean, M. C.; Fraser, E. *Passed*—Stanfield, R. A.; Macdonald, R. A.; Campbell, N. G.; Tait, W. D.; Harris, H. A. J.; Miller, D. E.; (Watson, D. A.; Woodbury, W. W.) Blois, E. J.; Smith, F. F.; (Murray, L. M.; Neish, C. W.; Toombs, W. H.) Peppard, S.; Macintosh, C. R.; Gladwin, L. F.; Kelly, W. M.; McInnis, R. J.; Munro, E. M.; (Alderson, M.; Ross, W. L.) (Carney, W. F.; Gerard, L.; McCain, G. L.; Macdonald, Z.) (Ross, D. K.; Ross, W. H.; Stapleton, W. C.; Williams, M. C.) (Burgess, L. L.; Miller, H.; Murray, M. E.) (McInnis, E.; Ross, L. L.) McGillivray, A. A.

FIRST: *Class I*—Fraser, H. C.; McKay, D. A. *Class II*—Faulkner, Dora G.; *Passed*—Blois, E. H.; Lawrence, Mary G.; McDougall, E.; Robertson, R. B. H.; Farquhar, G.; Barnstead, Winifred G.; Smith, W. M.; Macdonald, Zillah; (McLellan, J. A.; Townsend, C. G.) (Caldar, A.; Chisholm, H. D.; Hall, R. M.) (McPherson, W. M.; Sinclair, E. D.) Mackenzie, Mary L. (Archibald, J. R.; Dickie, C. G.) Layton, F. F. H.; (MacIntosh, C. W.; McLean, F.) (Beaton, J. M.; Logan, J. H.) (Burton, C. F.; McLeod, A. A.; Stewart, J. M.) (Hill, O. D.; Lindsay, W. S.) (Barnes, A. J.; Bethune, R. J.; Crighton, H. J.; Morrow, J. B.; Smith, J. N.) (Ezeld, W. A. G.; Fraser, A.) Grant, A.

BIBLICAL LITERATURE.

Class I—Carr, J. B. *Class II*—Burrin, Estella M.; Webster, Winifred M. *Passed*—Spencer, Minnie; (Smith, F. F.; Young, L. L.) (MacKean, G. A. R.; Smith, D. M.; McLellan, J. A.)

HISTORY.

SENIOR: *Class I*—McDougall, Ephensia; Davis, A. E. *Class II*—Webster, Winifred. *Passed*—Malcolm, James; Urquhart, H. D.; Coffin, W. H.; Smith, D. M.; Lindsay, Frances J.

JUNIOR: *Class I*—Ballein, J. C.; Bayer, Harriet M.; Blackwood, E. Florence; Campbell, Margaret F.; McKenzie, T. G.; *Brown, W. K.; Ross, E. B. *Passed*—Brent, H. D.; Barris, Estella M.; Manley, Charles J.; Blackburn, C. P.; Davis, D. G.; Ferguson, Alexander; Springour, J. A.; Begie, T. S.; Marshall, G. R.; Reid, G. C.; Achan, J. L.; McNiven, Catherine; Carney, M. J.; Logan, F. R.; Young, L. L.; Perkins, Ella; Andrews, G. A.; Hudson, J. W.; McKean, G. B.; Langille, G. W.; Sutherland, R. H.; McDonald, A. D.; Truesman, J. M.; Crighton, G.

ADVANCED: *Passed*—Davis, A. E.

* High First Class.

† Conditionally.

‡ Without "additional" work.

POLITICAL ECONOMY.

Class I—Forsythe, R. B.; Ferguson, Alexander; *Passed*—Matheson, C. W.; Fraser, E.; Marshall, G. R.; Toombs, H. W.; Ballou, J. C.; Ross, D. K.; Carr, J. B.; Young, L. L.; Upham, H. M.; Meek, J. G.; Neish, C. W.; Roy, A.; Logan, F. R.; Loughd, G. W.; Smith, A. A.

ADVANCED: *Class II*—Davis, A. E.

PHILOSOPHY.

ADVANCED: *Class I*—Macpherson, M. J.; *Class II*—Christie, G. A.; Kent, H. A.

GREEK: *Class I*—Crowdie, C. J.; Ross, E. B. *Class II*—Bayer, Hattie M.; Christie, G. A.; Gordon, Wilhelmina; Spencer, Minnie G. *Passed*—Brent, H. D.; Brehaat, L.; Sedgewick, G. G.; Davis, A. E.; Meek, J. G.; Loughd, G. W.; Malcolm, J.; Carr, J. B.; Smith, Olive W.; Campbell, M. Prizoso D.; Ferguson, A.; Upham, H. M.; Truesman, J. M.; Webster, Winifred M.; Gardner, G. S.; Smith, A. A.; Lindsay, F. Jean; Hudson, J. W.; McLean, C.; Andrew, G.; Perkins, Ella D. *Special Examinations*—Johnson, A. C.

MODERN: *Class I*—Crowdie, C. J.; Ross, E. B. *Class II*—Ferguson, A. *Passed*—Brent, H. D.; Matheson, C. W.; Springour, J. A.; Young, L. L.; Davis, D. G.; Malcolm, J.; Upham, H. M.; Crighton, G.; Ferguson, J. A.; Hudson, J. W. *Special*—Meek, J. G.

JUNIOR: *Class I*—Campbell, N. G.; McLean, M. C.; Tait, W. D. *Class II*—Fraser, E.; Green, W. I.; Marshall, G. R.; Toombs, H. W. *Passed*—Payzant, A. S.; Cumming, C. G.; Harris, H. Joyce; Williams, Mildred C.; McDonald, R. A.; Neish, C. W.; Stanfield, Eleanor A.; Baillie, C. T.; McIntosh, C. R.; Munro, Ethel M.; Charman, J. H.; Lawrence, C. S.; Forsythe, R. B.; Smith, F. F.; Davidson, M. D.; McLean, Ephensia; Miller, H.; Carney, W. F.; Ross, D. K.; Ross, W. M.; McInnis, H. J.; Gladwin, Alice P.; Carr, W. A.; Hill, O. David; McCain, G. L.; Macleod, W. A.; Turner, Christina J.; Murray, E. Mabel; Peppard, Sadie I.; Murray, Lulu M.; Gerard, Leslie F. *In Logic*—Townsend, C. G. *Special*—Ross, Lottie L.

EDUCATION.

Class I—Crighton, G.; Roy, A. K. *Class II*—Kent, H. A. *Passed*—Locks, E. C.; Carr, J. B.; Blois, H. H.; Fultz, G. W.; Crowdie, C. J.; Meek, J. G.; Upham, H. M.; Loughd, G. W.; Young, L. L.; Langille, G. W.

HALF COURSE: *Class I*—Fraser, H. J.; Myers, A. J. W. *Class II*—Layton, R. B.; Christie, G. A.; Nicholson, D. J. *Passed*—Stavert, R. H.; McQueen, N. T.; Gardner, G. S.

MATHEMATICS.

ADVANCED: *Class I*—Gordon, G. H.

SECOND: *Class I*—McInnis, R. J.; Watson, A. B. *Class II*—Burgess, G. L.; Carney, M. C.; Christie, C. V.; Locks, E. C.

Maclean, D.; Maclean, M. *Passed*—Linton, O. H.; Curry, W. A.; Cumming, C. G.; McLeis, E.; Davis, C. J.; Peppard, S. *Passed in Analytic Geometry*—Stapleton, W. C. *Passed in Differential Calculus*—MacKenzie, T. G. *Passed in Differential and Integral Calculus*—Harris, H. J.; Urquhart, J. *Passed in Analytic Geometry and Integral Calculus*—Parker, G. H.

FIRST: *Class I*—Urquhart, G.; Lindsay, W. S. *Class II*—Archibald, J. R.; Barnes, A. J.; Barnstod, W.; Bethune, R.; Blois, E. H.; Creighton, H. J.; Faulkner, D. G.; Hill, O. D.; Layton, F. H.; MacAloney, C. W.; McDougall, E.; MacKay, D. A.; McLearn, F.; McLellan, J. A.; Pennington, A. K. *Passed*—Fraser, A.; McKenzie, M. L.; Burton, C. F.; (Lawrence, M. G.); McLeod, A. A.; Smith, A. D.; Fraser, H. C.; Burns, R. C.; (Fraser, W. K.); Hall, R. M. J.; (Smith, W. M.); Swanson, E. J.; (Beaton, J.; Robertson, R. B. H.); Anderson, S. C.; Bauld, W. G. *Passed in Trigonometry*—Billman, R. S. *Passed in Geometry*—Caldor, A.; McLeod, C.; McPherson, W.; Sinclair, F.; Urquhart, J. R. *Passed in Geometry and Algebra*—Stewart, J. M.; Dickie, C. G.; Morrow, J. B. *Passed in Geometry and Trigonometry*—Grant, F. A.; MacIntosh, C. R.; McLeod, H. H.

PETITION.

SENIOR: *Class II*—Ross, W. H. *Passed*—McCurdy, R. Mabel; Gordon, G. H.; McKay, G. M. J.; Elliott, L. B.; McLean, D.

JUNIOR: *Class I*—Linton, O. H. *Class II*—Blackwood, Florence; Carney, M. J. *Passed*—Davis, C.; Burgess, L.; Campbell, Primrose; Read, G. C.; Stapleton, W. C.; Logan, R. F.; Baillie, C. T.; Ferguson, A.; Miller, J. M.; Davis, D.; Bayer, Harriett; Longhead, G.; Spencer, Mary; Blanchard, C. P.; Watson, A. D.; Davidson, M. D.; Woodbury, W. W.; Springgour, J. A.; Bailon, J. C.; Achan, J. L.; McKay, G. M. J.; Andrew, G. A.; McKenzie, T.; Harris, Estella; Payzant, A. S.; Longlie, G.; Parker, G. H.; Sutherland, B. H. *Special Examination:* *Passed*—McKay, D.; Mollish, J. M. *Supplementary Examination:* *Passed*—Bradley, J.; Lindsay, Jean; Matheson, C. M.

SENIOR PRACTICAL: *Class II*—Gordon, G. H.; Ross, W. H.

JUNIOR PRACTICAL: *Class II*—Linton, O. H.; Woodbury, W. W.; McKay, G. M. J. *Passed*—MacInnes, C.; Fultz, E. W.; Marshall, G. R.; Falton, T.; Elliott, L. B.; Urquhart, J.

APPLIED MECHANICS.

Class II—McLean, S. C. *Passed*—Gordon, G. H.; Urquhart, J.; Elliott, L. B. *Supplementary Examination:* *Passed*—Wilson, J. L.

CHEMISTRY.

SENIOR: *Class I*—None. *Class II*—None. *Passed*—Webb, W. G.; (Sutherland, B. H.); Young, A. McG.; Ambersman, E. K.; Coffin, W. H.; Logan, F. B.

JUNIOR: *Class I*—Bailon, J. C.; Bethune, R.; Burgess, L. L.; Charman, J. H.; Creighton, J.; Lindsay, W. S.; Stapleton, W. C. *Class II*—Barnes, A. J.; Davidson, M.; Linton, O. H.; Tait, W. D.

Passed—McLearn, F. H.; Blois, E. H.; Burton, C. F.; (McLeod, R. N.; Swanson, P. L.); Blanchard, C. P.; Fraser, H. C.; (Hall, R. M.; Kelly, W. L.; MacLeod, C. G.); Archibald, J. R.; (Lawrence, Gladys; McLeod, H. H.); (McInnis, R. J.; Manley, Clotilde J.); Morrow, J. B.; (Haverstock, Alice; Hill, O. D.); Chisholm, H. D.; McLeis, Eugenia; Robertson, R. B. H.; Smith, A. D.; (Faulkner, Dora G.; McLeod, A.); Stewart, J. M.; (Barnstod, Winifred); Fraser, Alister; McDougall, Ewen J.; Urquhart, G.; MacAloney, C. W.; McKenzie, Mary L.; Layton, F. P. H.; Barnes, R. G.; McLellan, J. A.; (Sinclair, F. D.; Smith, W. M.); Dickie, C. G.; Munro, Ethel; Grant, Fred A.

SENIOR CHEMISTRY (MINING): *Passed*—Falton, T. T.

ADVANCED PRACTICAL CHEMISTRY: *Class I*—Blackwood, Florence; MacKay, G. M. J.; McLean, S. C.

ZOOLOGY.

Class II—Ambersman, E. K.; Coffin, W. H.; Locke, E. C.; Matheson, C. W.; Roy, A. K.; Smith, D. M.; Young, A. M.; *Passed*—Longhead, G. W.; Sutherland, B. H.

BOTANY.

Class II—Ambersman, E. K.; Locke, E. C. *Passed*—Coffin, W. H.; Blois, H. H.; Roy, A. K.; Sutherland, B. H.; Young, A. M.; Bailon, J. C.; Green, W. I.

Passed—Coffin, W. H.

HISTOLOGY.

Passed—Coffin, W. H.

PHYSIOLOGY.

ELEMENTARY GEOLOGY.

Class II—Falton, T. T.; Mackenzie, F. S.; McLean, S. C. *Passed*—Creighton, G.; Smith, D. M.

ADVANCED GEOLOGY.

Passed—Falton, T. T.

MINERALOGY.

Class II—McLean, S. C.; Ross, W. H. *Passed*—Elliott, L. B.

DESCRIPTIVE GEOMETRY.

Class II—Blois, E. H. *Passed*—Kelly, W. L.; McLearn, F. H.; Urquhart, James; Burton, C. F.

JUNIOR SURVEYING.

Passed—McLean, S. C.; Watson, A. D.; Falton, T. T.; Urquhart, J.

HYDRAULIC ENGINEERING.

Passed—McLean, S. C.; Urquhart, James.

FACULTY OF LAW.
DEGREE EXAMINATIONS.

CLASS LISTS.

NOTE.—The names in Class I are placed in order of merit; the pass list is arranged in alphabetical order and gives no indication of the relative merits of the candidates.

INTERNATIONAL LAW.

Class I.—MacLeod, J. E. A.; Weldon, J. W.; Phelan, T. M. *Passed*.—Livingstone, C. D.; Moseley, H. C.; Murray, A. H. S.

CONFLICT OF LAWS.

Class I.—Weldon, J. W.; Manning, W. McC. *Passed*.—Bell, I. H.; Cameron, J. McK.; Cheese, G. O.; Dickie, H. Alan; Harrington, G. S.; Haviland, J. A.; Livingstone, C. D.; MacLeod, J. E. A.; Mougher, T. J. N.; Moseley, H. C.; Murray, A. H. S.; Phelan, T. M.; Rabston, J. L.

EVIDENCE.

Class I.—Miller, J. L.; Trites, R.; Carroll, W. F.; Harrington, G. S.; Robertson, W. McC. and Weldon, J. W., equal; Cameron, J. McKay. *Passed*.—Bell, I. H.; Cameron, J. J.; Cheese, G. O.; Dickie, H. Alan; Gilpin, T. B.; Livingstone, C. D.; MacLeod, J. E. A.; Manning, W. McC.; Mougher, T. J. N.; Morrison, J. W. G.; Mounon, R. B.; Murray, A. H. S.; Phelan, T. M.; Redmond, J. A.; Roscoe, B. W.

EQUITY.

Class I.—(Robertson, W. McC. and Weldon, J. W., equal); Cameron, J. McK.; Trites, R.; Carroll, W. F.; Roscoe, B. W.; Miller, L. J.; Murray, A. H. S.; Manning, W. McC. *Passed*.—Bell, I. H.; Cameron, J. J.; Cheese, G. O.; Dickie, H. Alan; Gilpin, T. B.; Harrington, G. S.; Livingstone, C. D.; Mougher, T. J. N.; Mounon, R. B.; Morrison, J. W. G.; Phelan, T. M.; Redmond, J. A.

SALES.

Class I.—MacLeod, J. E. A.; Robertson, W. McC.; Miller, L. J.; Trites, R.; Weldon, J. W.; Roscoe, B. W.; Phelan, T. M. *Passed*.—Bell, I. H.; Cameron, J. J.; Cameron, J. M.; Carroll, W. F.; Cheese, G. O.; Gilpin, T. B.; Harrington, G. S.; Livingstone, C. D.; Manning, W. McC.; MacDonald, Elmore; Mougher, T. J. N.; Morrison, J. W. G.; Mounon, R. B.; Murray, A. H. S.; Redmond, J. A.

CONSTITUTIONAL LAW.

Class I.—Trites, R.; Robertson, W. McC.; Roscoe, B. W.; Cameron, J. McK.; Bell, I. H.; Manning, W. McC. *Passed*.—Cameron, J. J.; Carroll, W. F.; Cheese, G. O.; Dickie, H. Alan; Harrington, G. S.; Mougher, T. J. N.; Miller, L. J.; Mounon, R. B.; Redmond, J. A.

SHIPPING.

Class I.—Robertson, W. McC.; Cameron, J. McK.; Miller, L. J.; Harrington, G. S.; Carroll, W. F. *Passed*.—Bell, I. H.; Cameron, J. J.; Cheese, G. O.; Dickie, H. Alan; McDonald, Elmore; Mougher, T. J. N.; Morrison, J. W. G.; Redmond, J. A.

CRIMES.

Class I.—Trites, R.; MacKay, R. G.; Shaw, V. H.; (Mounon, R. B. and McLennan, D., equal); Roscoe, B. W. *Passed*.—Bown, A. B.; Corey, R. S.; Dickie, H. Arthur; Eager, M. W.; Feeney, L. H.; Foster, W. G.; Gilpin, T. B.; MacDonald, Elmore; Morrison, J. W. G.; Moulton, G. A.; Wood, John.

TORTS.

Class I.—Roscoe, B. W.; MacKay, R. G.; Mounon, R. B.; McLennan, D.; Trites, R.; Shaw, V. H.; Feeney, L. H. *Passed*.—Chubb, E.; Corey, R. S.; Dickey, H. Arthur; Eager, M. W.; Foster, W. G.; Gilpin, T. B.; Maclean, D.; Morrison, J. W. G.; Moulton, G. A.; Wood, J. B.

CONTRACTS.

Class I.—Shaw, V. H.; Wood, John; McLennan, D. *Passed*.—Corey, R. S.; Dickey, H. Arthur; Feeney, L. H.; Foster, W. G.; MacKay, R. G.; Maclean, D.; Morrison, J. W. G.

CONSTITUTIONAL HISTORY.

Class I.—Locke, E. C.; MacKenzie, T. G.; Shaw, H. V.; Ross, E. B. *Passed*.—Achan, J. L.; Corbett, W. M.; Corey, R. S.; Feeney, L. H.; Foster, W. G.; Dickie, H. Alan; Longhead, G. W.; MacGillivray, A. A.; MacKay, R. G.; Maclean, D.; McLennan, D.; Meek, J. G.; Miller, H.; Moulton, G. A.; Roy, A. R.; Smith, D. M.; Upland, H. M.; Wood, J.

FACULTY OF MEDICINE.

GENERAL PASS LIST.

(Alphabetical Order).

PRIMARY B. D. C. M., EXAMINATION.

Section "A"—First Year.

Amberman, E. K.; Coffin, W. H.; Devine, M. E.; Donovan, O. G.; Dunn, G. A.; Forbes, A. E. G.; Hardy, A. N.; Henniger, Annie; Killan, H. E.; McPae, D. B.; Melanson, A. B.; *Murray, W. D.; Urquhart, H. D.; *Wallace, P. J.; Walsh, C. E.

Section "B"—Second Year.

Blackadder, Edw.; *Buckley, C. E. A.; DeCote, S. H.; MacDonald, T. G.; McIntosh, G. A.; MacKay, V. N.; *MacKenzie, Eliza M.; *Messinger, Stella M.; Miller, A. W.; Murray, J. A.; Proudfoot, J. A.; *Wallace, P. J.

FINAL B. D. C. M., EXAMINATION.

Section "A"—Third Year.

Buckley, C. E. A.; Champion, J. B.; *Crawford, D. McN.; Cunningham, A. R.; Farquharson, W. O.; *Furd, T. R.; *Fuller, L. O.; Haedy, G. S.; Jardine, F. W.; Johnson, T. B.; MacAulay, M. A.; MacDonald, T. H.; MacKenzie, Eliza M.; MacKenzie, Jennina; Messinger, Stella M.; Miller, A. F.; Mureo, Blanche M.; *Norwood, E. B.; Rankins, John; *Woodbury, F. V.

* Suppl. Exams, Sept. 1902.

† Suppl. Exams, April, 1903.

Section "B"—Fourth Year.

Anstou, Minna M.; Brochant, Lester; Coffin, Melville; Crawford, D. McN.; Earle, R. W. L.; Ford, T. R.; Hawbodd, H. D.; Lawson, W. A.; Lessel, J. F.; MacCaish, K. A.; Melver, J. A.; MacKenzie, K. A.; McLeod, A. C.; Morrison, J. C.; Murray, David; Norwood, E. B.; Potter, J. L.; Rice, Grace E. R.; Whitman, G. W.; Woodbury, F. V.

DEGREE EXAMINATIONS.

CLASS LISTS.

(Order alphabetical).

MEDICAL PHYSICS.

Distinction—Killam, H. E.; Melanson, A. R.

Passed—Boudreau, P. E.; Devine, M. E.; Donovan, O. G.; Dunn, G. A.; Forbes, A. E. G.; Hardy, A. N.; Hennigar, Annie; McRae, D. R.; Smith, C. V.; Walsh, C. E.

Supplementary, Sept., 1902—Murray, W. D.

JUNIOR CHEMISTRY.

Distinction—Devine, M. E.; Dunn, G. A.; Melanson, A. R.

Passed—Coffin, W. H.; Donovan, O. G.; Hardy, A. N.; Hennigar, Annie; Killam, H. E.; Lyons, J. C.; Macdonald, A. V.; McRae, D. R.; Robbins, E. E.; Smith, C. V.; Walsh, C. E.; Young, A. M.; Ferguson, J. A.

Special, April, 1903—Urquhart, H. D.

Supplementary, Sept., 1902—Wallace, P. J.

ELEMENTARY BIOLOGY.

Distinction—Forbes, A. E. G.; Hardy, A. N.; Urquhart, H. D.

Passed—Amberman, E. K.; Boudreau, P. E.; Coffin, W. H.; Devine, M. E.; Donovan, O. G.; Goodwin, J. C.; Hennigar, Annie; Killam, H. E.; Lyons, J. C.; Macdonald, A. V.; MacLeod, D. J.; McRae, D. R.; Melanson, A. R.; Robbins, E. E.; Smith, C. V.; Walsh, C. E.; Young, A. M.

Special (Zoology), April, 1903—Dunn, G. A.

JUNIOR ANATOMY.

Distinction—Coffin, W. H.; Devine, M. E.; Dunn, G. A.; Hennigar, Annie; Macdonald, A. V.; Melanson, A. R.; Robbins, E. E.

Passed—Amberman, E. K.; Boudreau, T. E.; Donovan, O. G.; Forbes, A. E. G.; Goodwin, J. C.; Hardy, A. N.; Killam, H. E.; Lyons, J. C.; MacLeod, D. J.; McRae, D. R.; Ross, W. D.; Urquhart, H. D.

* Special Exam., Sept., 1902.

† Suppl. Exam., Sept., 1902.

PHYSIOLOGY AND HISTOLOGY.

Distinction—None.

Passed—Amberman, E. K.; Blackadder, Edw.; DeCoste, S. H.; Macdonald, T. G.; McIntosh, G. A.; MacKay, V. N.; MacKenzie, Mary; Miller, A. W.; Murray, J. A.; Proudfoot, J. A.

Special, April, 1903—Pilot, F. W. H.

Supplementary, Sept., 1902—MacKenzie, Eliza M.; Messinger, Stella M.; Wallace, P. J.

Supplementary, April, 1903—Buckley, C. E. A.

SENIOR CHEMISTRY.

Distinction—MacKay, V. N.

Passed—Blackadder, Edw.; DeCoste, S. H.; Ferguson, J. A.; Macdonald, D. R.; Macdonald, T. G.; McIntosh, G. A.; Miller, A. W.; Murray, J. A.; Murray, W. D.; O'Connell, J. L.; Proudfoot, J. A.; Woodbury, W. W.

Supplementary, April, 1903—Buckley, C. E. A.; MacKenzie, Eliza M.; Messinger, Stella M.; Wallace, P. J.

SENIOR ANATOMY.

Distinction—MacKay, V. N.; MacKenzie, Mary.

Passed—Blackadder, Edw.; DeCoste, S. H.; Macdonald, D. R.; Macdonald, T. G.; McIntosh, G. A.; Miller, A. W.; Murray, J. A.; Murray, W. D.; O'Connell, J. L.; Pilot, F. W. H.; Proudfoot, J. A.

Supplementary, Sept., 1902—Wallace, P. J.

MATERIA MEDICA AND THERAPEUTICS.

Distinction—Champion, J. B.; Cunningham, A. R.; Farquharson, W. O.; Hardy, Geo. S.; Jardine, F. W.; MacKenzie, Eliza M.; MacKenzie, Jeannina; Munro, Blanche M.; Rankine, John.

Passed—Buckley, C. E. A.; Johnson, T. R.; MacAulay, M. A.; Macdonald, T. H.; Messinger, Stella M.; Miller, A. F.

Special, Sept., 1902—Dickey, E. E.; Ford, T. R.

Supplementary, Sept., 1902—Crawford, D. McN.; Fuller, L. O.; Norwood, E. B.

PATHOLOGY AND BACTERIOLOGY.

Distinction—Hardy, Geo. S.; Jardine, F. W.

Passed—Buckley, C. E. A.; Champion, J. B.; Cunningham, A. R.; Farquharson, W. O.; Johnson, T. R.; MacAulay, M. A.; Macdonald, T. H.; MacKenzie, Eliza M.; MacKenzie, Jeannina; Messinger, Stella K.; Miller, A. F.; Munro, Blanche M.; Rankine, John.

Special, Sept., 1902—Ford, T. R.

Supplementary, Sept., 1902—Crawford, D. McN.; Fuller, L. O.; Woodbury, F. V.

MEDICAL JURISPRUDENCE AND HYGIENE.

Distinction—Cunningham, A. R.; Jardine, F. W.; Munro, Blanche M.; Rankine, John.

Passed—Buckley, C. E. A.; Champion, J. B.; Farquharson, W. O.; Farly, Geo. S.; Johnson, T. R.; MacAulay, M. A.; Macdonald, T. H.; MacKenzie, Eliza M.; MacKenzie, Juliana; Messenger, Stella M.; Miller, A. F.

Special, Sept., 1907—Dickey, E. E.; Ford, T. R.

SURGERY.

Distinction—MacKenzie, K. A.

Passed—Austin, Minna M.; Brebant, Lester; Coffin, Melville; Crawford, D. McN.; Dickey, E. E.; Earle, R. W. L.; Ford, T. R.; Hawboldt, H. D.; Lawson, W. A.; Lessel, J. F.; MacCubish, J. F.; McIver, J. A.; McLeod, A. C.; Morrison, J. C.; Murray, Daniel; Norwood, E. B.; Potter, J. L.; Rice, Grace E. B.; Whitman, G. W.; Woodbury, F. V.

CLINICAL SURGERY.

Distinction—Austin, Minna M.; Brebant, Lester; Coffin, Melville; Hawboldt, H. D.; Lawson, W. A.; Lessel, J. F.; MacKenzie, K. A.; McLeod, A. C.; Morrison, J. C.; Murray, Daniel; Norwood, E. B.; Potter, J. L.; Whitman, G. W.; Woodbury, F. V.

Passed—Crawford, D. McN.; Dickey, E. E.; Earle, R. W. L.; Ford, T. R.; Fuller, I. O.; MacCubish, K. A.; McIver, J. A.; Rice, Grace E. B.

MEDICINE.

Distinction—MacKenzie, K. A.; Murray, Daniel.

Passed—Austin, Minna M.; Brebant, Lester; Coffin, Melville; Crawford, D. McN.; Dickey, E. E.; Earle, R. W. L.; Ford, T. R.; Hawboldt, H. D.; Lawson, W. A.; Lessel, J. F.; MacCubish, K. A.; McIver, J. A.; McLeod, A. C.; Morrison, J. C.; Norwood, E. B.; Potter, J. L.; Rice, Grace E. B.; Whitman, G. W.; Woodbury, F. V.

CLINICAL MEDICINE.

Distinction—Earle, R. W. L.; Lawson, W. A.; Lessel, J. F.; MacKenzie, K. A.; Morrison, J. C.; Murray, Daniel.

Passed—Austin, Minna M.; Brebant, Lester; Coffin, Melville; Crawford, D. McN.; Dickey, E. E.; Ford, T. R.; Hawboldt, H. D.; MacCubish, K. A.; McIver, J. A.; McLeod, A. C.; Norwood, E. B.; Potter, J. L.; Rice, Grace E. B.; Whitman, G. W.; Woodbury, F. V.

OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

Distinction—None.

Passed—Austin, Minna M.; Brebant, Lester; Coffin, Melville; Crawford, D. McN.; Dickey, E. E.; Earle, R. W. L.; Ford, T. R.; Hawboldt, H. D.; Lawson, W. A.; Lessel, J. F.; MacCubish, K. A.; McIver, J. A.; MacKenzie, K. A.; McLeod, A. C.; Morrison, J. C.; Murray, Daniel; Norwood, E. B.; Potter, J. L.; Rice, Grace E. B.; Whitman, G. W.; Woodbury, F. V.

STUDENTS, 1902-1903.

FACULTY OF ARTS.

(The number in some cases affixed to the name, indicates the number of years attended by the student as a candidate for a degree.)

Acham, Joseph Leon, 3	Trinidad, W. I.
Anderson, Sedley Cantrell, 1	Halifax.
Andrew, George Allen, 3	Arischat, C. B.
Archibald, James Ross	Truro.
Astell, Godfrey Elmsker	Halifax.
Baillie, Charles Papper, 2	Halifax.
Balfour, John Munro	Westville.
Ballem, John Cedric, 3	Mount Allison, P. E. I.
Barnes, Albert Johnson, 1	Halifax.
Barnstead, Winifred Glen, 1	Montreal.
Bask, William Alfred Gordon, 1	Halifax.
Bayer, Harriet Muir, 3	Halifax.
Beaton, John McLean, 1	North Sydney.
Beggs, Thurston Stanley, 3	Halifax Bay.
Billman, Ralph Sanderson, 1	Halifax.
Blackwood, Elizabeth Florence, 3	Halifax.
Blanchard, Charles Prescott, 3	Truro.
Bliss, Harry Hope, 4	Halifax.
Boak, Godfrey James Alexander, 2	Halifax.
Bradley, John Alexander, 4	Princeport, Col.
Brebant, Louis, 3	Murray Harbour, P. E. I.
Brent, Howard Dwyer, 3	Halifax.
Burgess, Laurie Lewis, 2	Kinoman's Corners.
Burns, Ralph Chester, 1	Milltown, N. B.
Burris, Estella Mabel, 3	Lower Masquodouit.
Burris, Grace Dean, B. A.	Colchester.
Burton, Charles Ferguson, 1	Middleton.
Cabler, Alister, 1	Springville.
Campbell, Jessie Bell, B. A.	St. Paul's Island.
Campbell, Margaret Penrose Dickson, 3	Tatamagouche.
Campbell, Norman Garfield, 2	Windsor, N. S.
Carney, Michael James, 3	Halifax.
Carney, William Froelich, 2	Halifax.
Carr, James Beattie, 4	Campbellton, N. B.
Charman, James Harry, 2	Wallace.
Chateaufort, Robert Willis	Montreal.
Chisholm, Hugh Dan	Springville.
Christie, Clarence Victor, B. A.	Halifax.
Christie, George Archibald, B. A.	Halifax.
Coffin, Wesley Herbert, 4	Estabrook, P. E. I.
Corbett, William Melville	Blackville, N. B.
Conway, Isabella Holton	Springhill.
Creighton, Graham, 3	Halifax.
Creighton, Henry Jeremiah, 1	Dartmouth.
Crowdis, Charles Jacob, 3	Margrove, C. B.
Cumming, Charles Gordon, 2	Westville.
Curry, William Allan, 2	Halifax.
Davis, Charles James, 2	Grey-shorn.
Davis, David Gray, 3	Elton.
Davies, Alfred Edward, 4	Dartmouth.

Dickie, Clarence Godol, 1	Truro.
Dunbar, George, 1	Newport.
Faulkner, Dora Gaille, 1	Halifax.
Ferguson, Alexander, 3	Port Morien.
Ferguson, Lillie Irene	Port Morien.
Flomming, Floss	Halifax.
Forbes, Arthur Edward Grant	Little Harbour.
Forsythe, Robert Bell, 2	Alberton, P. E. I.
Frame, Emma Margaret	Shelburneville.
Fraser, Abster, 1	New Glasgow.
Fraser, Everett, 2	North Lake, P. E. I.
Fraser, Harry Clement, 1	York Co., N. B.
Fraser, Hugh James	Pictou.
Fraser, William Kenneth, 1	Halifax.
Fulton, George William	Lower Sackville.
Gardner, George S.	Richibucto, N. B.
Gerrard, Louisa Frances, 2	Hazel Hill.
Gladwin, Alice Pearson, 3	Truro.
Gordon, Wilhelmina, 3	Halifax.
Groat, Frederick Alpin, 1	Halifax.
Green, William Imc, 2	Clifton, P. E. I.
Hamilton, Winifred	Halifax.
Harris, Helen Joyce, 2	Halifax.
Haverstock, Alice Maude, 3	Halifax.
Hill, Muriel Olive, 2	Halifax.
Hill, Otis Drake, 1	Upper Masquodiboit.
Hudson, John William, 3	Essex.
Johnson, Allan Chester, 3	Leah Becon.
Kent, Harry Arnold, B. A.	Truro.
Langille, Gilbert Webster, 3	River John.
Lawrence, Charles Strambeg, 2	Hantsport.
Lawrence, Mary Gladys, 1	Hantsport.
Layton, Francis Paul Hamilton, 1	Truro.
Layton, Robert Blackwood, B. A.	P. E. I.
Lindsay, Frances Joan, 4	Halifax.
Lindsay, Walker Stewart, 1	Halifax.
Locke, Enoch Charles, 4	Lockeport.
Logan, Frank Robert, 3	Masquodiboit Harbour.
Longhead, George William, 4	Beaver Brook.
MacAloney, Charles William, 1	Fairview.
McCain, George Leonard, 2	Sasser, N. B.
McCurdy, Rakoo Mabel, 4	Ondow.
MacDonald, Alexander Donald, 3	Pictou.
MacDonald, Campbell, 3	Cape Breton.
MacDonald, Eva Georgia	Port Hastings.
MacDonald, Mariel Winifred	Antigonish.
MacDonald, Frederick Augustus, 2	Halifax.
MacDonald, William, 4	Springville.
Macdonald, Zillah	Halifax.
MacDougall, Euphemia Mary, 4	Truro.
MacDougall, Ewen, 1	Bangor, P. E. I.
MacGillivray, Alexander Andrew, 2	Lunenburg.
MacGregor, Remie	LeHave.
McIntosh, Euphemia, 2	West Bay.
McIntosh, Robert John, 2	West Bay.
MacIntosh, Cyrus Ross, 2	Sunny Beach.
MacKay, Annie, B. A.	Pictou.
McKay, Daniel Alexander, 3	River John.
McKay, George Mstr Johnston, 3	Dartmouth.
McKeon, George Angus Ross, 3	West LeHave.
McKeon, Marion Stiles	Amherst.

McKenzie, Dan Hector	Sydney.
McKenzie, Mary Lizzie	Flat River, P. E. I.
MacKenzie, Thomas George, 3	River John.
McLean, Murdoch Campbell, 2	North Annapolis.
McLellan, John Archibald, 1	Richmond.
McLeod, Angus Alexander, 1	Bollock.
McLeod, Harry Barlow, 2	Springhill.
McLeod, John Albert	Orwell, P. E. I.
McLeod, William Arthur, 2	Lansdowne.
McMillan, Louise Victoria	New York.
McNiven, Catherine, 3	New Westminster, B. C.
McPherson, Malcolm James, J. A.	Uggs, P. E. I.
McPherson, William, 1	Springhill.
McQueen, Norman	Whitney Pier.
McRae, Colin	Belle Cote.
Malcolm, James, 4	St. John, N. B.
Manley, Clotilde Josephine, 2	Halifax.
Marshall, Guilford Romeo, 4	Halifax.
Martin, Daniel	Halifax.
Matheson, Charles Winfield, 4	Charlottetown, P. E. I.
Meek, John Geddie, 4	Truro.
Meilish, James Roland, 4	Halifax.
Miller, Dubessney Edmonstone, 2	New Glasgow.
Miller, Hugh, 3	Garden of Eden.
Morrisson, Edward Scarborough, 1	Milltown, N. B.
Munro, Ethel Margaret, 2	Pictou.
Murray, Ella Mabel, 2	Sussex, N. B.
Murray, Lulu Marion, 2	Masquodiboit.
Murray, Thomas Watson	Karlton.
Myers, Alexander J. W., B. A.	Lake Vend, P. E. I.
Nich, Charles Wiswell, 2	Halifax.
Nicholson, Daniel John, B. A.	Enfield.
Noble, Mary Eliza	Miramichi, N. B.
Pagzant, Arthur Silver, 2	Halifax.
Pennington, Amy Kingsland, 1	Halifax.
Peppard, Sarah Isabelle, 2	Halifax.
Perkins, Ella Dawson, 3	Charlottetown, P. E. I.
Power, William Kent, 4	Halifax.
Pool, Caroline McColl	Halifax.
Pool, George Carrolton, 3	Summersville, P. E. I.
Reynolds, Lida Maud	Halifax.
Robertson, Robert Burnside Hume, 1	Barrington.
Ross, Edwin Byron, 3	Peel, N. B.
Ross, Daniel Keith, 2	Lorne.
Ross, Lottie Louise, 2	Ross's Corner, P. E. I.
Ross, William McMillan, 2	Earlton.
Roy, Alexander Kerr, 4	Maitland.
Ruggles, Vernon Douglas, B. A.	Halifax.
Sanderson, Beatrice	Halifax.
Scrimgeour, James Angus, 3	Amherst.
Sedgewick, Garnett Gladwin, 4	Middle Masquodiboit.
Stinson, C. Mabel	Halifax.
Stirling, Frederick Douglas, 1	St. Stephen, N. B.
Stinson, Gladys Churchill	Halifax.
Smith, Alonso Alexander, 3	New Glasgow.
Smith, Daniel Murray, 4	Truro.
Smith, Frank Ewing, 2	Middle Masquodiboit.
Smith, Jacob Hart, 1	Port Head.
Smith, Olive Winifred, 2	Halifax.
Smith, William McIntosh, 1	Middle Masquodiboit.
Spencer, Minnie Grace, 3	Halifax.
Stairs, Gilbert Sutherland, 4	Halifax.

Stanford, Eleanor Alice, 2	Truro.
Stavert, Robert Hensley, R. A.	Wilmot Valley, P. E. I.
Stewart, John Murdoch, 1	Pictou.
Sutherland, Robert Hiram, 3	River John.
Swanson, Peter Innes, 1	Kentville.
Tait, William Dunlop, 2	Hopewell.
Thorne, Harvey, 2	Dartmouth.
Toombs, Herbert Wesley, 2	N. Rustico, P. E. I.
Townsend, Colin Geddes	Traveler's Rest, P. E. I.
Truman, John MacMillan, 3	St. John, N. B.
Turner, Christina Jane, 2	Truro.
Upham, Hugh McMillan, 4	Halifax.
Urquhart, Howard Donald, 3	St. Peter's.
Urquhart, James Rutherford, 1	Maitland.
Watson, Andrew Daniel, 2	Baddeck.
Webster, Winifred May, 4	Waterville.
Weeks, Edith	Halifax.
Weir, Andrew Stewart, 2	Thorburn.
Williams, Mildred Catherine, 2	Truro.
Wood, Jean Isabelle	Halifax.
Young, Alexander McGillivray, 4	Millville, Pictou Co.
Young, Luther Ligar, 4	Millville, Pictou Co.

FACULTY OF SCIENCE.

Amberson, Edwin Knowles, 4	Granville Ferry.
Bethune, Robert Anderson Jones	Baddeck.
Blois, Ernest Herbert, 1	Halifax.
Caldor, Frank Heber, 2	Halifax.
Davidson, Milton DeLaney, 2	Aylesford.
DeWolf, Lorin Arthur, R. Sc.	Cape Breton.
Elliott, Laurie Benjamin, 4	Dartmouth.
Ferguson, John Archibald, 4	Port Morien.
Fulton, Thomas Truman, R. A., 3	Basin River.
Glover, Frank Wesley	Ontario.
Gordon, George Bunley, 3	Halifax.
Halburton, Alfred Francis, 2	Halifax.
Hall, Ralph McMillan, 1	Shes Harbour.
Kelly, William Ligorio, 2	Halifax.
Laing, Allan Pollok, 2	Halifax.
Langs, Orlando Hayward	Truro.
Logan, John Herbert, 1	Halifax.
MacDonald, Ronald John	West Bay.
MacDonald, Donald, 3	Fourchu.
McLean, Stewart Clifford, 3	New Glasgow.
McLearn, Frank Harris, 1	Dartmouth.
MacLeod, Charles Gordon, 1	Thorburn.
MacLeod, Robert-Edly 2	St. Ann's.
Millard, James	Yarmouth.
Millard, James	Springhill.
Murray, James Bain, 1	Halifax.
Parker, George Henry, 2	Halifax.
Ross, William Horace, 4	River John.
Smith, Anteev DeWolfe, 1	Acadia Minor.
Stapleton, William Clarke, 2	Economy.
Urquhart, James, 2	Wegiv's River.
Webb, James Duggan, 1	Halifax.
Webb, Walter Geoffrey, 2	Halifax.
Wilson, Joseph Lewis	Bedfordwater.
Wood, Burton James, R. Sc.	Halifax.
Woodlsey, William Watherspoon	Halifax.

FACULTY OF LAW.

UNDERGRADUATES.

THIRD YEAR.

Livingstone, Charles Donald	Black Brook, C.B.
MacLeod, John Edward Ansd., R. A.	Dingwall, C. B.
Manning, Wiley McClintock, A. B.	St. John, N. B.
Murray, Adam Henry Stewart, M. A.	Sumner, N. B.
Pielan, Thomas More, M. A.	Little Bras d'Or.
Weldon, Joseph William, B. A.	Halifax.

SECOND YEAR.

Bell, Isaac Hartley	New Glasgow.
Cameron, John McKinlay	Pictou.
Carroll, William F., B. A.	Margaree Forks, C. B.
Chesse, George Owen, B. A.	Little Kimble, Backs.
Haviland, John Archibald	Truro (Eng.)
Hennison, Joseph Clarence, B. A.	Chatham, N. B.
MacKay, Ira, Ph. B.	Wolfeville.
Meargher, Thomas Joseph Neil	Millville, Pictou.
Miller, Lemuel James, B. A.	Halifax.
Mousser, Ralph Brecken, B. A.	Charlottetown, P. E. I.
Robertson, William McChyne	Avondale.
Roscoe, Harry W., B. A.	Marshfield, P. E. I.
Trides, Raleigh, B. A.	Kentville.
	Sackville, N. B.

FIRST YEAR.

Church, Eustace	Milltown, N. B.
Cree, Bertton Stone	Pettitodiac, N. B.
Dickey, Horace Arthur	Amherst.
Fulton, Allen, Jr., B. A.	Falough Village.
Gilpin, Thomas Bernard, B. A.	Digby.
MacKay, Robert-Edly	St. Mary's, Pictou.
Mitchell, George Alfred	River John.
Morrison, John William Goodin, B. A.	Sydney.
Shaw, Vernon Hastings	Beauley Point, P. E. I.

GENERAL STUDENTS.

Ackan, Joseph Leon	Trinidad, W. I.
Bown, Alexander Hair	Halifax.
Cameron, John James	Port Hawkesbury.
Corbett, William Melville	Rockburn, Q.
Eager, Martin Wingate	Dartmouth.
Fenerty, Lloyd Hamilton	Halifax.
Foster, William Gove	Dartmouth.
Harrington, Gordon Sydney	Halifax.
Kaufbach, Edgar	Halifax.
Locke, Enzo Charles	Lockeport.
Longhead, George William	Beaver Brook.
Macdonald, Alexander Elmore Murray	Truro.
MacDonald, Hector Young, B. A.	S. W. Margaree.
MacGillivray, Alexander Andrew	Lunenburg.
MacKenzie, Thomas George	River John.
Maclean, Donald	Falough, C. B.
McLennan, Donald	Margaree Harbour.

Moak, John Geddie	Truro.
Miller, Hugh	Eden Lake, Pictou.
Moulton, George Alfred	Burgell, Newfoundland.
Naughton, James	Amherst.
Redmond, James Arthur	Piquash.
Ross, Edwin Eyles	Peel, N. B.
Roy, Alexander Kerr	Maitland.
Smith, Daniel Murray	Truro.
Upham, Hugh McMillan	Halifax.
Weir, Andrew Stewart	Gealburn, Pictou.
Wood, John	Halifax.

FACULTY OF MEDICINE

UNDERGRADUATES.

FOURTH YEAR.

Aarssen, Minna May, M. A., (Dal.)	Halifax.
Brecht, Lester	Murray Harbor, P. E. I.
Coffin, Melville	Savage Harbor P. E. I.
Crawford, Daniel McNeill	Wood Islands, P. E. I.
Dickey, Edwin Egbert	Upper Canning, Kings.
Earle, Richard William Laurence	Hampton, N. B.
Ford, Theodore Rupert	Milton, Queens.
Fuller, Lewis Obad	Avonport, Kings.
Hawboldt, Harvey David	Marron's Cove, Chester.
Lawson, William Alfred	Wallace, Camb. (Lun.
Lesell, John Frederick	Halifax.
MacCraith, Kenneth Angus	St. Peter's, C. B.
Melver, John Angus	South Cove, Vict., C. B.
MacKenzie, Kenneth Alexander	Springhill, Camb.
MacLeod, Albert Churchill	Milton, Queens.
Murray, Daniel	Englishtown, C. B.
Norwood, Edmund Banbrick	Muslowville, Pictou.
Potter, Jacob Leslie	Robb's Cove, Halifax.
Rice, Grace Elizabeth Bernard, B. A., (Dal.)	Canning, Nags.
Whitman, George Watson	Weymouth, Digby.
Woodbury, Frank Valentine	Halifax.

THIRD YEAR.

Huckley, Clarence Edward Albert	Halifax.
Chapman, James Beairns	Alberton, P. E. I.
Emmingshats, Allen Rupert, B. A., (Dal.)	Dartmouth.
Forsythson, William Olaf, B. A., (Dal.)	Halifax.
Harby, George Albert	Alberton, P. E. I.
Jardine, Frederick W.	Freelown, P. E. I.
Johnson, Thomas Ross	Onslow Mountain, Col.
MacAulay, Maribeh Alexander	Glace Bay, C. B.
MacDonald, Thomas Henry	New Glasgow.
MacKenzie, Jennina	Flat River, P. E. I.
Messinger, Stella May	Waterside, Pictou.
Miller, Arthur Frederick	Toppsville, Annapolis.
Munro, Blanche Margaret	Charlottetown, P. E. I.
Bankin, John, B. A., (Dal.)	Antigonish, N. S.
Wallace, Peter James	Halifax.
.....	Chatham, N. B.

SECOND YEAR.

Blackadder, Edward, M. A., (Acad)	Wolfville.
Crilley, Arthur Tamashill	St. Stephen, N. B.
DeCoste, Stephen Herbert, B. A., (St. F. N.)	Harbour House, Antig.
Dickson, Robert Bankier	Antigonish.
Kinhead, Edmund Clarke	Kingston, Jamaica.
McDonald, Daniel Robert	Saltsprings, Pictou.
MacDonald, Nathaniel	Sydney Mines.
MacDonald, Thomas Gladstone	Theoabm, Pictou.
McIntosh, George Arthur	Argyle, Guysboro.
MacKay, Victor Neil	Earlton, Col.
MacKinnon, Mary	Waterside, Pictou.
Miller, Alexander W., B. A., (St. F. N.)	Margrave Forks, C. B.
Murray, James Alexander	West River, Pictou.
Murray, William Duff	Halifax.
O'Connell, John Ignatius, B. A., (St. F. N.)	Sydney
Pilot, Frederick William Harcourt	St. John's, Nfld.
Proudfoot, James Adam	Saltsprings, Pictou.
Weeks, Edith	Bay Bulls, Nfld.

FIRST YEAR.

Amberman, Edwin Knowles	Granville Ferry, Annap.
Baldwin, Francis Edmund, B. A. (8th Anns)	Arichat, C. B.
Coffin, Wesley Herbert	Bristol, P. E. I.
Devine, Matthew Edward	Arcaida, Yarmouth.
Dunovan, Oscar Glenzie	Truro, Colechester.
Dunn, George Alexander	Lynn's Brook, Pictou.
Farbes, Arthur Edward Grant	Little Harbor, Pictou.
Goodwin, James Clifford	Weymouth Bridge, Digby.
Greene, William Ira	Clifton, P. E. I.
Hardy, Albanus Nelson	Allenside, Shelburne.
Heminger, Annie	Noel, Bants.
Killam, Harold Edwin	Woodville, Kings.
Lynn, James Chalmers	Waterville, Kings.
MacDonald, Alexander Vincent	Salmon River, C. B.
MacLean, Donald John	Sydney, C. B.
McRae, Duncan Horlick	S. S. Beaulacrie, C. B.
McLennan, Anson Raymond, B. A. (8th Anns)	Cocherie, Digby.
Mellish, James Roland	Halifax, N. S.
Robbins, Evelyn Edwin	Halifax, N. S.
Ross, Walter Donald	Kirosa, P. E. I.
Smith, Cecil Vernon	Greenspond, Nfld.
Upphath, Howard Donald	St. Peter's, C. B.
Walsh, Cornelius Edward	Jordan Falls, Shelburne.
Young, Alexander MacGillivray	Millsville, Pictou.

APPENDIX.

FACULTIES OF ARTS AND SCIENCE.

JUNIOR AND SENIOR MATRICULATION

EXAMINATION PAPERS, 1902-1903.

(Junior Matriculation Examination.)

LATIN.

HOWARD MERRAY, B. A. Examiner.

CAESAR: GALLIC WAR, BOOK I. VERGIL: AENEID, BOOK II.

TIME: THREE HOURS.

1. Translate:

(a) Postero die castra ex eo loco movent. Idem facit Caesar equitatusque omnino ad remouens quattuor milibus, quos ex omni provincia et Aeduis atque eorum sociis coactum habebat, praesertim, qui videant, quas in partes hostes iter faciant. Qui cupidius nouissimum agmen inuocati alio loco cum equitata Helvetiorum proelium consistunt: et pauci de nostris cadunt.

(b) Ariovistus ad postulata Caesaris: postea respondit, de suis vicinibus nulla praedidisset; Transisse Rhenum sese non sua sponte, sed rogatum et arcessitum a Gallis; non sine magna spe magnisque praemiis domum profecturusque reliquisse; sedes habere in Gallia ab ipsis concessas, obides ipsorum volentibus datos; stipendium capere iure belli, quod victores victis imponere consuevit.

2. In the above extracts account for the mood of praesertim, civeant, faciant, capere, imponere, consuevit.

3. (1) a. d. F. Kal. Apr. Write out this expression in full, and give our corresponding date.

(2) Give the Latin for: at daybreak, late in the day, three o'clock in the morning, three o'clock in the afternoon.

4. "Gallia est omnis diuisa in partes tres."
Draw an outline map of Gaul, showing these three general divisions with the boundaries dividing them from one another, and give ancient and modern names of these boundaries.

II.

1. Translate :

- (a) Quos ubi confectos auctore in proelia vidi,
 Incipio super his ; Itevenis, fortissimos frustra
 Pectora, si vobis ausulemum extrema cupido
 Certa seque, quas sic relax fertura videtis :
 Excussos omnes, alytis arisque relictis ;
 Tu, quibus imperium hoc steterat ; succurritis urbi
 Inermes ; moriamur, et in media arva ruemus.
 Una salus victis, nullam sperare salutem.
- (b) Mene effere yedem, gnator, te posse relicto
 Sperasti, tantumque nefas patrio exidit ore ?
 Si nihil est tanta Nuperi placet se be reliquis,
 Es sedet hoc animo, periturusque adire Troas
 Teque tuoque invat, patet isti iam a leto,
 Namque aderit multo Priami de sanguine Pyrrhus,
 Natum ante ora patri, patrem qui obrucant ad aras

2 Parse in extract (a) : *confectos, ausulemum, alytis* ; in (b) : *arax, nihil, ite*.

- 3 Scan, marking quantities, the last five lines of extract (a).
 4 Brief notes on : *Arxos, Makhos, Pallastios, Tyndaridos*.

III.

1. Give rules for determining where the accent falls in Latin words. Divide into syllables each of the following words and mark its accent : *ambulator, ausonius, cassandrea, corporis, existimaverat, obdormierat, proceverat, quareverat*.

2. Give the genitive singular, gender and meaning of : *acies, paries, pes, amicus, fides, manus, scinus, tatus, vulgus* ; the vocative singular of : *dominus, filius, fœlicia, mens*.

3. Give the superlative of : *acer, auctor, dignus, dis, datus, græcicus, male, miserofus, sequens, stultus*.

4. 1st sing. fut. ind. of : *audio, nescio, eo, scio, possum, prosum* ; 1st sing. perf. ind. of : *cupio, ego, paro, pario, adeo* ; 2nd sing. pres. imper. of : *capio, dico, mover, morior, volo, vo*.

5. Give, with examples, four rules of concord or agreement ; and four for the use of the ablative case.

6. Latin for : (a) so good a man as this, (b) you will be spared, (c) two feet taller than his brother, (d) may you be fortunate, (e) they promised to give it, (f) do not envy the wicked, (g) we have been suffering thus for many days.

7. Translate into Latin :

- (a) You were the first to warn me not to treat that man or his brother.
 (b) I was afraid that the boy was not using carefully the book I had given him.
 (c) For this reason they fled from their own state to the senate at Rome to ask for aid.
 (d) Those who had been sent to do this were seen by our men and many of them were killed.

- (e) The leader of the enemy said that he had been unwilling to leave his home without the hope of great rewards.

IV.

Passage for translation from a book not prescribed.

Hic quoscunque in portam impetum fecerant, hostes loco cedere cogebant, sed neque longos fugatus prosequi neque vehementius equos incitare poterant, ad equitatus hostium ab utroque cornu circumire aciem nostram et avareos protegere incipit. cum cohortes ex acie procurerent, Numidae integri coloritate impetum nostrorum effugiebant, rursusque ad ordinemque se recipientes circumstant et ab acie excludebant. sic neque in loco manere ordinemque aciem neque procurare et casum subire tutum videbatur. hostium equos submissis ab eorum auxiliis orbem agebantur, nostris vires lassitudine deflebant, sicuti et qui volentis acciperent neque acie excedere neque in locum tutum referri poterant, quod tota acies equitate hostium circumstanta tenebatur.

GREEK.

HOWARD MURRAY, B. A. Examiner.

XENOPHON: ANABASIS, BOOK IV.

TIME: THREE HOURS.

I.

1. Translate :

(a.) Παρασώμενοι δ' ἐντυγχάνουσι λόφῳ ὑπὲρ τῆς οὐδοῦ, καταλημμένῳ ὑπὸ τῶν πολεμίων, οὗς ἡ ἀποσάφει ἦν ἀνάγκη, ἢ ἀνευχθῆαι ἀπὸ τῶν ἄλλων Ἑλλήνων. Καὶ αὐτοὶ μὲν ἂν ἐπαροῦσθαι, ἤπειρ οἱ ἄλλοι τὰ δ' ὑποβύτια οἴκῃ ἦν ἄλλη ἢ ταύτῃ ἐκβῆραι. Ἐγθα δὲ παρακελευσάμενοι ἀλλήλους προσβάλλουσι πρὸς τὸν λόφον ἰσθίους τοῖς λήχοις, οὐ κίελεν, ἀλλὰ καταλιπόντες ἀφῆδον τοῖς πολεμίοις, εἰ βούλοιντο φεύγειν.

(b.) Οὗτος ἐρίζωνται αἰρούσι τὸ χερσίον. Ὡς γὰρ ἄταξ εἰσῆραμον, οὐδὲς ἐτι πέτρος ἀνιθεῖν ἠνέχθη. Ἐνταῦθα δὲ θεόν ἦν θέαμα· αἱ γὰρ γυναῖκες, μίπτουσαι τὰ παῖδιά, εἶτα καὶ ἑαυτὰς ἐπικατερίπτουσαι καὶ οἱ ἄνδρες ἀσάουσαι. Ἐγθα δὲ καὶ Αἰδέας ὁ Στυμφάλιος, λοχαγὸς, ἰδὼν τινα θύοντα ὡς μύθοντα ἑαυτὸν, στολήν ἔχοντα καλήν, ἐπιλαμβάνεται ὡς αὐτὸν κολύσσων. Ὁ δ' αὐτὸν ἐπισπῆται, καὶ ἀμφότεροι ἄχοντο κατὰ τῶν πετρῶν φερόμενοι, καὶ ἀπέθανον.

2. Parse in (a) ἀδοῖ, καταλημμένῳ, οὐς.
(b) ἠμυίασε. ἰαντός, ἰδών.
3. Brief notes on Θήρες, Κεντρίτην, Τραπεζοῦντα, Χαλόβον.
4. The time and place of Xenophon's birth and death. When and how did he become acquainted with Cyrus?

II.

1. Arrange the *mutes* according to *orders* and *classes*. What changes take place in the mutes before μ and before τ ?
2. Give the genitive and vocative singular, and the dative and accusative plural of ἡγεμῶν, ναῖς, νεῶν, νεῦξ, πολυαστής, πολίς, βήτωρ, τρεῖς.
3. Compare αἰσχρός, ἀληθής, εὐφρων, κακός, κερός, μάλα, μέσος.
4. Give the principal parts of γράφω, δίδωμι, εἰπάω, καλῶ, λαίω, τάττω.
5. Write down the 3rd plural of the imperfect, aorist, and perfect indicative, active and passive, of ἄγω, αἰδέομαι, βάλλω, παῖνω, τίθημι, φέρομαι.
6. The meaning of :—(a) αἱ ἐπὶ τῶν πραγμάτων, (b) ἡ τοῦ Φιλίππου, (c) ἐν τοῖς πρώτοις, (d) ἐν τῇ αὐτῇ πόλει, (e) ἐν αὐτῇ τῇ πόλει, (f) αὐτοῖ ἴσμεν, (g) ἡμέρα ἐγένετο ἡ νύξ.
7. Translate into Greek :
(a) Rising at the word of command they marched on, and at daybreak they reached the mountain.
(b) Xenophon wished to seize some of the men alive, that he might make use of them as guides.
(c) We thought that we would see the king in the streets of the great city.

(d) A message was sent to the city to announce that the ship had been captured by the Greeks.

(e) The general was delighted with the soldiers, because they had fought bravely and had overcome the enemy.

III.

Translate this passage from a book not prescribed:

Νῦν δὲ οὕτως ἔχει ἀμαχὰ μὲν ἐπιβόη οὐκ ἔστι ἀπελθεῖν· ἦν γὰρ μὴ ἡμεῖς ἴσμεν ἐπὶ τοῖς πολεμίοις, οὕτω ἡμῖν, ὅταν ἀπίσμεν, ἐφρονται καὶ ἐπιπροσέονται. Ὅρατε δὲ, πότερον κρείττον ἴσμεν ἐπὶ τοῖς ἀνδράσι, προβαλλομένοις τὰ ὄπλα, ἢ μεταβαλλομένοις, ὅπισθεν ἡμῶν ἐπιώστας τοῖς πολεμίοις θεάσασθαι. Ἴστε γε μέγιστος, ὅτι τὸ μὲν ἀπίσμεν ἀπὸ πολεμίων οὐδεὶς καλῶ ἔσκε· τὸ δὲ ἐφέπασθαι καὶ τοῖς κακίστοις θάρροι ἐμποῖ. Ἐγὼ γ' οὖν ἦδον ἂν σὺν ἡμίσειν ἰκούμεν, ἢ σὺν δεκασίοις ἀποχωροῖν. Καὶ τούτους οἶδ' ὅτι, ἐπιώστων μὲν ἡμῶν, οὐδ' ὑμεῖς ἐπιέξετε δεξασθαι ἡμῶν· ἀπίώτων δὲ, πάντες ἐπιστάμεθα, ὅτι πολήμοισιν ἐφέπασθαι.

FRENCH.

PROFESSOR LEBERTI Examiner.

TIME: THREE HOURS.

A. Translate: *Châtes XII.*

Enfin, après deux ans de voyages et de travaux auxquels nul autre homme que lui n'eût voulu se soumettre, Pierre reparut en Russie, amenant avec lui les arts de l'Europe. Des artisans de toute espèce s'y réunirent en foule. On vit pour la première fois de grands vaisseaux russes sur la mer Noire, dans la Baltique, et dans l'Océan; des bâtiments d'une architecture régulière et noble furent élevés au milieu des huttes moscovites. Il établit des collèges, des académies, des imprimeries, des bibliothèques: les villes furent polonoises, les habitations, les coutumes changèrent peu à peu, quoique avec difficulté: Les Moscovites commencent par degrés ce que c'est que la société. Les superstitions même furent abolies; la dignité de patriarche fut ôtée: le czar se déclara le chef de la religion.

B. Il régnait depuis longtemps dans les troupes suédoises une discipline qui s'avait pas peu contribué à leur victoire : le jeune roi en augmenta encore la sévérité. Un soldat n'eût pas osé refuser le paiement de ce qu'il achetait, encore moins aller en marande, pas même sortir du camp. Il voulait qu'après en avoir eu la permission ; et il parvint aisément à faire observer cette loi. Son camp, mieux police que Copenhague, est tout en abondance ; les paysans aimaient mieux vendre leurs denrées aux Suédois, leurs ennemis, qu'aux Danois qui ne les payaient pas si bien ; les bourgeois de la ville faisaient même obligation de venir plus d'une fois chercher au camp du roi de Suède des provisions qui manquaient dans leurs marchés.

1. Parse and give prime parts of—*est, habet, fuerit* (A); *est, vult, dépoùillement* (B).

2. *Le czar se declara le chef de la religion* (A). Write this sentence : 1) in the plural ; 2) in the interrog. form ; explain difference in construction in the latter form. Give the disjunct. form of *se*, and transl. : One must not speak of oneself.

3. Illustrate some of the leading points of difference between French and English.

4. *Le sucre est en poudre* (A). Account for the words *est* and *en* in this sentence. Show, giving *est*, the difference between the preposits, *en* and *dans*. Transl. :—He was speaking of it.

5. How do you express *some* and *any* in the following *est* ? transl. : Have you any friends? Yes, I have some. The merchant sells (some) sugar, flour and oil. *De* alone is used in two cases to denote *some* and *any* ; write *en* in illustration.

6. *Leur victoire* (B). Give the sing. and plur. of *leur*, and explain the agreement of the possess. obj. ; transl. for *ex*. : Her Majesty the Queen and His Majesty the King. In what other capacity may *leur* be used ? give *ex* *ex*.

7. *Encore moins after* (B). Parse *moins* ; write down the positive and superlat. of it, and the same forms of the obj. corresponding. Compare : *less, less, lesscomp.* Transl. : Most people know how to read.

8. *Il consista de plus* (B). When is *plus* followed by *que*, when by *de*. Explain, and transl. : London has more than four million inhabitants ; it is larger than Paris.

9. Translate into French : Peter the Great left Prussia in 1698. He spent two years in Holland and in England, where he learned the art of building ships. Can you speak French? No, I only speak English. How old are you? I am twenty-one. What day of the month is this? It is the 15th of Sept., 1862 (letters)—When did you return? A fortnight ago.

GERMAN.

PROFESSOR LICHTH. *Examier.*

TIME: THREE HOURS.

(Translate : Group A. and B., or group C. and D).

A. Translate: Johann Sebastian Bach befahl sein fröhlicher Kindheit an eine unbewingliche Leidenschaft für Musik. Sein älterer Bruder wünschte indessen, daß er einen andern Beruf wählen sollte, und erlaubte ihm aberds kein Vids, um musikalische Studien zu machen. Sebastian ließ sich dadurch nicht abbrechen, sondern kopierte mehrere musikalische Hefte beim Nachbarn. Sein Bruder verdammt dießelben, aber Sebastian ließ sich trotzdem nicht von der Kunst abwenden, in welcher er sich nachher so sehr auszeichnete.

B. Der Winter in Rom.

Man werft den Winter nicht ; die Gärten sind mit immergrünen Bäumen bepflanzt ; die Sonne scheint hell und warm ; Schnee sieht man nur auf den easternten Bergen gegen Norden. Die Citronenblume, die in den Gärten an den Wänden gepflanzt sind, werden nun nach und nach mit Deden von Aste überdeckt, die Feuertrennenbäume aber bleiben frei stehen. Es hängen viele Anhente der schönsten Früchte an so einem Baum, der nicht wie bei uns bechnitten und in einem Kübel gepflanzt ist, sondern in der Erde frei und froh, in einer Reihe mit seinen Brüdern steht. Man kann sich nichts Lustigeres denken als einen solchen Markt. Für ein geringes Trinkgeld ist man bereit so viel man will. Sie sind schon jetzt recht gut, im März werden sie noch besser sein.

C. Translate: Das Wirtshaus im Speffart.

Hat sie nicht die Lehre für mich bezahlt und Kleider und alles ? entgegenere Felt. Hat sie nicht Mutterstelle an mir vertreten und mich aufziehen lassen ? Und jetzt, da ich sie besuchen darf und etwas anbringe von meiner eignen Arbeit, das sie beim Weiber bestellt hat, jetzt, da ich ihr an dem schönen Geschmeide zeigen könnte, was ich gelernt habe, jetzt soll ich das alles hergeben und die gelbe Wette dazu, die ich auch von ihr habe ? Nein, lieber Herbe, als daß ich den schlechten Menschen meiner Frau Fete Geschmeide gebe !

C. Man hörte einen Wagen ansahren, mehrere Stimmen riefen nach Licht, es wurde bellig an des Hofstod gepocht, und dazwischen besten mehrere Hunde. Die Kammer, die man dem Fuhrmann und den Handwerksburschen angewiesen hatte, ging nach der Straße hinaus ; die vier Wäde sprangen auf und liefen dorthin, um zu sehen, was vorgefallen sei. Soviel sie beim

Zeigen einer Patente sein konnten, stand ein großer Reisewagen vor der Ehente; jedoch war ein großer Mann beschäftigt, zwei verführerte Frauen aus dem Wagen zu heben, und einen Kutscher in Eile sah man die Pferde abspannen, ein Bedienter aber schnell den Koffer los.

1. Ein älterer Bruder (A); Ein großer Mann (D). Account for the inflection *er* in *älterer* or in *großer*, and mention its positive and superlative degrees. Compare: gut, viel, hoch, and decline in the 4 cases sing. and plur.: Mein guter Bruder.

2. Kein Buch. Parse *kein*, and illustr. with *exs.* the use of its analogous term *nicht*. Transl.: Do you speak German? No, I do not speak German. Give the Genitive singular, and the Nominat. plur. of: Vater, Mutter, Sohn, Kind, Hund; also the mascul. of: Weib, Base, Tante, Mädchen, Dame; give the English of these nouns.

3. Parse and give princip. parts of: *solle*, *verbrannte* (A); *habe*, *werden*, *sann* (B); or: *hat*, *frönte* (C); *hörte*, *war*, *sah* (D). Write down the present tense of the Indicat. of *haben*, and explain, giving *exs.* how the *future* and *conditional* of verbs are formed.

4. Write down all the preposits. in extract A. or C., and mention the case or cases they may govern. Account for *beim* in *beim Ronbildt* (A) or: *beim Reiter* (C), and mention other similar forms.

5. Point out a sente. in A or in D. in the *normal* order of construction and comment on the order of its words. Find two or three sents. in B. or in C. deviating from this order at d. give reasons for such deviations.

6. Was merkt den Winter nicht (B) or: Was hörte einen Wagen anfahren (D). What effect has the doubling of the letter *n* in *was* on the word, and on the meaning of the clause? What change of construction takes place in the sents. above, if you put the object in each at the head of the sente.?

7. Illustrate the difference between *das* and *das*. *Das* may be used as a *relat. pron.*, and as a *demonstr. pron.*; write an *ex.* in illustr. of each case.

8. Transl. into German: This gentleman is an Englishman. London is the largest city in the world. He is writing German letters. It is half past three o'clock. I have seen your friend three days ago. To-day is the 14th of Sept., 1902 (letters).

ENGLISH.

A. MACMEHAN, PR. D. Examiner.

TIME: THREE HOURS.

1. Write a composition of at least three paragraphs on *one only* of the following themes, paying attention to handwriting, spelling and punctuation, as well as to choice of words, sentence structure and disposition of paragraphs:

- (a) Hastings On Trial.
- (b) Bassanio As A Fortune Hunter.
- (c) The Quest of Evangeline.
- (d) The Death of Roderick Dhu.
- (e) Peace in South Africa.
- (f) Canada's Aid to the Empire.

2. Reproduce carefully, in clear and simple prose the substance of the following lines:

He spoke of Burns: men rude and rough
Pressed round to hear the praise of *one*
Whose heart was made of manly, simple stuff,
As homespun as their own.

And, when he read, they forward leaped,
Drinking with thirsty hearts and ears,
His brook-like songs whose glory never waned
From humble smiles and tears.

Shrewly there grew a tender ear
New life, *one* face brown and hard,
As if in him who read they felt and saw
Some presence of the bard.

It was a sight for sin and wrong
And slavish tyranny to see,
A sight to make our faith more pure and strong
In high humanity.

LOWELL: An Incident in Railroad Car.

3. Analyze fully the poem in (2); and parse the italicized words.
4. "Burns." Tell what you know of him?
5. "rude." Does "rude" here mean "impolite"? If not, what does it mean?
6. "homespun." Give literal meaning, and meaning in this passage.
7. "they forward leaped." What does this attitude imply?
8. "thirsty hearts and ears." How could they "drink" with their "ears"?
9. "brook-like." How can Burns's songs be compared to a brook?
10. "glory," meaning here? "waned," literal meaning and meaning here?
11. "humble smiles and tears." Paraphrase.

12. "sun-like" Did the "awe" resemble the sun or the sunlight?
13. "presence of the hard." Who were the "hards"? How does the word apply here? What does "presence" imply?
14. "It was a sight . . . to see." Why?
15. How can "tyranny" be "slavish"?
16. Why is "humanity" called "high"?

MATHEMATICS.

PROF. D. A. MURRAY, PH. D. *Examiner.*

ARITHMETIC AND ALGEBRA.

TIME: THREE HOURS.

N. B.—Either write on questions 1-8, or on questions 1-5 and 9-11.

- Factor the following: $x^3 - 11x + 24$; $x^2 - 256$; $x^3 - 3x^2y - 24xy^2$.
- Without finding the quotients calculate the remainders when $x^4 - 2x^3 - 11x^2 + 6x - 15$ is divided by $x + 3$ and by $x - 2$. (The method of calculation must be shown clearly.)
- A and B run a mile. At the first heat A gives B a start of 20 yards and beats him by 30 seconds. At the second heat A gives B a start of 32 seconds and beats him by $9\frac{1}{4}$ yards. Find the rate per hour at which A runs.
- Show that one root of the equation $x^2 + x + 1 = 0$ is the square of the other. Find the square root of $80 - 24\sqrt{3}$.
- Determine the value of a for which the two roots of $2ax^2 + x^2 - 6ax - 6x - 6a + 1 = 0$ are equal.
- Find the value of $\sqrt{252} - \sqrt{294} - 48\sqrt{3}$.
- Simplify $\frac{1 + \frac{1}{m}}{\frac{1}{m}} \times \frac{\frac{1}{m}}{m^2 + \frac{1}{m}} \div \frac{\frac{1}{m}}{m - 1 + \frac{1}{m}}$.
- Simplify and express with positive indices: $\left(\frac{x}{x^3} \cdot \frac{y^{-1}}{y}\right)^6 \div \left(\frac{x^{2a} - 12}{y^{2b} + 12}\right)^4 + 5^2$.
- The geometric mean of two numbers is 48 and the harmonic mean is $48\frac{1}{2}$; find the numbers.
- The square of the time of a planet's revolution about the sun varies as the cube of its distance from the sun. The distances of the Earth and Mercury from the sun are as 91 to 35; how many days are there in Mercury's year?
- Find the 12th term of $\left(\frac{1}{x} - \sqrt{x} - \frac{1}{4}\right)^{14}$.

GEOMETRY.

TIME: THREE HOURS.

N. B.—Either write on questions 1-8, or on questions 1-4 and 9-12.

- Construct a parallelogram equal to a given rectilineal figure, having a side equal to a given straight line, and having an angle equal to a given angle.
- If two triangles have two angles of the one equal to two angles of the other, and the sides opposite to a pair of equal angles equal, the triangles are equal in all respects.
- Describe a circle to touch a given circle and a given straight line. How many solutions are there?
- Determine the locus of a point from which tangents drawn to two given circles are equal.
- If a straight line be divided into any two parts, the sum of the squares on the whole line and on one of the parts is equal to the sum of twice the rectangle contained by the whole line and that part, and the square on the other part.
- Prove that every straight line which bisects the area of a parallelogram must pass through the intersection of its diagonals.
- The angle which an arc of a circle subtends at the centre is double of the angle which the arc subtends at the circumference.
- If the squares on the sides of a quadrilateral be equal to the squares on the diagonals, it must be a parallelogram.
- Inscribe a regular pentagon in a given circle.
- If the ratio of two sides of one triangle to two sides of another triangle be equal, and also the angles opposite to one pair of these sides be equal, the angles opposite to the other pair of sides are equal or supplementary.
- If two triangles which have a pair of equal angles, have their sides about the equal angles reciprocally proportional, the triangles are equal in area.
- Divide a given triangle into two parts having the ratio 3 : 5 to one another, by a straight line parallel to one of its sides.

HISTORY AND GEOGRAPHY.

THE REV. PRESIDENT FORREST *Examiner.*

TIME: THREE HOURS.

- Briefly describe the different courts of the Anglo-Saxons and show how the leading principles of the British Constitution were embodied in them.
- When was feudalism introduced into England? Wherein did it differ from the feudalism of France?
- Give an account of the Mad Parliament.

4. Social condition of England in reign of Elizabeth.
5. Brief account of reign of William III.
6. When and how did Hanover become separated from England?

1. Give brief account of the rule of "The One Hundred Associates."

2. Brief outline of constitutional history of Quebec.
3. Rebellion of 1837.
4. The Miramichi fire.
5. Joseph Howe.
6. Boundary disputes in British Columbia.

1. In what direction is Vancouver from Victoria? Ottawa from Montreal? St. John from Yarmouth, N. S.? London from Paris? Rome from Constantinople?

2. In what zones do the following countries lie: Philippine Islands, Formosa, New Zealand, Egypt, Greece, Florida, California?

3. Bound Manitoba, New Brunswick, Maine, Mexico, Brazil, Spain.

4. Give population, climate and products of Norway, Denmark, Portugal, Cuba, Arabia, Persia.

5. Locate Hamilton (Ont.), Pieton, Lunenburg, N. S., Brisbane, Durmedin, Seoul, Port of Spain, Cleveland.

6. Describe the Baltic Sea, its principal bays, gulfs and ports.

(Senior Matriculation Examination.)

LATIN.

HOWARD MURRAY, B. A. Examiner.

CICERO: IN CATHENAM, DE SENECTUTE, DE AMICITIA. VERGIL:
ÆNEID, BOOK VI.

TIME: THREE HOURS.

I.

1. Translate:

(a) *Est scriptura ipsius manu Allobrogum senatus et populo, esse que coram legatis confirmasset facturam esse; orare ut istam illi facerent quae sibi legati coram recepissent. Tunc Cethegus, qui paulo ante aliquid tamen de gladiis ac sicis, quae apud ipsam esset deprehensa, respondisset dixisset se semper bonorum ferocissimum studiosum fuisse, recitata litteris debilitatus atque abjectus conscientia repente contulit.*

(b) *Equidem offeror studio patres vestros, quos ceteri et dilexi, videndi; neque vero eos solum contemere avaro, quos ipse cognovi, sed illos etiam, de quibus animi ei legi et ipse conscripsi. Quo quidem me profectissime haud sane quis facile retraxerit, neque tanquam Pellam recuset. Quod si quis deus sibi largiatur, ut ex hac aetate reperturam et in omni vagam, velle recessum. Nec vero velis, quasi decurso spatio, ad ceteros a calce recessis.*

(c) *Rarus genus; et quidem omnia praecara rara, nec quidquam difficilem, quam reperire, quod sit omni ex parte in suo genere perfectum. Sed plerique neque in rebus humanis quidquam bonum norant, nisi quod fructuosum sit, et amicos, tanquam pecudes, eos potissimum diligunt, ex quibus sperant se maximum fructum esse capturos. Ita pulcherrima illa et maxime naturalis essent amicitia, per se et propter se expectanda, nec ipsi sibi extorquenda, hanc vis amicitiae qualis et quanta sit.*

2. Give a general analysis of the second sentence in extract (a).
(*Tam Cethegus . . . contulit.*)

3. Brief notes on: *Proximum, Saturnalibus; sacris Idibus Magnae Matris, nec tanquam Pellam recuset; senstem Africanis, pugni Miverni.*

4. A brief sketch of the life of Cicero up to the time of Cataline's conspiracy.

II.

1. Translate:

Hæc omnis turba ad ripas effusa roabat,
Matres atque viri, defunctoque corporea vita
Magnanimam levibus, pueri insuapiente puellæ,
Impositaque regia iuvenis ante ora parentis:
Quam multa in silvis autumnum frigore primo
Læta cadunt folia, nec ad terram gurgite ab alto
Quam multæ glomerantur aves, ubi frigidus æstus
Tras postum legat et terris immittit apricis,
Stabant orantes primi transmittere cursum,
Tremebantque matris ripæ ulteriori amore,
Navita sed Iriete raris bus ante accipit illos,
Aut alios longe subnotos arect hærens.

2. Pass fully in the above extract: *effusa, raris, regi, frigore, laetitia*.

3. Scan, marking quantities, the first six lines of the above extract.

4. Brief notes on: *αἴας Achilles, Gaius Iulius, tricarparis aculeus, circi i quereis*.

III.

1. Give the superlative of: *acer, audacter, dignus, diis, debilis, parvulus, male, miserabilis, nequam, vitiosus*; and the vocative singular of: *deusculus, filius, facinus, mens*.

2. 1st sing. fut. ind. of: *arctos, audis, es, mulo, possidet, prosum*.
1st sing. part. ind. of: *arctos, capis, geris, pavo, pario, solo*.
2nd sing. pres. imper. of: *capis, dico, moror, morior, solo, sto*.

3. Mention five uses of the genitive and five of the ablative, and give an example of each use.

4. What different kinds of clauses may be introduced by the conjunctions *cum* and *ut*? What mood follows in each case?

5. Ways of expressing in Latin: (a) a wish; (b) a prohibition. Give examples.

6. Latin for: (a) all of you were present, (b) you are hated by them, (c) possibly you are mistaken, (d) I am sure to write me, (e) he said he would never do this, (f) he shall go, whether he likes it or not.

7. Translate into Latin:

(a) On their return, the envoys were asked what reply the citizens had given.

(b) For a long time the consul has been trying to persuade this man to take his departure from the city.

(c) Can you tell me whether he intends to stay longer at London (Londinium), or to start at once for Rome?

(d) I shall come to help you if I can; I would have come before this if I had not been prevented.

(e) He said he would not have threatened to injure you, if you had promised to do what he wanted.

IV.

Passage for translation from a book not prescribed.

Themistocles post victoriam eius belli, quod cum Persis fuit, dixit in contione se habere consilium rei publicae salutare, sed id sciri non oportere; postulavit ut adirent populus daret, quicum communicaret; datus est Aristides. Haec ille, classes Laedaeoniarum, quae subductae essent ad Gytheum, clam incendi posse, quo facto frangi Laedaeoniarum opes necesse esset. Quod Aristides cum audisset, in contionem magnas expectationes venit dixitque periculis esse consilium, quod Themistocles adferret, sed minime honestum. Haec Athenienses, quod honestum non esset, id re vitio quidem putaverant totamque eam rem, quam se audierant quidem, excoere Aristide repudiaverunt. Melius hi quam nos, qui peritas immunes, socios vocatiles habemus.

GREEK.

HOWARD MURRAY, B. A. *Examiner.*

TIME: THREE HOURS.

XENOPHON: HELLENICA, Books I and II.

EURIPIDES: MEDEA.

I.

1. Translate:

Κῆρος δὲ Φαρναβάζῳ εἶπεν ἢ παραδοῦναι τοὺς πρέσβεις ἑαυτῷ ἢ μὴ οἰκαδὲ ποιῆσαι ἀποπέμψαι, βουλομένου τοῖς Ἀθηναίοις μὴ εἰδέναι τὰ πραττόμενα. Φαρνάβαζος δὲ τῶν μὲν κατεῖχε τοὺς πρέσβεις, φάσκων τότε μὲν ἀνάγκη αὐτοὺς παρα βασιλείᾳ, τότε δὲ οἰκαδὲ ἀποπέμψαι, ὅτι μὴδὲν μέρψηται ἐπειδὴ δὲ ἕναυτοὶ τρεῖς ἦσαν, ἐβέβη τοῦ Κῆρου ἀφίναί αὐτοῖς, φάσκων ὁμομοκέται ἀπάξεν ἐπὶ θάλατταν, ἐπειδὴ οὐ παρά βασιλείᾳ. πέμψαντες δὲ Ἀρισβαρζάνει παρακομίσει αὐτοὺς ἐκέλευον.

2. Parse *ἑαυτῷ, μέρψηται, ὁμομοκέται*.

3. Translate and write brief explanatory notes on:—

(a) *πανῶσι τούτους*.

(b) *ἐκ τούτων Ἐρμοκράτης τὰ πολλὰ ἐν τῷ συνεδρίῳ εὐλόγει*.

(c) *ἡμέρῃ ἢ Πλωτήρεια ἦγεν ἡ πόλις*.

II.

1. Translate:

οἱ δὲ πρέσβεις ἐπὶ ἦσαν οἰκαδὲ καὶ ἀπήγγειλαν ταῦτα εἰς τὴν πόλιν, ἀθυμία ἐπέτειε πᾶσιν· φωντο γὰρ ἀνδραποδοθήσεσθαι, καὶ ἕως ἂν πέμπωσιν ἑτέροις πρέσβεις, πολλοὺς τῷ λιμῷ ἀπολείσθαι. περὶ δὲ τῶν ταχῶν τῆς καθαίρεσος οὐδὲν ἐβούλετο συμβουλευεῖν Ἀρχέστρατος γὰρ εἶπεν ἐν τῇ βουλῇ Λακεδαιμονίους κρείσσιον εἶναι ἢ φ' οἱς προικαλοῦντο εἰρήνην ποιεῖσθαι, ἐβέβη προικαλοῦντο δὲ τῶν μακρῶν ταχῶν ἐπὶ δέκα σταθίους καθελῖν ἐκατέρωθεν ἐγένετο δὲ ψήφισμα μὴ ἐξίναί τι περὶ τούτων συμβουλευεῖν.

2. Parse ἐπέσειε, ἀπολείσθαι, κράτιστος.
3. Translate and write brief explanatory notes

ON:—

- (a.) τῆς Παράλου ἀφικομένης ναυτὸς ἐλέγγοτο ἢ συμφορᾷ.
(b.) ὅθεν ἐήπτο καὶ κέρδιος ἐπικαλεῖται.
(c.) τοῖς δυστυχεύουσιν ἐν τῇ περὶ Διόσκου ναυμαχίᾳ.

III.

1. Translate:—

- (a.) οὐκ εἶν κατῆδος πρότον, ἀλλὰ πολλὰ καὶ τραχεῖα ὄρη ἅς ἀμύχανον κακόν. σοὶ γὰρ παρὼν γῆν τήδε καὶ δόμον ἔχει, κοῖφαι φερούση κρείσσον βουλευματα, λόγων ματαίων οὐκ ἐπεσεύ χθονός. κἀμοὶ μὲν οὐδὲν πρᾶγμα· μὴ παύσῃ ποτὲ λόγους· ἴσασιν ἅς κείστος ἐστὶ ἀνὴρ ἃ δ' ἐκ τυράντου ἐστὶ σοι λελεγμένα, πᾶν κέρδιος ἤγού ζημιονμένη φυγῇ.
(b.) μή μοι σύ· πείθειν δόρα καὶ θεοὺς λόγους· χρυσὸς δὲ κρείσσον μύριον λόγων βροτοῖς. κείνης ὁ δαίμων, κείνα εἶν αἶψα θεός, νέα τυραννεί· τῶν δ' ἐμῶν παίδων φυγὰς ψυχῆς ἂν ἀλλαξάμεθ', οὐ χρυσοῦ μόνον. ἀλλ', ὡ τέκν', εἰσελθόντε πλησίους δόμον πατρὸς νίας γυναῖκα, δεσπότιν δ' ἐμῆν, ἱκετεύετ', ἐξαιτέσθε μὴ φεύγειν χθόνα, κόσμον δίδουσι· τοῦδε γὰρ μάλαστα δεῖ, ἐς χεῖρ' ἐκείνην δόρα δέξασθαι τάδε.

IV.

1. Give the genitive and vocative singular, and the dative and accusative plural of: ἡγεμών, καῖν, καῖν, καῖν, πελαστικός, πολέας, ῥήτωρ, τριήρης.
2. Compare αἰσχρός, ἀλγής, εὐφρων, κακός, κακός, μάλα, μέγας, μέδιος.

3. Give the principal parts of γράφω, δίδωμι, ἐλαύνω, καλέω, λείπω, τάττω.

4. Write down 3rd plural of the imperfect, and perfect indicative, active and passive, of: ἄγω, αἰνέω, βάλλω, πείθω, τῶμι, φέρω.

5. Translate and comment on case usages:—

(a.) ὄψε τῆς ἡμέρας ἀπῆλθον.

(b.) τῆς ψυχῆς τὴν ελευθερίαν προαίμασιν ἄν.

(c.) τὰ ἡμέτερα αὐτῶν ἔργα εἰρήκαμεν.

(d.) οὐκ ἔφη αὐτὸν, ἀλλὰ τὸν ἀδελφὸν κλέψαι τὸν κείνα.

6. Translate into Greek:—

(a) That day then they remained there, but the following day he told them it would be necessary for them to fight the enemy.

(b) He ordered the fastest of his ships to follow the Athenians and to report to him what they were doing.

(c) If the citizens are wise, they will not spare this man; for if he should escape, he would do much mischief.

(d) On seeing this, the Greeks fled in different directions, but one of their ships was captured, together with its crew.

(e) The general declared that, if he himself had been present, the city would not have been taken.

V.

Translate this passage from a book not prescribed:

Ἐγὼ, ὁ ἀπῆρει, ἤδομαι μὲν ἐπὶ ὑμῶν τιμώμενος, ἕπερ ἀνθρωπότης εἰμι, καὶ χάριν ἔχω, καὶ εὐχομαι εἶναι μοι τοὺς θεοὺς αἰτεῖν τινας ὑμῶν ἀγαθῶ γενέσθαι· τὸ μόνον ἐμὲ παραβῆσαι ὑφ' ὑμῶν ἄρχοντα, Λακεδαιμονίον ἀνδρὸς παρόντος, οὐδ' ὑμῶν οὐδ' ἐμοὶ δοκεῖ συμφέρον εἶναι, ἀλλ'

4. Point out in the following passages all rhetorical devices and peculiarities of style:

(a) Poetry was not the sole praise of either; for both excelled likewise in prose; but Pope did not borrow his prose from his professor. The style of Dryden's is capricious and varied; that of Pope is cautious and uniform; Dryden obeys the notions of his own mind, Pope constrains his mind to his own rules of composition. Dryden is sometimes vehement and rapid; Pope is always smooth, uniform and gentle. Dryden's page is a natural field rising into inequalities, and diversified by the varied exuberance of abundant vegetation; Pope's is a velvet lawn, shaven by the scythe and levelled by the roller.

(b) Our ships are laden with the harvest of every climate; our tables are stored with spices, and silks, and wines; our rooms are filled with pyramids of China, and adorned with the workmanship of Japan; our morning draught comes from the remotest corners of the earth; we repair ourselves by the drugs of America, and repose ourselves under Indian canopies. My friend Sir Andrew calls the vineyards of France our gardens; the spice-islands our hot-beds; the Persians our silk-weavers; and the Chinese our potters. Nature indeed furnishes us with the bare necessities of life; but traffic gives us a great variety of what is useful, and at the same time supplies us with everything that is convenient and ornamental. Nor is it the least part of this our happiness, that whilst we enjoy the remotest products of the North and South, we are free from those extremities of weather which give them birth; that our eyes are refreshed with the green fields of Britain, at the same time that our palates are refreshed with fruits that rise in the tropics.

5. Explain the words as used by Addison, "ingenious," "conversation," "give a loose to," "enthusiasm," "obscenity," "impertinent," "several," "sensible," "artificially," "undertakers."

6. Give a short history of the rise, progress, members, and end of the "Spectator Club."

7. Write a composition of not less than three paragraphs on one only of the following themes:—

- Hastings on Trial.
- Bassanio as a Fortunate Hunter.
- The Quest of Evangelines.
- The Death of Roderick Dhu.
- Peace in South Africa.
- Canada's Aid to the Empire.

MATHEMATICS.

PROFESSOR D. A. MURRAY, FR. D. Examiner.

ALGEBRA AND TRIGONOMETRY.

TIME: THREE HOURS.

N. B.—Either write on questions 1-9, or on questions 7-15

1. Simplify and express with positive indices:

$$\left(\frac{a}{x^b y}\right)^k \div \left(\frac{x^{2k} - 3^k}{y^{2k} + 1}\right)^{\frac{1}{k+3}}$$

2. A and B run a mile. At the first heat A gives B a start of 20 yards and beats him by 20 seconds. At the second heat A gives B a start of 32 seconds and beats him by $9\frac{1}{2}$ yards. Find the rate per hour at which A runs.

3. Determine the values of m for which the two roots of $2ax^2 + x^2 - 6ax - 6x + 6a + 1 = 0$ are equal.

4. Show that one root of the equation $x^2 + x + 1 = 0$ is the square of the other.

Find the square root of $89 + 24\sqrt{5}$.

5. The square of the time of a planet's revolution about the sun varies as the cube of its distance from the sun. The distances of the Earth and Mercury from the sun are as 91 to 35; how many days are there in Mercury's year?

6. The geometric mean of two numbers is 48 and the harmonic mean is $40\frac{2}{3}$; find the numbers.

7. Show that if $a = \frac{b}{i}$ ($i = \sqrt{-1}$) is the root of an equation $f(x) = 0$ with real coefficients, $a + b$ is also a root.

Solve the equation $3x^4 - 10x^3 + 4x^2 - x - 6 = 0$, one root being

$$\frac{1 - \sqrt{-3}}{2}$$

8. Show that a root of $x^3 + 10x^2 + 4x - 120 = 0$ lies between 2 and 3. Compute this root to 3 places of decimals.

9. Show that if two columns, or two rows, of a determinant be the same, the value of the determinant is zero. Solve by the determinant method, the equations $3x + 4y - z = 11$, $x + y + z = 3$, $2x - 4y + 5z = 10$.

10. Find the greatest term of $(3x^3 + 4y^3)^{14}$ when $x = 9$ and $y = 2$.

Find to four decimal places $\sqrt[5]{3128}$.

11. In a contract with an insurance company a man agrees to pay \$21.35 quarterly for 20 years, the payments being made at the beginning of the quarter. Show how to calculate the worth of the man's payments to the company at the end of the 20 years, provided that the man lives during that time and satisfies the terms of the contract.

GEOMETRY AND TRIGONOMETRY.

TIME: THREE HOURS.

N. B.—Either write on questions 1-9, or on questions 1-3 and 10-15.

1. If the rectilinear figure on the first of four straight lines be to the similar and similarly described figure on the second as a rectilinear figure on the third is to the similar and similarly described figure on the fourth, the four straight lines shall be proportional.

2. Given three straight lines passing through a common point, draw a fourth line through this point so that the four lines shall make an harmonic pencil. Prove the theorem on which your construction depends. How many solutions are there?

3. Show that if A and P are any two points, and if the polar of A with respect to any circle passes through P, then the polar of P must pass through A.

Given a circle of 5 inches radius and a point 12 inches from the centre, describe exactly the position of the polar of this point with respect to the circle. Make a figure.

4. Prove that every straight line which bisects the area of a parallelogram must pass through the intersection of its diagonals.

5. If a straight line be divided into any two parts, the sum of the squares on the whole line and on one of the parts is equal to the sum of twice the rectangle contained by the whole line and that part and the square on the other part.

6. Determine the locus of a point from which tangents drawn to two given circles are equal.

7. Divide a given triangle into two parts having the ratio 3 : 5 to one another, by a straight line parallel to one of its sides.

8. Inscribe a given pentagon in a given circle.

9. If two triangles which have a pair of equal angles, have their sides about the equal angles reciprocally proportional, the triangles are equal in area.

10. Draw a straight line perpendicular to a given plane from a given point outside it.

11. Given two straight lines not in the same plane, draw a line whose length shall be the distance between these two lines.

12. Show that through any four points not lying in the same plane, one and only one sphere can be passed.

13. If S be the focus of a parabola, FZ a line touching the parabola at P and meeting the directrix at Z and PM a line drawn at right angles to the directrix, show that PSZ is a right angle, and FZ bisects the angle SPM.

14. Show how to solve a triangle when two of its sides and their included angle are given. Derive the formulas used in the solution.

15. Show that the area of a triangle ABC is $\sqrt{s(s-a)(s-b)(s-c)}$, in which s denotes half the perimeter.

CHEMISTRY.

PROFESSOR E. MACKAY, Ph. D. Examiner.

TIME: THREE HOURS.

N. B.—Definite chemical reactions should be expressed by equations.

1. Describe the preparation of (a) hydrogen sulphide; (b) ammonium sulphide; (c) sulphurous acid.

2. State fully how you could identify the following substances: Sulphuric acid, water, charcoal, borax, baking soda.

3. What is the action of hydrochloric acid upon the following substances: solution of caustic potash, limestone, solution of silver nitrate, manganese dioxide, iron?

4. Describe two ways in which caustic soda may be prepared from substances occurring in nature.

5. Give full directions for determining the percentage of oxygen in a given specimen of potassium chlorate.

6. Nitrous oxide contains 63.6 per cent. by weight of nitrogen, nitric oxide 46.7 per cent. and nitrogen peroxide 30.4 per cent. by weight of nitrogen. Draw any deductions which you think these facts justify.

7. Describe fully how the volumetric composition of either ammonia, or hydrochloric acid may be obtained.

8. Write a chemical equation and state the facts expressed by it without using any theoretical terms.

9. One gram of a mineral containing calcium carbonate is acted upon by an excess of hydrochloric acid and the carbon dioxide set free is found to measure, under standard conditions, 120 cc. Deduce the percentage of calcium carbonate in the mineral (atomic weight of calcium = 40).

* TIME TABLE—FACULTY OF LAW

Hours	Monday	Tuesday	Wednesday	Thursday	Friday
9 to 10	Shipping	Course, History	Court, Law	Court, History	Policy
10 to 11	Conflict of Laws				Const. Law
11 to 12					International Law
12 to 1			Sales	Most Const.	Equity
1 to 2			Contracts		Contracts
2 to 3	Real Property, 1st yr.	Real Property, 2nd yr.	Procedure	Evidence	Torts
3 to 4					

* Subject to alteration.