

HALIFAX, NOVA SCOTIA.



IIAI,IHAX:
Printed for the Universtty by the Nova Scotia Printing Company. 1890.

## CALENDAR

OF

## DALHOUSIE COLLEGE

## UNIVERSITY,

HALIFAX, NOVA SCOTIA.

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1890-91_
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HALIFAX:
Printed for the University by the Nova Scotia Printing Company. 1890.

## 89,171-6ct.3/53.

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## NOTICE.



## In Atmoxiam.

REV. WM. LYALL, LL.D., F.R.S.C.

Born at Paisley, June if., i8it.

Appointed Professor of Logic and Psychology in this University, 1863.

Died January I7., I890,

Deeply lamented by all connected with the University.

## TIME TABLE-FACULTY OF ARTS.

|  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

* The hour of this class may be changed if any of the members of it wish to take the History Class.


# University Almanac, 1890-9|, 

## 1890.

Aug. 25, M.-Last day for receiving notices of Supplementary and Matriculation Examinations (Law Faculty).
Sept. 2, Tu.-Session (Law Faculty) begins.-Matriculation and Supplementary Examinations (Law Fuculty).-Registration and payment of class fees (Law Faculty).-Meeting of Law Faculty, 4. P. M.
3, W.-Lectures begin (Law Faculty.)
4, Th.-Meeting of Senate, 11 A. M.
5, F.-Meeting of Faculty of Arts, 11 A. M.-Meeting of Faculty of Law, 4 p. m
9 , Tu. -3 P. M., Registration of candidates for Matriculation and BursaryExaminations (Arts Faculty).
10, W.-Session (Arts Faculty) begins.- Examinations for Senior and Junior Munro Exhibitions and Bursaries, and for 2nd Year Matriculation (Arts Faculty), begin: 9.45 A. M., Latin.-3 p. M., Greek,

11, Th.- 10 A. M., Geometry.- 3 P. M., Arithmetic and Algebra.
12, F.- 10 A. M., History and Geography.-3 p. M., English Language.
13, Sa.- 10 A. M., Chemistry.-3 p. M., Botany.
15, M. - 10 A. m., French.-3 p. M., German.
" -Supplementary Examinations (Arts Faculty) begin, 10 A . M.
16, Tu.-1st year Matriculation Examination (Arts Faculty) begins, 10 A. M.
18, Th .-Intimation as to elective subjects, to be made by Undergraduates of 3rd and 4th Years, on or before this day.
" " -Mreting of Faculty of Arts, 9 A. m.
" "-Convocation, 3 p. m.
19, F.--Matriculation, Registration amd Gymnasium Tickets issued at hours specified in notice in College Hall (Arts Faculty).
" " - Lectures begin (Arts Faculty).
22, M.-Meeting of Faculty of Law, 4. P. M.
Oct. 6, M.-Meeting of Governors.
8, W.-Final Matriculation Examinations (Arts Faculty) begin :
3 P. M., English, History and Gcography.
9, Th.- 3 ғ. M., Classics and Modern Languages.
10, F.- 3 р. M, Mathematics.
11, Sa.- $10 \mathrm{~A} . \mathrm{M}$. , Chemistry.
14, Tu.-Meeting of Faeulty of Arts, 1 p. n.
15, W.-Last day for receiving applications for Medical Matriculation Examination.
16, Th.-Meeting of Faculty of Arts, 4 p. M.
17. F.-Returns as to residence and Church attendance, to be made on or before this day.
29, W.-Session (Medical Faculty) begins. Matriculation Examination (Medical Futulty) begins.
Nov. 1, Sa.-Results of Medical Matriculation Examination declared and certificates issued.
3, M.-Registration, payment of class fees, and beginning of lectures (Medical Faculty.)
6, Th.-Meeting of Faculty of Law, 4 P. M.

- ——Thanksgiving Day and the following day-no lectures.

Dec. 4, Th.-Meeting of the Faculty of Law, 4 p. m.
22, M.-No lectures.-Christmes Vacation begins*.

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## 1891.

Jan. 2, F.-Meeting of Governors.
7, W.-Lectures resumed.
8, Th.-Meeting of Faculty of Law, 4 p. M.
23, F.-George Munro Day.-No lectures.
Feb. 2, M.-Meeting of the Senate, 4 P. M.
5, Th.-Meeting of the Faculty of Law, 4 P. M.
11, W.-Ash Wednesday.-No lectures.
13, F.-Last day of Lectures (Law Factulty).
Mar. 2, M.-Last day for receiving M. A. Theses.
9, M.-Meeting of Senate, 4 P. M.
27, F.-Good Friday.-No lectures.
April 1, W.-Meeting of Governors.-Last day for receiving applications for Primary and Final M. D., C. M. Examinations.
7, Tu.-Last day of lectures (Arts Faculty).-Meeting of Faculty of Arts, 4 P. M.
9, Th.-Spring Examinations (Arts Faculty) begin :
10 A. M., Practical Chemistry and Practical Physics.
10, F.- 9 A. M., Latin.
11.15 A. M., French.

3 P. M., Logic and Botany.
" "-Lectures close (Medieal Faculty).
11, Sa.- 9 A. M., Additional Latin.
11.15 A. M., Mathematics, History (3rd year), and Senior Physics.

3 P. M., English (1st year) and Addl. English (3rd and 4th years).
" "-Certificates of Class attendance (Medical Faculty) issued.
13, M.- 9 A. M., Political Economy.
11.15 A. M., English (2nd, 3rd and 4th years).

3 P. M., Chemistry (Inorganic and Organic).
14, Tu.-Last day for returning books to the University Library.-Primary and Final M. D., C. M. Examinations begin.
" " 9 A. M., Greek.
11.15 A. M , Addl. Greek (1st and 2nd Years), Junior Physics, and History (4th year).

15, W.- 9 A.M. Mathematics and Dynamics.
11.15 A. M., Addl. Mathematics and Addl. Physics.

3 P. M., Addl. Greek (3rd and 4th years), Addl. Dynamics, and Addl. Ehglish (1st and 2nd years).
16, Th.- 9 A. M., German.
11.15 A. M., Additional French.

3 P. M., Ethics.
17, F.- 9. A. M., Additional Ethics.
11.15 A. M., Additional German.

3 P. M., Additional Metaphysics.
20, M.-Oral Examinations (Medical Faculty).
21, Tu.-Meeting of Faculty of Arts, 10. A. M.
22, W.-Meeting of the Senate, 10 A. M.-Results of Examinations (Arts Faculty) declared.
23, Th.-3 p. m., Convocation.

## HISTORICAL SKETCH.

Dalhousie College was founded by the Earl of Dalhousie in 1821, "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. These funds the British Government authorized the Earl of Dalhousie, Sir John's successor, to expend "in defraying the expenses of any improvement which it might seem expedient to undertake in the Province" ; and the Earl, believing that " a Seminary for the higher branches of education is much needed in Halifax-the seat of the Legislature-of the courts of justice-of the military and mercantile Society," decided upon "founding a College or Academy on the same plan and principle of that at 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."

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 the Speaker of the House of Assembly.

After unsuccessful efforts 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 such 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 vicw 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 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 ont,

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

1. The Board of Governors now appointed. consisting of the Honorable William Young, the Honorable Joseph Howe, Charles Tupper, S. Leonard Shannon, John W. Ritchie, and James F. Avery, Esquires, shall be a body politic and corporate, by the name and style of the Governors of Dalhousie Colloge, at Halifax, and shall have and exercise all usual powers and authorities as such, and have the title, control and disposition of the building 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 removable 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 of 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 : 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 power to supply the vacaney 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 bye-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 facu'ties 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 bye-laws.
6. No religious tests or subscriptions shall be required of the professors, scholars, graduates, students, or officers of the College.
7. The internal regulation 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 Govornors.
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 repayment thereof."

This Act was afterwards amended by the following Acts :-

## 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-inCouncil.
2. The Governors shall have power to affiliate to Dalhousie College any other Colleges desirons 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 therenf, 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 Dalhousic 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 Acts of 1875 , 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 the 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.

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 1883 a Faculty of Law was added.

In 1879, Cteorge Munro, Esq., 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 an̨d Political Economy. In 1882, he fouuded a chair of English Language and Literature. In 1883, he added to the staff of the College a Professor of Constitutional and International Law, and Tutors in Classics and Mathematics. In 1884, he founded a Professorship im Metaphysics. Since 1880, he has provided the University with Exhibitions and Bursaries, to the amount of $\$ 61,648.61$, which, according to his own desire, have been so offered for competition as to stimulate to greater factivity 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 has come 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 has founded shall be called the George Menro Chatrs of Physics, of History and Political Economy, of English Language. and Literatcre, of Constitutional and International Law, and of Metaphysics respectively.

In 1883, 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 should 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 connnectlon 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 Chatrs of Classics, Chemistry and Modern Languages were founded."

In 1886, 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 Young bequeathed to the University half the residue of his estate, together with a Prize Fund of $\$ 4000$, and the amount remaining unpaid of his sulscription to the Building Fund. The following are extracts from his will:
"I bequeath to the Governors of Dalhousie College at Halifax, the sum of $\$ 4000$ 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 of the value of $\$ 50$, to be called Sir William Young's medal, and to be annually awarded for scholastic eminence, and to have the recipieut'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."

In 1887, J. F. Avery, M. D., made the following bequest 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 Senatus of the said College, and the interest thereof to be appropriated for an annual prize."

In I887, Mrs. Harriet Elizabeth Mackenzie, or Morrison, of Stornoway, Scotland, formerly of Pictou, N. S., made the following bequest :-
"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 bnrsary shall be called the 'Mackenzie Bursary,' and that students of the name of Mackenzie, Maclean, and Fraser shall have a preference in the selection of beneficiaries therefor."

The following donations have been made to the Endowment Fund:
Hon. Sir Wm. Young, W. J. Stairs, Esq., Hon. Stayley Brown, John Gibson, Esq., John P. Mott, Esq., Wm. P. West, Esq., Thos. A. Ritchie, Esq., and Hon. Robert Boak, $\$ 1000$ each; Adam Burns, Esq., Peter Jack, Esq., Hon. Jeremiah Northup, Prof. Lawson, and Alex. McLeod, Esq., \$500 each.

The following subscriptions have been made to the Building Fund:
Rev. Louis H. Jordan, $\$ 1000$; John Doull, John S. Maclean, R. Sedgewick, $\$ 750$ each; Thomas Bayne, John McNab, Adam Burns, Hon. R. Boak, Dr. Avery, $\$ 500$ each; President Forrest, $\$ 375$; James Forrest, $\$ 300$; Prof. John Johnson, Peter Jack, Wm. Miller, Prof. Macdonald, $\$ 250$ each ; Prof. Macliregor, A. \& W. Mackinlay, \$225 each ; Prof. Alexander, Judge Graham, $\$ 200$ each; James Scott, R. B. Seeton, Rev. John McMillan, Wm. Robertson, J. C. Mackintosh, H. McD. Henry, John Y. Payzant, Pearson, Morrison \& Forbes, $\$ 150$ each; J. J. Stewart, $\$ 120$; Rev. E. Scutt, Peter Ross, H. W. C. Boak, Pictou Academy, $\$ 100$ each; Wm. B. Wallace, Arthur Drysdale, E L. Newcombe, Alfred Costley, H. W. Barnes, Hugh McKenzie, $\$ 75$ each; W. C. Silver, Graham Fraser, $\$ 50$ each; E. McKay, $\$ 30$; J. M. Stewart, $\$ 25$; Rev. A. Falconer, $\$ 20$; J. H. Sinclair, Dr. J. Stewart, $\$ 10$ each. In all, $\$ 10,640$.

The following donations have been made from time to time to meet current expenses:

Hon. Sir Wm. Young, $\$ 500$; John Doull, Esq., $\$ 400$; J. S. Maclean, Esq., $\$ 300$; J. F. Avery, Esq., M. D., S. Fleming, Esq., C. M. G., Rev. Principal Grant, D. D., W. J. Stairs, Esq., Thos. Bayne, Esq., John Gibson, Esq., Rev. J. McMillan, B. D., and John McNab, Esq., $\$ 200$ each ; James Scott, Esq., and A. K. Mackinlay, Esq., $\$ 180$ each; Hon. R. Boak, and the Medical Faculty, $\$ 160$ each; Rev. President Forrest, D. D., Hon. A. G. Jones, and Geo. Thomson, Esq., $\$ 150$ each; A. Burns, Esq., $\$ 125$; J. J. Bremner, Esq., $\$ 120$; B. H. Collins, Esq., J. Donaldson, Esq., Prof. J. DeMill, Prof. J. Johnson, Prof. G. Lawson, Prof. J. Liechti, Alex. McLeod, Esq., Robt. Morrow, Esq., Hon. Jeremiah Northup, Joseph Northup, Esq., T. A. Ritchie, Esq., Rev. Principal Ross, D. D., Ed. Smith, Esq., R. H. Skimmings, Esq., John Stairs, Esq., James Thomson, Esq., and Hon. Sir Charles Tupper, $\$ 100$ each ; J. W. Carmichael, Esq., C. D. Hunter, Esq., Major-General Laurie, Messrs. Lawson, Harrington \& Co., Prof C. Macdonald, J. P. Mott, Esq., and Hon. Judge Ritchie, $\$ 80$ each; G. P. Mitchell, Esq., and Hon. S. L. Shannon, $\$ 60$ each ; J. B. Duffus, Esq., R. W. Fraser, Esq., Peter Jack, Esq., and W. H. Neal, Esq., $\$ 50$ each ; with smaller sums amounting to $\$ 1349$.

The following donations have been made for the purpose of providing seientific apparatus :

Hon. Sir William Young, $\$ 500$; Prof. J. G. MacGregor, $\$ 200$; The Alumni Association, $\$ 150$; J. F. Avery, Esq., M. D., Thomas Bayne, Esq., Hon. R. Boak, Alex. McLeor, Esq., John McNab, Esq., Hon. Jeremiah Northup, W. J. Stairs, Esq., and W. P. West, Esq., \$100
each ; Thos. A. Brown, Esq., Messrs. Doull \& Miller, Messrs. Esson \& Co., John Gibson, Esq., Peter Jack, Esq., Prof. G. Lawson, J. S. Maclean, Esq., Robert Morrow, Esq., Hon. J. W. Ritchie, James Thomson, Esq., and a Friend, $\$ 50$ each ; with smaller sums amounting to $\$ 645$.

For other benefactions, see under headings: Library, Museum and Gymnasium.

In addition to the members of the present staff, the following have been Professors or Lecturers in the University :
Rev. Thomas McCulloch, D.D., 1838-43, President, and Professor of Moral Philosophy, Lugic and Rhetoric.
Rev. Alexander Romans, 1838-42, Professor of Classics.
Rev. James McIntosh, 1838-44, Professor of Mathematics and Natural Philosophy.
Rev. Frederick Tompkins, M. A., LL. D. (Lond.), now Barrister, London, G. B., 1856-7, Professor of Mathematics and Natural Philosophy.
Rev. George Cornish, M. A., LL. D., now Professor of Classics, McGiill College, 1856-7, Professor of Classics.
Thomas McCulloch, 1863-5, Professor of Natural Philosophy.
John James MacKenzie, M.A., Ph. D., 1877-79, Professor of Physics.
Herbert A. Bayne, M. A., Ph. D., F. R. S. C., late Professor of Chemistry, Royal Military College, Kingston, Ont., 1877-79, Lecturer on Organic Chemistry and Chemical Analysis.
James Demill, A.M., 1866-80, Professor of Rhetoric and History.
Rev. David Honeyman, D. C. L., F. S. A., F. R. S. C., late Provincial Geologist, 1878-83, Prof. of Geology and Palæontology.
Rev. James Ross, D. D., 1863-85, Principal, and Professor of Ethics.
J. G. Schurman, M. A., D.Sc., now Professor of Ethics and Metaphysics, Cornell University, 1882-86, Professor of English Literature and Metaphysics.
Hon. Sir J. S. D. Thompson, now Minister of Justice, 1883-86, Lecturer on Procedure and Evidence.
Robt. Sedqewick, B.A., Q.C., now Deputy Minister of Justice, 1883-88, Lecturer on Equity Jurisprudence.
W. J. Alexander, B.A., Ph. D., now Professor of English in the University of Toronto, 1884-89, Professor of English Language and Literature.
Rev. Wm. Lyall, LL.D., F.R.S.C., 1863-90, Professor of Philosophy.

# Dalhousic College \& E Enibersity. 

## BOARD OF GOVERNORS.

hon. Sir Adams G. Archibald, K. C. M. G., P. C., M. P., D. C. L., Q. C., Chairman.<br>Hon. Sir Charles Tupper, Bart., K. C. M. G., C. B., M. D.<br>Hon. S. L: Shannon, D. C. L., Q. C., Judge of Probate.<br>Rev. Juhn McMillan, M. A., B. D.<br>Rev. President Forrest, D. D.<br>Hon. Alfred G. Jones, P. C., M. P.<br>John Doull, Esq.<br>Rev. Robert Murray.<br>Hon. James Macdonald, Chief Justice of Nova Scotia.<br>Wallace Graham, Esq., A. B., Judge of the Supreme Court.<br>E. L. Newcombe, Esq., B. A., LL. B., Representative of the Alumni Association.<br>Adam Buris, Esq.<br>A. H. MacKay, Esq, B. A., B.Sc., Principal of the Halifax. Academy. His Worshit the Mayor of Halifax, ex officio.<br>D. A. Campbell, Esq., M. D., Representative of the Alumni Association.<br>J. Norman Rttchie, Esq., Judge of the Supreme Conrt. James Forrest, B. A., Treasurer. William M. Dooll, Secretary.

## SENATUS ACADEMICUS.

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Charles Macdonald, M. A.
John Johnson, M. A.
George Lawson, Ph. D., Ll. D., F. I. C., Secretary.
J. G. MacGregor, M. A., D. Sc.

Richard C. Weldon, M. A., Ph. D., M. P.
James Liechti, M. A.
Benjamix Russell, A. M.
James Seth, M. A.
Archibald MacMechan, B. A., Ph. D.

## ACAIDEMIC STAFF.

Rev. President Forrest, D. D., F. S. Sc. Lond., George Munro Professor of History and Political Economy.
Charles Macdonald, M. A. (Aberd.), Professor of Mathematics.
John Jounson, M. A. (Dub.), McLeod Professor of Classics.
George Lawson, Ph. D., Ll. D., F. I. C., F. R. S. C., McLeod Professor of Chemistry and Mineralogy.
James Liechti, M.A. (Vind.), McLeod Professor of Modern Languages.
James Gordon MacGregor, M.A.(Dal.), D.Sc. (Lond.), F.R.SS.E. \&C., George Munro Professor of Physics.
Richard Chapman Weldon, A. M. (Mt. All.), Ph. D. (Yale), George Munro Professor of Constitutional and International Law.
Benjamin Russell, A. M. (Mt. All.), Professor of Contracts, Lecturer on Bills and Notes, Sales and Equity.
James Seth, M. A. (Edin.), George Munro Professor of Metaphysics and Ethics.
Akchibald MacMechan, B. A. (Toronto), Ph. D. (J. H. U.), George Munro Professor of English Language and Literature.
Hon. Samuel Leonard Shannon, D. C. L. (Vind.), Q. C., Judge of Probate, Lecturer on Real Property and Crimes, and Examiner in Medical Jurisprndence.
Wallace Graham, A. B. (Acad.), Judge of the Supreme Court, Lecturer on Insurance.
John Young Payzant, A. M. (Acad.), Lecturer on Torts.
C. Sidney Harrington, Q. C., Lecturer on Evidence and Partnership.

Hon. Charles J. Townshend, B. A., B. C. L. (Vind.), Judge of the Supreme Court, Lecturer on Equity Jurisprudence.
Wibliam Henry Waddell, Lecturer on Voice Culture and Elocution-
John Somers, M. D. (Bell. Hosp. Med. Coll., N. Y.), Examiner in Physiology and Histology.
George L. Sinclatr, M. D. (Coll. P. and S., N. Y.), M. D. (Univ. Hal.), Examiner in Anatomy and Practical Anatomy.
D. A. Campbell, M. D., C. M. (Dal.), Examiner in Materia Medica and Therapeutics.
A. W. H. Lindsay, B. A. (Dal.), M. D., C. M. (Dal.), M. B., C. M. (Edin.), Examiner in Anatomy and Practical Anatomy.
John Stewart, M. B., C. M. (Edin.), Examiner in Surgery.
A. C. Page, M. D. (Harv.), President N. S. Medical Board, Examiner in Medicine.
Wm. B. Slayter, M. D. (Chic.), L. Midw. (Dub.), M. R. C. S. Eng., L. R. C. P. Lond., F. O. S. Lond., Examiner in Obstetrics and Diseases of Women and Children.
Hon. D. McN. Parker, M. D. (Edin.), L. R. C. S. Edin., Examiner in Obstetrics and Diseases of Women and Children.
Edward Farrell, M.D. (Coll. P. and S., N. Y.), Examiner in Surgery.

Andrew J. Cowie, M.D. (Univ. Penn.), M. R. C. P. Lond., Examinerin Clinical Medicine.
John F. Black, M. D. (Coll. P. and S., N. Y.), Examiner in Clinicat Surgery.
Alexander P. Reid, M. D., C. M. (McGill), L. R. C. S. Edin., L. C. P. and S. Can., Supt. Hospital for Insane, Examiner in Medical Jurisprudence.
Arthur Morrow, M. B., C. M. (Edin.), Examiner in Physiology and Histology.
William H. Simson, Ph. G. (Phil.), Mem. N. S. Ph. Soc., Examiner in Pharmacy.
James Curtis Shaw, B. A. (Dal.), George Munro Tutor in Classics.
Alex. McGeechy Morrison, B. A. (Dal.), George Munro Tutor ine. Mathematics.
Sergeant Kelly, Chief Instructor in Gymnastics.

> Librarian: Professor Seth.
> Assistant Librarians: $\begin{cases}\mathrm{Mr}_{\mathrm{k}} . & \text { Shaw. } \\ \mathrm{Mr}_{\mathrm{R}} . & \text { Morrison. }\end{cases}$

Curator of the Museum: Professor Lawson.

Janitor: Archibald Dunlor.

## dfaculty of Alts.

The President.<br>Professors : Macdonald, Johnson, Lawson, Liechti, MacGregor, Seth, MacMechan.<br>Secretary of the Faculty-Professor MacGregor.

Tutors: Shaw.
Morrison.

## § I.-Courses of Instruction.

I.-CLASSICS.
(McLeod Professorship.)

First Year Latin Class.
Professor's Class-Mondays, Wednesdays, and Fridays, 10-11 A.M.After Christmas the class is conducted by the Tutor.
$\ddagger$ Tutorial Class-Mondays and Wednesdays, 12 M.-1 P. M.
Subjects of study:
Cicero: Pro Lege Manilia. (Wilkin's, Macmillan, N. Y.). * Pro Milone (Purton's, sold by Maemillan, N. Y.). Virgil: Eneid, Book V. (Calvert's, Macmillin, N. Y.). Composition: Arnold's Latin Prose by Bradley, (Rivingtons, London). Grammar : Syntax and Prosody (Allen and Greenough's, Ginn, Boston.) History: Roman History (Smith's, Harpers, N, Y.)

[^1]
## Second Year Latin Class,

$\ddagger$ Mondays, Wednesdays and Fridays, 11 A. M.-12 M.
Subjects of study:
Horace: Odes, Books I, *II, *III, (Page's, Macmillan, N. Y.). Livy: Book I, (Stephenson's, Macmillan, N. Y.). Composition: Easy pieces for Latin Prose, Second Series, (Champneys and Rundall, Rivingtons, London). History: Grecian History, (Smith's smaller edit., Harpers, N. Y.).

## Third and Fourth Year Latin Class.

Mondays, Wedresdays and Fridays, 12 M.-1 P. M.

Subjects of study in alternate years :
For 1890-91.-Horace: Selected Satires, (Macleane's small ed., Whittaker, London.) Tacitus: Annals, Bk. I, (Furneaux', sold by Macmillan, N. Y.).-Composition: Bennett's Second Latin Writer, (Rivingtons, London). +Tacitus: Annals, Bk. XIV. + Merivale's Hist. of the Romans, chaps. xxx, xxxi, xxxii, xxxix-xli.

For 1891-92.-Tacitus: Agricola (Church \& Brodribb's, Macmillan, N. Y.). Plautus: Captivi (Lindsay's, sold by Macmillan, N. Y.). Juvenal: Satires III, X, XIII, (Hardy's, Macmillan, N. Y., 5s.) -Composition : Bennett's Second Latin W riter, (Rivingtons, London.) † Cicero: Selected Letters, (Prichard and Bernard, sold by Macmillan, N. Y.). + Roman Provincial Administration by Arnold.

## First Year Greek Class.

Tuesdays and Thursdays. 10-11 A. M. ; Fridays, 12 M.-1 P. M.

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\ddagger \mp@code { ( C o n d u c t e d ~ b y ~ t h e ~ T u t o r . ) }
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Subjects of study :
Lucian: Selections, (Abbott's, Rivingtons, London.) *Xenophon : Cyropædia, Book I, (Bigg's, sold by Macmillan, N. Y.). Composition : Elementary Greek Prose Competition, (by Fletcher \& Nicholson, pub. by W. Bailie, Kingston, Ont., ) introductory rules ; oral and *written exercises.-Grammar : Accidence, (Goodwin's, Ginn \& Co., Boston.)

Second Year Greek Class.

$$
\ddagger \text { Tuesdays and Thursdays, } 11 \text { A. M. - } 12 \text { M. }
$$

Subjects of study :
Homer: Odyssey, Book IX, (Edward's, sold by Macmillan, N. Y.). Xenophon: Hellenica, Book I, (Underhill's, sold by Macmillan, N. Y.). *Demosthenes: Olynthiacs, (Heslop's, Rivingtons, London.)-Composition: As in First Year's Class; also Sidgwick's Introduction to Greek Prose Composition.

[^2]
## Third and Fourth Year Greek Class.

Tuesdays and Thursdays, 12 M.--1 P. M.

## Subjects of study in alternate years:

For 1890-91.-Demosthenes : Philippics, I, II, III, (Tarbell's, Ginn \& Co., Boston.) Euripides: Medea, (Verral's, Macmillan, N. Y.Composition : Sidgwick's Introduction to Greek Prose Composition ; oral and *written exercises. *Philology: Peile's Primer of Comparative Philology. +Euripides: Hecuba.

For 1891-92.-Plato : Apologia Socratis: (Adam's, sold by Macmillan, N. Y.). Aeschylus : Prometheus Vinctus (Prickard's, sold by Macmillan, N. Y.).-Composition : Sidgwick's Introduction to Greek Prose Composition : introductory rules ; oral and *written exercises. * Philology : Müller's Science of Language, vol. I, chaps. 1-7. + Plato : Republic, Book I.

## Advanced Class.

> Twice or three times a week.

In this class the Latin and Greek Subjects prescribed for the Special Course in Classics are read, and Prose Composition is regularly practised.

## II.-MODERN LANGUAGES.

(McLeod Professorship.)
Professor $\qquad$ James Liechti, M. A.

## First French Class.

Tuesdays and Thursdays, 3-4 P. M.
Subjects of study :
Macmillan's Progressive French Reader, II year, (Fasnacht.) Molière: Le Rourgeois Gentilhomme, (Macmillan \& Co.) or Scribe: Le verre d'eau. Exercises in Grammar and Composition.

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.

${ }_{2}^{2}$ uesdays and Thursdays, 2-3 P.M.
Subjects of study :
Molière's: L'Avare. Racine: Esther, (Macmillan \& Co.) Corneille : Cinna. Translation from English writers. Exercises in Syntax. Translation of passages (not prescribed) from Modern authors.

[^3]Molièr'es Misauthrope (Macmillan \& Co.) and either Saintine's Picciola or Madame de Staël's L'Allemagne 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 (Saintsbury's Primer).

## Third French Class.

Tuesdays and Thursdays, 9-IO A. M.
Subjects of study :
From 1890-91.-Molière: Les femmes savantes. Racine : Iphigenie en Aulide. Corneille: Le Cid. (Clarendon Press). Translations from English writers. Original essays. Translation of passages (not prescribed) from Modern authors.

From 1991-92. -- Molière: Les Précieuses ridicules. Racine : Phèdre. (orneille: Horace. Translations from English writers. Original essays. Translation of passages (not prescribed) from Modern authors.

Molière's Tartufe (Macmillan \& Co.,) and eitner: Victor Hugo's Les Travailleurs de la mer (Rivingtons) or: Scribe's Bertrand et Raton are prescribed for private reading to candidates for a First Class position.

Text Books: Brachet's Public School French Grammar. Saintsbury's Short history of French Literature,

## First German Class.

Mondays, Wednesdays and Fridays, 3-4 P. M.
Subjects of study :
Adler's Reader, parts III, IV and V ; Schiller: Wilhelm Tell, (Macmillan \& Co.) Gustav Freytag: Die Journalisten. Exercises in Grammar and Composition.

Text Bonk: Otto's German Grammar. Other Text Books required will be announced at the opeuing of the Session.

## Second German Class.

Mondays, Wednesdays and Hridays, 2-3 P. M.

Subjects of study :
From 1890-91. - Goethe : Egmont. Schiller: Maria Stuart. (Macmillan \& Co.). Translations from English writers. Original compositions. Translation of passage (not prescribed) from Modern authors.

From 1891-92. - Goethe : Hermann und Dorothea (Clarendon Press). Lessing: Minna von Barnhelm (Macmillan \& Co.). Translations from English writers. Original compositions. Translation of passages (not prescribed) from Modern authors.

Schiller's Jungfrau von Orleans, and either Heine's Prosa (Macmillan \& Co.) or Schiller's Historische Skizzen (Clarendon Press),
are prescribed for private reading to candidates for a First Class position.

Text Books: As in First Class. Critical Outline of the Literature of Germany (by Alb. Selss, Ph. D. - Longmans, Green \& Co.).

## Third German Class.

Mondays, Wednesdays and Fridays, 9-10 A. M.
Subjects of study :
For 1890-91.-Lessing: Minna von Barnhelm (Macmillan \& Co.) Goethe: Götz von Berlichingen (Macmillan \& Co.) Prose composition. Lectures on German Literature.

For 1891-92.- Lessing : Nathan der Weise. Goethe: Egmont. Prose cemposition. Lectures on German Literature.

Schiller's Wallrnstein's Tod, (George Bell \& Sons, and either Gouthe's Foust, part I. (by Jane Lee ; Macmillan \& Co.) or Heine's Harzreise (Macmillan \& Co.), are prescribed for private reading to candidates for a First Class position.

Text Books: As in Second Class.

## III.--ENGLISH LANGUAGE \& LITERATURE. +

(George Munro Professorship.)
Professor $\ldots$......................Arch'd macmedhan, Ph.d.

First Year Class.
T'uesdays and Thursdays, 12-1 P. M.
General Principles of Composition, Characteristics of Style. Exercises, weekly, throughout the year.

As an illustration of the principles laid down in the course on Composition, and as an introduction to the study of literature, the following works will be read critically :-

Dryden: Mac Flecknoe, St. Cecilia's Day, Alexander's Feast, * Absalom and Achitophel. Addison: Select Essays. Pope: Rape of the Lock, *Essay on Man. Johnson: Life of Pope, *Lives of Dryden, Addison and Gray. Gray: Elegy. Goldsmith: Traveller, Deserted Village, *Select Essays. Burns: Twa Dogs, Cottar's Saturday Night. Macaulay : Samuel Johnson.

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

Books recommended: Nichol's Composition Primer (Macmillan); Clarendon Press Edition of Dryden; Hale's Longer English Poems (Macmillan)-which contains all the poetry read in the class.

[^4]
## Second Year Class.

Mondays, Wednesdays and Fridays, 12-1 P. M.
Critical readings of select works of Shakespeare and Milton, with lectures thereon :-

Shakespeare: As You Like It, Romeo and Juliet, *Midsummer Night's Dream, * Henry V., Macbeth, The Merchant of Venice, *Julius Cæsar, * The Tempest. Milton : Comus; Paradise Lost, Bks. I.-IV.

One written report on a special piece of work, assigned by the instructor, is required from each student. Candidates for First Class are required to present two such reports.

Books recommended: Rolfe's Edition of the separate plays of Shakespeare. Dowden's Shakespeare Prinier, Clarendon Press Edition of Milton.

## Third and Fourth Year Class.

## Twice a week.

1890-91.-Chaucer: Prologue, Knight's Tale and Nonne Preste's Tale. Sweet's Middle English Primer, II. Spenser: Faerie Queen, Bks. I., II. Marlowe: Dr. Faustus.

History of Literature: T'en Brink.
1891-2.-Scott: Waverley, Marmion. Byron: Childe Harold Wordsworth: Poems, selected and edited by Matthew Arnold. Tennyson: Rowe \& Webb's selections. Browning: My Last Duchess Lost Leader, Andrea del Sarto, The Bishop Orders his Tomb, Epistle of Karshish. Ruskin: Sesame and Lilies. Carlyle: Sartor Resartus.

History of Literature: Oliphant.
Candidates for First Class will be examined in the work laid down for the first half of the special English course, for that year (§ Ix, 6.)

## Advanced Class.

Development of English Language and Literature to the year 1300, with special study of select works (§ Ix, 6.)

## IV.- HISTORY AND POLITICAL ECONOMY.

(George Munro Professorship.)
Professor
Rev. President Forrest.

## Third Year History Class.

Mondays and Wednesdays, 11 A.M.-12 M., and Fridays, 10-11 A.M.
Subjects of study :
Mediæval History and Modern History to 1555.
The class work will be conducted by means of lectures and examinations on prescribed reading.

Text Boo7: : Gibbon's Decline and Fall of the Roman Empire (Student's Edition.)
Books recommended: Hallan's Middle Ages: Bryce's Holy Roman Empire; Irving's Mahomet and his Successors ; Guizot's History of Civilization ; Michaud's History of the Crusades; Robertson's Charles V. ; Stubb's Constitutional History of England.

[^5]Candidates for First Class will be examined on Hallam's Middle Ages, Bryce's Holy Roman Empire, and Introductory Sections of Robertson's Charles V.

## Fourth Year History Class.

Tuesdays and Thursdays, 11 A. M.--12 M.
Subjects of study :
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.

Books recommended: Green's England, vol. iv.; Guizot's France (Masson's Abridgment); Menzel's Germany; Motley's Dutch Republic ; Bancroft's United States; Parkman's France and England in North America.

Candidates for First Class will be examined on Green and Guizot, and a few chapters to be specified in the others.

## Advanced History Class.

Once a week.
Subjects of study :
English History from 1603 to 1688.
The work of this class will be conducted by means of lectures and examinations on reading prescribed from Clarendon, Gardiner, Green, Hallam, Banke, 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.

A knowledge of the history and bibliography of the subject as presented in Cossa's "Guide to the study of Political Economy" will be required of students seeking First Class Distinction.

Text Book: Mill's Principles of Political Econon y,

## Advanced Political Economy Class. <br> Twice a week.

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

# V.-METAPHYSICS AND ETHICS. 

(George Munro Professorship.)
Prafessor $\qquad$ J JMES SETH, M. A.

## Metaphysics.*

> Mondays and Wednesdays, 10-11; Fridays, 9-10 A. M.

After an introductory account of the nature and scope of Philosophy, in its various departments, the chief types of metaphysical theory will be expounded in the light of their historical development, and subjected to critical examination, viz. :-I. Dualism $(a)$ of the Scottish Common-Sense Philosophy, (b) of Locke, (c) of Cartesian speculation ; II. Materialism, ancient and modern; III. Idealism, (a) Platonic and Aristotelian, (b) Berkeleian, (c) Kantian, (d) Hegelian.

The work of the class will he conducted mainly by lectures, but will also embrace essays, exercises, and special readings, as well as free discussion of the subjects of the course.

Text Book: Belfort Bax's Handbook to the History of Philosophy (Geo. Bell \& Sons.)

Recommended: Schwegler's, Erdmann's and Ueberweg's Histories of Philo sophy.

Ethics (Third and Fourth Years.)
Mondays, Wednesdays and Fridays, 11 A. M.-12 M.
This course will consist of (1) an introductory account of the province and method of Ethics and its relation to other branches of Philosophy, and a consideration of the two aspects of man's life as a member of society and as an individual; (2) a discussion of the ethical postulate, or Freedom ; (3) a critical examination of the chief modern theories of the ethical End, viz. : the Intuitional, the Utilitarian, and the Transcendental.

The work of the class will be conducted mainly by lectures, but will also embrace oral examination and discussion. Essays and exercises, and special readings in connection with the course, will be prescribed from time to time.

The following additional reading will be expected from candidates for First Class Distinction :-Aristotle's Ethics, Bks.. I, II, III, ch. 1-5, X ; Kant's Fundamental Principles of the Metaphysic of Morals ; Green's Prolegomena to Ethics, Bks. II and III, ch. i.

## Senior Philosophy.

Three lectures per week.
This course will consist of $(\alpha)$ a series of lectures on Greek Philosophy, with special reference to Plato and Aristotle; (b) a critical study of Hegel's Logic (Wallace's translation), in its relation to the philosophy of Kant.

[^6]
## VI.-LOGIC AND PSYCHOLOGY.

Professor.
The arrangements for the future conduct of this class will be announced at the beginning of next session.
VII.- MATHEMATICS.

Professor ................................. C. Macdonald, M. A.
Tutor $\ldots \ldots \ldots \ldots \ldots$................. Morrison, B. A.

## First Year Class.

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\text { Daily, } 11 \text { A. M.-12 M. }
$$

Subjects of study:
Algebra.-Involution, Evolution, Theory of Indices, Equations of the First and the Second Degree, Elements of Determinants, Proportion, Inequalities, Indeterminate Equations, Variation, Progressions ; Propositions in the Theory of Equations, with Horner's method of approximating the roots of an Equation of a Degree higher than the Second.

Geometry.-First and Second Books of Euclid Revised, Third and Fourth Books, Dnfinitions of the Fifth, and the Sixth Book, with Geometrical Exercises and Practical applications.

The class meets daily with the Professor. The Tutorial class meets once a week, for the purpose of revision of the Professor's Lectures, and illustration of them in working further examples. The Tutor will also be in the Library two or three times a week, from 3 to 5 o'clock, p. m., when he may be consulted by students with reference to their studies.

Books recommended-Colenso's or Todhunter's or Deighton's, (George Bell \& Sons) Elements of Euclid : Todhunter's Algebra or Hall \& Knight's Higher Algebra. (The latter book is reconmended to those who wish to pursue adsanced work. Todhunter's small School Algebra is scarcely sufficient for the course.)

## Second Year Class.

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\text { Daity, } 10-11 \text { A. M. }
$$

There are two Divisions in this class, the Lower and the Higher.
(1.) In the Lower Division, the subjects of study are-

Geometry.-Sixth Book of Euclid revised ; Drew's Conic Sections. the Parabola; Easy Geometrical Exercises, with practical applications ; 21 Propositions of the Fleventh Book of Euclid.

Trigonometry.-Analytical Plane, as far as, but exclusive of, DeMoirre's Theorem. The use of Logarithms, and of the chief Mathematical Tables. Solution of Plane Triangles; Mensuration of Heights and Distances; Elementary Problems in Navigation.

Algebra.-Permutations and Combinations; use of the Binomial Theorem ; Properties of Logarithms ; Compound Interest; Notation; Elements of the Doctrine of Chances.
(2.) In the Higher Division, the subjects are-

Geometry. - Parabola, Ellipse, and Modern Extensions of Euclid.
Trigonometry.-As in the Lower Division, with Extensions; DeMoivre's Theorem, with Higher Angular Analysis; Spherical Trigonometry, as far as the solution of Right-angled Triangles, with applications to easy Astronomical problems.

Algebra.-Investigations connected with the subjects studied in the Lower Division, with illustrations aud examples of a more difficult. kind. For First or Second Class at the Examinations, acquaintance with the subjects treated in this Division is necessary.

Announcement will be made at the beginning of the Session, of the number of meetings per week of the Lower Division.

The Higher Division meets, throughont the Session, two days a week.

The Tutor will be in the Library two or three times a week from 3 to 5 p . m., when he may be consulted by students with reference to their studies.

Books recommended-Algebras-Torhhunter's or Hall and Knight's (best). + Lock's Plane Trigonometry ; Cockshott and Walters's Geometrical Conics (Macmillan \& Co.) ; Chambers's Logarithmic, \&c., Tables. For Higher Division-Todhunter's Spherical Trigonometry; Casey's Sequel to First Six Books of Euclid, (Longmans, Green \& Co., London.)

## Advanced Class.

## There are two Divisions in this Class :

The First Division meets three times a week.* Subjects : Analytical Trigonometry, commencing with the applications of DeMoivre's Theorem; Analytical Geometry ; Spherical Trigonometry ; Theory of Equations ; Differential Calculus.

Bools recommended-Lock's Plane Trigonometry ; C. Smith's and Todhunter's. Conic Sections: Todhunter's Theory of Equations; Williamson's Differential Calculus; Williamson's Integral Calculus; Todhunter's Spherical Trigonometry. Any Standard Works ou the subjects treated may, however, be used.

The Second Division meets twice a week.* Subjects: Spherical Trigonometry; Theory of Equations; Differential Calculus; Integral Calculus, with Differential Equations; Application of these to Physics, Physical Astrouomy, \&e.

Bools recommended-The same as for the First Division. Also, Tait \& Steele's Dynamics of a Particle ; Todhunter's Analytical Statics; Boole's Diflerential Equations.

[^7]
## VIII.-PHYSICS.

## (George Munro Professorship.)

Professor $\qquad$ J. G. MacGregor, D. Sc.

## Junior Physics Class.

Tuesdays, Thursdays and Fridays, 11 A. M. -12 M.

## Subjects of the lectures:

The elements of Dynamics ; the properties of solid and fluid bodies; Heat; Electricity and Magnetism; Light and Radiant Heat; and Sound. These subjects will be treated in an elementary manner, the mathematical knowledge assumed being no greater than may be acquired in the First Year Class.

Books recommended-Students who aim at Distinction will be expected to read in connection with the lectures the following books: Blaikie's Elements of Dynamics (Thin, Edinburgh), Garnett's Elementary Treatise on Heat (Deighton, Bell \& Co.), Cumming's Electricity Treated Experimentally (Rivingtons), and Deschanel's Natural Philosophy, Ed, Everett, Part IV-Sound and Liyht (Blackie \& Son). Other students are recommended to read Stewart's Lessons in Elementary Physics (Macn illan \& Co.).

## Senior Physics Class.

> Mondays and Wednesdays, 10-11 A. M.

The subjects studied in this class will be the same as those of the Junior Class, with the omission of Dynamics; but they will be treated in a less elementary manner, a knowledge of the Mathematies of the Second Year Class being assumed. As the course is too extensive to be completed in one session, different departments of it, will be taken up in alternate sessions.

In 1890-91 the subjects of the ordinary class work will be:Gravitation, including such portions of obser vational Astronomy as are necessary for understanding the generalisation of Kepler's Laws; Elasticity, as treated in the Professor's Kinematics and Dynamics (Macmillan \& Co.) ; Sound, as treated in S. Taylor's Sound and Music (Macmillan \& Co.) ; Light, as treated in Tait's Light (A. \& C. Black.) -Candidates for First Class Distinction will be expected to acquire by private reading a knowledge of the elements of Heat and of Electricity and Magnetism, as contained in Maxwell's Theory of Heat (Longmans \& Co.) Chaps. VI-XI and XXII, and S. P. Thompson's Lessons in Electricity and Magnetism (Macmillan \& Co.).

In 1891-92 the subjects of the ordinary class work will be:-Heat, as treated in Maxwell's Theory of Heat (Longmans \& Co.), and Electricity and Magnetism, as treated in Cumming's Theory of Electricity (Macmillan \& Co. ). - Candidates for First Class Distinction will be expected to acquire by private reading a knowledge of the elements of Sound and Light as contained in S. Taylor's Sound and Music (Macmi!lan \& Co.), Chaps. I-VII, and Tait's"Light (A. \& C. Black), Chaps. VII-X and XIII-XV.

## Dynamics Class.

Tuesdays and Thursdays, 10-11 A. M.
The lectures will be on the following subjects:
Kinematies (a) of a point, $(b)$ of a rigid system of points.
Dynamics, including Kinetics and Statics, (a) of a particle, (b) of systems of particles, (c) of a rigid body.

Candidates for First Class Distinction will be expected to read privately the portions of the Text Book treating of the following subjects: Strains, Potential, and the Dynamics of flexible strings.

Text Book-MacGregor's Kinematics and Dynamics (Macmillan \& Co.)

## Advanced Mathematical Physics Class.

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\text { Mondays and Wednestays, } 11 \text { A. M. - } 12 \mathrm{M} \text {. }
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This class is intended especially for undergraduates taking the Special Course in Mathematies and Physics, but other students having sufficient knowledge of Mathematics and Physics will be admitted.

The subjects studied will include all departments of Physics. The mode of treatment will be such as to give the student an introduction to the application of the higher mathematics to the study of physical problems. Students will be assumed to have a sufficient knowledge of Analytical Geometry and of the Differential and Integral Calculus, and to be familiar with the text-book of the Dynamics class. As the course is too extensive to be completed in a single session, different portions will be taken up in alternate sessions.

In 1890-91 the subjects treated will be:-Dynamics, the portions bearing on the doctrine of Energy; Thermodynamics; Electrodynamics (including Electrostatics).

In 1891-92 the subjects treated will be:-Kinematics of a point, of a rigid system, and of a deformable system; Dynamics (including Statics) of a particle, of systems of particles (including strings), of extended bodies, of rigid bodies, of elastic solids, and of fluids; Wave Motion, with application to Sound and Light.

Books recommended.-Students will be referred by the Professor to various works during the course. Those most frequently referred to will be: Tait and Steele's Dynamics of a Particle (Macmillan \& Co.), Torhunter's Analytical Statics (Macmillan \& Co.), Aldis's Rigid Dynamics (Deighton, Bell \& Co.), Besant's Hydromechanics (Deighton, Bell \& Co.), Tait's Sketch of Thermodynamics (Douglas, Edinburgh) and Mascart \& Joubert's Electricity and Maynetism (De la Rue \& Co., London), vol. 1.

## Practical Physics Class.

This class is intended especially for undergraduates taking the Special Course in Experimental Physics and Chemistry; but other students having sufficient knowledge of Physics will be admitted.

The work of the class will consist of the determination of physical constants, such as density, specific heat, electromotive force, electrical resistance, \&c., and of simple physical laws.

Books recommended. - For ordinary use - Glazebrook and Shaw's Practical Physics (Longmans, Green \& Co.). For reference-Stewart \& Gee's Elementary Practical Physies (Macmillan \& Co.), Ayrtın's Practical Electricity (Cassell \& Co.), Gray's Absolute Measurements in Electricity and Magnetism (Macmillan, \& Co.), and Kohlrausch's Physical Measurements (J. \& A. Churchill).

## IX.-CHEMISTRY.

## (McLeod Professorship.)



## Inorganic Chemistry Class.

Tuesdays, Wednesdays and Fridays, 9-10 A. M.

## Subjects of lectures:

General Principles. Chemical Affinity. Laws of Combination, by weight. Equivalents. Laws of Combination, by volume. The Elements. Compoinds. Atomicity. Nomenclature; Notation; Formulæ, Equations. The Non-Metalic Elements considered in detail ; their modes of occurrence in nature; preparation in the free state ; their compounds; natural phenomena and artificial processes in which they take part; useful manufactures to which they are related.

The Metals considered in regard to their physical and chemical characters and modes of occurrence in nature; Classification of the Metals. Alloys. Amalgams ; Constitution of Salts; Bases, Acids, Radicals. Discussion of the more important Metallic Elements in detail ; their Salts and other compounds; Metallurgical processes ; Chemical Manufactures.

Text Book. - Greene's Edition of Wurtz's Elements of Modern Chemistry-the whole of the Inorganic part (Lippincott, Philadelphia.)

## Organic Chemistry Class.

Mondays and Wednesdays, $10-11 \mathrm{~A} . \mathrm{M}$.
Subjects of lectures:
Principles of Classification. Elementary Analysis. Methane and its Homologues, and their Substitution Compounds. The Monatomic Alcohols, and related compounds and Derivatives ; Aldehydes, Ethers, \&c. The Fatty Acids. Compound Ethers. Polyatomic Alcohols, Ethers and Acids. Cyanogen and its compounds.

Aromatic Compounds. Benzene. Aniline Compounds. Terpenes. Alkaloids.

Students are exercised in the Laboratory in the preparation of organic compounds, and in experiments to determine their elementary composition, chemical constitution, and properties.

Text Bock-Greene's Euition of Wurtz's Elements of Chemistry - the Organic part. Reference works in the College Library will be reconmended during the course.

## Chemical Laboratory.

The Chemical Laboratory is open daily (except Saturdays) from $9 \mathrm{a} . \mathrm{m}$. to $1 \mathrm{p} . \mathrm{m}$. Students taking their first Laboratory course are required to attend at an hour when the Professor is not engaged in lecturing.

Practical Chemistry.-Systematic Separation and Detection of the several Metallic Bases and of Acids. Preparation of Reagents.

The work is done entirely by the students. Where additional time can be given, students will also be exercised in the preparation of, and manipulation with, the more important elementary and compound gases.

Laboratory Buoks - One of the following ; Macadam's Practical Chemistry, Fressnius's Qualitative Analysi-, Goodwin's Text Book.

Quantitative Analysis.-Instruction is provided in Quantitative Analysis, for students taking the Special Course in Experimental Physics and Chemistry, and also for Students who, having taken Practical Chemistry in their Third Year, are desirous of taking it again in their Fourth Year. (Other persons, having a sufficient knowledge of Chemistry, will also be admitted. Instruction is offered not only in General Quantitative Analysis, but also in special work, such as the analysis of Metallic Ores, Coal, and other Mineral Substances, Fertilizers, Soils, Mineral Waters ; Sanitary Examinations of Water, Air and Food ; Detection and Quantitative Estimation of Poisons.

Laboratory students are allowed the use of the ordinary Laboratory. apparatus and furnishings, and of inexpensive reagents, but are required to provide themselves with evaporating basins, test tubes, platinum, gold and silver salts, and other expensive materials which they may require, and to replace apparatus which they may destroy. Those who wish to work in special departments, or to engage in original research, will have to furnish themselves with the necessary apparatus.

Text Book-Fresenius's Quantitative Analysis. Special works in the College Library, will be recommended when necessary. A small Reference Library of books needed in actual work is kept in the Balance Room.
X.-BOTANY.

Professor. ........................................
Tuesilays and Thursdays, 10-11 A. M.
The course in Botany embraces the subjects of Structural and Physiological Botany, special attention being given to Minute Structure and Development of Tissues, the phenomena of Growth, Keproduction, Life-History, and Plant Movements. Also Classification, as illustrated by the leading natural orders of North American plants. Experiments on living plants, in regard to transpiration, growth and movements, and the examination of tissues, cell developuent, \&c., will be conducted in the Laboratory Balance Room.
'text Boot-Goodale's Physiological Botany (vol. II. of Gray's Botanical Text Book.) Field Book for Summer Work-Gray's Manual of Botany of the Northern States ; Gray's How Plants Grow, with Lawson's Fern Flora of Canada, as Appendix, (Mackinlay).
§ II.-The Academic Year. -The academic year consists of one session. The session of 1890-91 will begin on Wednesday, 10th September, 1890, and end on Thursday, 23rd April, 1891.
§ III. - Admission of Students.- (1.) Persons of either sex may become students of the College by (a) furnishing satisfactory references or certificates of good moral character
(on first entering the College), (b) entering their names in the Register (annually), and (c) paying the annual Registration. fee ( $\$ x$ xiii).
(2.) Registered students may, on presentation of their Registration Tickets and on payment of the proper fees (§ xxiii), enter any of the ordinary classes of the College. The Tutorial classes are open to members of the ordinary classes in connection with which they are held ; the Advanced classes, to students who have sufficient knowledge of the subjects taught in them.
(3.) Students who are candidates for degrees are known as Undergraduates, others as General Students.
§ IV.-Degrees.- (1.) Three baccalaureate degrees are conferred in the Faculty of Arts, those, viz., of Bachelor of Arts (B. A.), Bachelor of Letters (B. L) and Bachelor of Science (B. Sc.).
(2) Persons who wish to obtain University Degrees must become Undergraduates. Persons of either sex may become Undergraduates by (a) passing either one of the Matriculation Examinations or a recognized equivalent, (§§ iv, 4-6 ; v, 3 ; and vi, 2-3), and (b) matriculating, i. e., entering their names on the Matricula or Register as Undergraduates.
(3.) Two Matriculation Examinations are held, of lower and higher grade respectively. The First Year Matriculation Examination admits to the First Year of the various courses. The Second Year Matriculation Examination admits to the Second Year of the various courses, and thus enables those who pass it to obtain their degrees at the end of three academic years.
(4.) 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 First Year Matriculation Examination and passed satisfactory examinations therein.
(5.) Persons who may have appeared as candidates for Junior Munro Exhibitions and Bursaries may be admitted as Undergraduates of the First Year, without further examination, provided their examinations are approved by the Faculty. If their examinations are approved in some subjects but not in others, they may be admitted as Undergraduates on passing in the latter at the Final Matriculation Examination.
(6.) Undergraduates of other Universities may, on producing satisfactory certificates, be admitted ad eundem statum in this University, if on examination 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 University, they may be required by the Faculty to take additional classes.
(7.) Undergraduates must pursue, at the College, specified courses of study, which vary with the degrees for which they are candidates, but in the case of all degrees extend over four years. They must also pass the prescribed examinations according to the regulations of $\S$ xi.

## § V.- First Year Matriculation Examination.-

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

1 and 2. Two of the following: Latin, Greek, French, German. (Candidates for B. A. must pass in Latin, and if they are to take Greek as one of the subjects of the First Year, must also pass in Greek).

Latin. - Grammar. Composition-Translation of easy sentences, as in Smith's Principia Latina, Part iv., Exs. 1-35. One Latin book. The following books are recommended:

For 1890. - Coesar-Gallic War, Books II and III; or Virgil-Eneid, Book II. Composition-As in Arnold's, by Bradley, Exer., 1-44.

For 1891.-Coesar-Gallic War, Books IV and V.; or Virgil-Eneia, Book II. Composition-As in 1890.

Greek.-Grammar. One Greek book. The following books are recommended:

For 1890.-Xenophon-Anabasis, Book IV. or V. or VI.
For 1891.- Xenophon-Anabasis, Book V. or VI. or VII.
French--Voltaire: Charles XII., Books I. and II.; or Scribe, Bertrand et Raton (Comédie)-Questions in Grammar limited to the Accidence, and based upon the passages selected.--Easy English sentences for translation into French.

German.-Adler's German Reacler (Appleton \& Co.), Zweiter Abschnitt, 1-4 and 14-17 (inclusive) ; or Schiller's Der Neffe als Onkel, Act I. Grammar : Declensions of the Articles, Nouns, and Adjectives.
N. B.-Instead of the books recommended above in Latin, Greek, French, and German, candidates may offer equivalents which are not included in the Course of Study. Such equivalents must have been previously approved by the President.
3. Arithmetic and Algebra. -- Arithmetic. Algebra: Simple Rules, and Simple Equations of one unknown quantity, not involving surds.
4. Geometry.-Euclid's Elements, Books I. and II.
5. English.-Lanyuage: Grammar, Analysis, Writing from Dictation, Punctuation, Synthesis, Paraphrasing.
6. History and Geography. -Outlines of English and Canadian History, and General Geography.
7.-Optienal Subject. - Inorganic Chemistry.-Nomenclature, Notation, Equivalent and Atomic Numbers. Feneral Principles of Inorganic Chemistry. The Non-Metallic. Elements, and their more important compounds. Candidates must he able to read chemical formulæ and equations, so as to explain their meaning in words, and to express in formulæ the composition of common salts, and, in form of equations, ordinary chemical reactions.


#### Abstract

This subject is not required; but a candidate taking it will be exempted from attendance on the lectutes of the Chemistry class until after the Christmas vacation.


The above examination may be conducted partly viva voce.
(2.) Candidates taking French or German, and those who wish to offer equivalents, are required to give notice to the President, of their intention to appear at this Examination, at least one week before the day on which it is held ; and in giving such notice, they must state which of subjects 1 and 2 they take and what equivalents they offer instead of books specified above.
(3) Candidates who hold Teachers' Licenses of Grade B, ssued by the Nova Scotian Education Office, shall be exempted from the folowing subjects of the above Examination:-Latin, French, Arithmetic and Algebra, Geometry, English, and History and Geography, provided these subjects were included in the examination by which they gained their Licenses. -Candidates who hold Licenses of Grade A shall be allowed to matriculate as undergraduates of the First Year without examination.
(4.) Candidates who fail in a portion of the above Examination may, nevertheless, by special permission of the Faculty, be allowed to matriculate conditionally; but they will be required to pass in such portion at a subsequent date.
(5.) This examination will be held at the College on September 16 th -18 th, I890. For the benefit of candidates unable to present themselves on these days an opportunity will be granted of appearing for examination on October 8 th-11th. But no student will be admitted as an undergraduate at a later date without the special permission of the Faculty.

## § VI.-Second Year Matriculation Examination.

-(1.) The following are the subjects of this examination:
1 and 2. Two of the following: Latin, Greek, French, German, Botany. (Candidates for B. A. must pass in Latin ; if they are 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.Candidates for B. L. must pass in two languages, of which one must be French or German. - Candidates for B. Sc. must pass in one modern language and in Botany).

Latin. -The ordinary* subjects of the First Year Class, as specified in § I (I), together with one additional book.

Greer.-The ordinary* subjects of the First Year Class, as specified in § I (I), together with one additional book.

French.-The subjects of the First French Class, as specified in § I (II).

German.-The subjects of the First German Class, as specified in § I (II).

Botany. - The subjects of the lectures of the Botany Class, as specified in § I (x).
N. B.-Instead of the books prescribed above in Latin, Greek, French, and German, caudidates nalay offer equivalents which are not included in the Course of Study. Such equivalents must have been previously approved by the President.
3. Mathematics. - The subjects of the First Year Class, as specified in § I (vir).
4. English. - In addition to the subjects of the First Year Matriculation Examination (in which special stress will be laid on Composition), candidates will be required to pass an examination on the literary subjects specified for the ordinary* work of the First Year Class (§ I, III)-or the equivalents thereof.
5. History and Geography. - The subjects of the First Year Matriculation Examination.
6. Inorganic Chemistry.-The subjects of the First Year Class (§ I, rx.)-Candidates may omit this su 1 ject; but in that event they must either pass the examination therein on entering the Third Year, or take it instead of one of the elective subjects in the Third Year.

The above examination may be conducted partly viva voce.
(2.) Candidates who have previously passed in any one or more of the above subjects, or in any portion thereof, either at the Matriculation Examination or at the Examinations of the First Year, shall be exempt from further examination therein.
(3.) Candidates who hold Teachers' Licenses of Grade B, issued by the Nova Scotian Education Office, shall be exempted from the following subjects of the above Examination:-The subjects of the First Year Matriculation Examination in English, and History and Geography.-Candidates who hold Licenses of Grade A, shall be exempted from Latin, Greek, Mathematics, the subjects of the First Year Matriculation Examination in English, History and Geography, and Inorganic Chemistry, provided these subjects were included in the examination by which they gained their Licenses.
(4) Candidates must give at least one fortnight's notice to the President, of their intention to appear at this examination ;

[^8]and in giving such notice they must state in what Latin, Greek, French, German, and English books they intend to offer themselves for examination, whether or not they wish to be examined in Chemistry, and in what subjects they claim exemption from examination.
(5.) This examination will be held at the College on September 16th-18th, 1890 . For the convenience of candidates unable to appear on these days, an opportunity will be granted of appearing for examination on October 8th-11th. But no student will be allowed to enter as an undergraduate at a later date, without the special permission of the Faculty.

## § VII.- Ordinary Courses of Study for Degrees

of B. A. and B. L. - The following is a list of the classes which undergraduates are required to attend in the four years of the ordinary courses for B. A. and B. L. The details of the subjects studied in these classes, will be found under Courses of Instruction (§§ I, xxiv and xxxvi).

First Year.

1. For B. A.-Latin. For B. L.-German.
2. For B. A.-Greek, or French, or German. For B. L. -French.
3. Mathematics.
4. Inorganic Chemistry.
5. English.

Uudergraduates taking French or German, enter the classes for which the Professor considers them fitted.

## Second Year.

1. For B. A.-Latin. For B. L.-German.
2. For B. A.-The language chosen as subject 2 in the 1 st year. For B. L.-French.
3. For B. A.-Mathematics. For B. L.-Mathematics or Junior Physics.
4. English.
5. Junior Philosophy.

## Third Year.

1. For $B$.-LLatin or Greek. The language selected must have been taken during the first two years. For B. L.German or French.
2. For B. A. - Junior Physics. For B. L. - Junior Physics or any one of subjects 4-5. (Junior Physics must be taken either in the Second or Third Year).
3. History.

4-5. Any two of the following*:
a. Greek.
b. Hebrew.
c. French.
d. German.
e. English, $\dagger$
f. Constitutional History (Law Faculty.)
g. Political Economy.
h. Ethics.
i. Senior Philosophy.
j. Dynamics.
k. Organic Chemistry, or Medical Chemistry.
l. Practical Chemistry. m. Botany.

Undergraduates are required, on or before September 18th, to submit to the President for approval, the names of the two subjects, $4-5$, which they may wish to select.

Undergraduates selecting French or German for the first time, enter the classes for which the Professor considers them fitted. Those selecting Greek for the first time, enter the First Year Class.

A certificate of attendance on a class of New Testament Greek in any recognised College, will exempt from subject 1 or from one of the two subjects $4-5$, an undergraduate who has taken freek in the first two years.

The University provides no instruction in Hebrew, but a certificate of attendance on a Hebrew Class in any recognised College will exempt an undergraduate from one of the two subjects, 4-5.

## Fourth Year.

Any five of the following*:-

| $a$. | Latin. | $k$. | Constitutional Law |
| :---: | :---: | :---: | :---: |
| $b$. | Greek. |  | (Law Faculty.) |
| $c$. | Hebrew. | $l$. | Contracts |
| $d$. | French. |  | (Law Faculty.) |
| $e$. | German. | $m$. | Senior Physics. |
| $f$. | English. $\dagger$ | $n$. | Practical Physics. |
|  | History. | o. | Dynamics |
| $h$. | Political Economy. $\ddagger$ | $p$. | Organic Chemistry, or |
| $i$. | Ethics. |  | Medical Chemistry. |
| $j$. | Senior Philosophy. | $q$. | Practical Chemistry. |

Undergraduates are required, on or before September 18th, to submit to the President for approval, the names of the subjects which they may wish to select.

[^9]Undergraduates taking the First Year Greek Class in the Third Year must take the Second Year Class in the Fourth. Those taking the First French or First German class in the Third Year must take the Second Class of the same subject in the Fourth. Neither the First Year Greek Class nor the First German or French Class can be taken in the Fourth Year withont special permission.
A certificate of attendance on a New Testament Greek class in any recognised College, will exempt from one subject an undergraduate who has taken Greek during the first three years.

A certificate of attendance ou a class in Hebrew in any recognised College will exempt from one subject. If the Hebrew class be one of 5 hours a week, attendance on it will exempt from two subjects.

No class in which the subjects studied are the same from year to year, can be taken twice as part of tho course.
§ VIII.-Ordinary Course of Study for Degree of B. Sc.-The following is a list of the classes which undergraduates must attend during the four years of the B . Sc. Course. The details of the subjects studied in these classes will be found under Courses of Instruction ( $\$ \S$ I. and xxxvi .)

## First Year.

I. French or German.
2. Botany.
3. Mathematics.
4. Inorganic Chemistry.
5. English.

Practical work in Botany will be prescribed for the summer follow ing the First Year.

## Second Year.

1. The language chosen as subject 1 in the First Year.
2. Practical Chemistry.
3. Mathematics.
4. English.
5. Junior Philosophy.

## Third Year.

1. The modern language not chosen as subject 1 in the first two years.
2. Physics.
3. Dynamics.
[^10]
## Fourth Year.

1. The language taken as subject 1 in the Third Year.
2. Physics.

3-4. Either Advanced Mathematics or Practical Chemistry and Practical Physics.
5. One of the following :-
a. French. $\quad f$. Practical Chemistry.
b. German. g. Practical Physics.
c. History.
h. Ethics.
d. Political Economy.
e. Organic Chemistry or Medical Chemistry.

Undergraduates selecting French or German in the First or Third Years enter the classes for which the Professor considers them qualified.

No class in which the subjects studied are the same from year to year, can be taken twice during the Course.
§ IX. - Special Courses for Degrees.- (1.) An undergraduate shall be allowed, during his Third and Fourth Years, 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 received the special permission of the Faculty.
(2.) Special Courses are provided in the following departments,* viz., (1) Classics, (2) Latin and English, (3) Greek and English, (4) English and English History, (5) Philosophy, (6) Mathematies and Mathematical Physies, (7) Experimental Physics and Chemistry. Undergraduates in Arts may take special courses in any one of the above departments ; undergraduates in Letters in any one of departments $4,5,6$, and 7 ; undergraduates in Science in either of the departments 6 and 7 .
(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 (§I), 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

[^11]may select as his ordinary classes in any year, any of the classes of that year, subject to the approval of the Faculty.
(4.) The examinations in the subjects of the Special Course shall be held at the end of the Fourth Year.
(5.) Undergraduates taking the Special Course in Classics 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:

Plautus: Miles Gloriosus.
Terence: Adelphi.
Virgil : Georgics, Books I., iv.
Horace: Epistles, Books I., II. ; Ars Poetica.
Juvenal : Satires, viI., viII., xiv.
Cicero : De Oratore, Books I., II.
Livy: Books xxi., xxir.
Tacitus: Germania; Annals, Book ir.
II. Candidates will be required to shew a general knowledge of one prose and one verse subject, to be chosen by them from the following list:

Plautus: Trinummus, Aulularia.
Terence: Andria, Heautontimorumenos.
Juvenal: The Satires not read in class, (Hardy's edit.) In 1892, Persius' Satires in addition.
Cicero : Select Letters, (Muirhead's edit., Rivingtons, London).
Livy: Books in., III., IV.
Tacitus: Histories, Books I., IT.
III. Composition.-Prose.
IV. Literature.-Crutwell's History of Latin Literature, selected chapters.
V. Phlology. - Peile's Introduction to Greek and Latin Etymology ; Comparative Philology by Papillon.

## Greek.

I. Candidates will be requlred to have a critical knowledge of the following works:

Aeschylus: Eumenides.
Sophocles: Dedipus Rex.
Aristophanes: The Knights.
Homer: Odyssey, Books v., vi,, viI., viII.
Thucydides: Book II.
Plato: Phaedo.
Demosthenes: De Corona.
Aristotle : Poetics.
II. Candidates will be required to shew a general knowledge of one prose and one verse subject, to be chosen by them from the following list :

Atschylus: Agamemnon, Choephorae.
Sophocles: Oedipus Coloneus, Antigone.
Euripides: Hecuba, Bacchae, Hippolytus. In 1892, Phoenissae instead of Hecuba.
Herodotus: Any two books, excluding the Second.
Thucydides : First and Seventh Books.
Aeschines and (Contra Ctesiphontem.
Demosthenes; De Falsa Legatione.
III. Composition.-Prose.
IV. Philology.-Peile's Introduction to Greek and Latin Etymology ; Comparative Philology by Papillon.
V. Literature-Mahaffy's History of Greek Literature, the portions bearing on the authors and subjects read in the undergraduate course; Donaldson's Theatre of the Greeks, selected portions. In 1892, Haigh's Theatre of the Greeks instead.
(6.) Undergraduates taking the Special Course in Latin and English 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, the Third and Fourth Years English Class being regarded, however, in the case of undergraduates taking this Special Course, not as an ordinary subject but as a part of the Special Course. They shall be examined in the following subjects, viz:

> LATIN.

The Latin subjects prescribed for the Special Course in Classics.
ENGLISH.
The historical development of the language and literature to the year 1300. First Half-Course: Sweet's Anglo-Saxon Reader (exclusive of poetical selections), Sievers, O. E. Grammar trans. by Cook, Part II. Second Half Course: Morris, Specimens of Early English, I., and Lounsbury, History of the English Language.

History of the Elizabethan and Early Stuart Literature. First Half-Course: Marlowe, Edward II. Webster, The Duchess of Malfi. Greene, Friar Bacon and Friar Buncay. Sidney, Apologie for Poetrie. Hooker, Ecclesiastical Polity, Book I. Decond Half-Course: Bacon, Advancement of Learning. Select Essays. Shakesprare, Henry VI., Pts II. and III., Romeo and Juliet, Lear, Henry VIII, Two Noble Kinsmen.

Books recommended: History of Literature: Saintsbury. Clarendon Press "Mermaid" and Arber Editions of Elizabethan works.
(7.) Undergraduates taking the Special Course in Greek and English 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, the Third and Fourth years English Class being regarded, however, in the case of undergraduates taking this course, not as an ordinary subject, but as a part of the Special Course. 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 the Special Course in English and English History 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, the Third and Fourth Years English Class being regarded, however, in the case of undergraduates taking this course, not as an ordinary subject, but as a part of the Special Course. They shall be examined in the following subjects, viz.:-

## ENGLISH.

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

ENGLISH HISTORY.
A minute investigation of English History from A. D. 1603-1689.

[^12](9.) Undergraduates taking the Special Course in Philosophy may in each of the Third and Fourth Years of their Course omit any one of the subjects of those years except Senior Philosophy and Ethics, which must be taken in the Third Year. They shall be examined in the following subjects :-

Plato's Theaetetus and Republic, (omitting Books viII. and IX.)
Aristotle's Nicomachean Ethics, (omitting Books vi. and vir.)
Locke's Essay on Human Understanding : Books II. and Iv.
Fraser's Selections from Berkeley.
Hume's Treatise on Human Nature, vol. I. (with Green's Introduction).

Kant's Critique of Pure Reason and Critique of Practical Reason.
Reid's Essays, vi.
Bradley's Principles of Logic.
Ladd's Elements of Physiological Psychology.
Green's Prolegomena to Ethics.
Spencer's Data of Ethes.
Sidgwick's Methods of Ethics.
A general acquaintance with the History of Philosophy will be expected.
(10.) Undergraduates in Arts taking the Special Course in Mathematics and Mathematical Physies may omit in the Third Year any two, and in the Fourth Year any three, of the
subjects of those years, except Physics and Dynamics. Undergraduates in Science may, in the Fourth Year, omit any one subject, except Physics. The Dynamics class must be taken in the Third Year. They shall be examined in the following subjects, viz: :-

MATHEMATICS.
Trigonometry.-Angular Analysis: Solution of Spherical Triangles; Napier's Analogies ; with application to Astronomical Problems.

Analytical Geometry. - The Conic Sections, and the Equation of the Second Degree between two variables; as far as set forth in any standard treatise on the subject.

Calculus. - Differential and Integral, as set forth in any standard treatises on these subjects. Differential Equations (selected course), with practical applications to Physical Problems.

MATHEMATICAL PHYSICS.
Either : Kinematics $(a)$ of a point $(b)$ of a rigid system, and $(c)$ of a deformable system; Dynamics (including both Statics and Kinetics) (a) of a particle, (b) of systems of particles (including flexible strings), (c) of a rigid body, $(d)$ of elastic solids, and (e) of fluids; and Ware Motion, with application to Sound and Light.

Or: Dynamics, the portions bearing on the doctrine of Energy ; Thermodynamics; and Electrodynamics (including Electrostatics).

These subjects are to be treated by the application of analytical Geometry and the Differential and Integral Calculus.
(11.) Undergraduates in Arts taking the Special Course in Experimental Physics and Chemistry may, in the Third Year, omit any one, and in the Fourth Year, any two, of the subjects of those years, except Physics, Practical Physics, Dynamics, and Orgauic and Practical Chemistry. Undergraduates in Science may, in the Fourth Year, omit any one subject, except Physics. The Dynamics Class must be taken in the Third Year. They shall be examined in the following subjects :-

## EXPERIMENTAL PHYSICN.

Candidates shall be required to show a general knowledge of Abstract Dynamics, the Properties of Solids and Fluids, Heat, Electricity and Magnetism, Light and Radiant Heat, and Sound, so far as these subjects can be treated by elementary mathematical methods. The extent of knowledge required is such as may be obtained by a study of thefollowing books :-MacGregor's Kinematics and Dynamics, (Macmillan \& Co.); Tait's Properties of Matter, (A. \& C. Black); S. Taylor's Sound and Music, (Macmillan \& Co.); Aldis's Geometrical Optics, ( Deighton, Bell \& Co.); Lloyd's Wave Theory of Light, (Long mans) ; Maxwell's Theory of Heat, (Longmans); Stewart's Treatise on Heat, (Clarendon Press); Cumning's Theory of Electricity, (Macmillan \& Co.), and S. P. Thompson's Elementary Lessons in Electricity and Magnetism, (Macmillan \& Co.)

They shall be required to show an intimate knowledge of the following original 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, 298, 542, 632.-Faraday's

Experimental Researches in Electricity (Quaritch), vol. 1, Series III., IV., VI., VII., VIII.

They shall be required also to show ability to determine practically important physical constants, such as Density, Specific Heat, Electrical Resistance, \&c., and simple physical laws.

## CHEMISTRY.

Organic Chemistry. - Principles of Elementary Analysis, Practical Estimation of Carbon, Hydrogen, Oxygen and Nitrogen. Principles of Classification. Hydrocarbons, Chlorides, \&c. Monatomic and Polyatomic Alcohols, Aldehydes. Volatile Fatty Acids. Compound Ethers, Ethers of Glycerine, Saponification, Organic Acids. Carbodydrates. Fermentation. Transformations of the Alcohols, and Laboratory Determinations. Aromatic Group. Compound Ammonias. Alkaloids.

Books recommended: Wurtz's Chemistry, Organic part. Roscoe \& Schorlemmer's Chemistry.

For reference: Watt's Dictionary of Chemistry, and other reference works in the Balance Room Library.

- Practical Chemistry.-Candidates will be required to show familiarity with modes of Manipulation, Preparation of Gases, Preparation of Laboratory Re-agents, Systematic Method of Testing for bases and for acids ; also proficiency in one of the following:-(1) Quantitative Estimation of Metallic Ores, (2) do. of Inorganic Poisons, (3) Soil Analysis, (4) Sanitary Analysis. Special work will be prescribed accordiug to the department selected by the candidate, and suitable books suggested.

Books recommended for general worlo: Macadam's Practical Chemistry. Fresenius's Qualitatire Analysis, Thorpe or Appleton. Woehler's Mineral Analysis.
§ X.-Attendance.-(1.) Undergraduates are required to attend with regularity the classes of their respective years. Professors shall mark the presence or absence of students immediately before commencing the work of the class, and shall note as absent those who enter thereafter, unless satisfactory reasons be assigned. - The amount of absence as recorded in the class registers, which shall disqualify for the keeping of a Session, shall be determined by the Faculty.
(2.) With the exception of persons who have qualified for matriculation at the Final Matriculation Examination ( $\$ \mathrm{~S}_{\mathrm{S}}^{\mathrm{s}} \mathrm{v} .(5)$, and $\left.\mathrm{vi} .(5).\right)$, no undergraduate shall be allowed to register as such more than ten days after the opening of classes without the special permission of the Faculty.
(3.) Attendance on Tutorial Classes is compulsory in the case of undergraduates attending the ordinary classes in connection with which they are held ; but the Professor may exempt them from such attendance.
(4.) Undergraduates of any year, who may have previously attended one or more of the classes of that year, and passed in the subjects of them, shall be exempted by the Faculty from attending those classes a second time.
§ XI. - Examinations. - (1.) Undergraduates are required to appear as candidates at the various examinations held in connection with the classes which they may attend as parts of their course, and to prepare such theses, essays, reports, \&c., as are prescribed by the Professor. In all classes two examinations are held, one just before the Christmas vacation and the other after the close of lectures in the Spring. In some classes other examinations are held at dates appointed by the Professor. In the determination of the Pass List and in the award of Class Distinctions, which may be of two grades, 1 st and 2nd class, the results of these various examinations and the degree of excellence shewn in theses, essays, reports, \&c., shall be taken into consideration.

General Students are admitted to the above Examinations as well as undergraduates, and their position in the Pass and Distinction Lists are determined in the same way.

Certificates are issued to members of each class stating with what degree of regularity they have attended and what standing they have attained.
(2.) Undergraduates who are exempted by § x. (4), from attendance on one or more classes, shall be exempted also from passing the Examinations in the subjects of them.
(3.) Undergraduates of the Third and Fourth Years who are exempted from attendance on one or more classes on presentation of certificates from recognised Colleges, shall be exempted from examination in the subjects of those classes on presentation of certificates of having passed examinations therein, in the said Colleges.
(4.) An undergraduate shall not be allowed as such, except by special permission of the Faculty, to enter the classes of any year, unless he has passed in all the subjects of the previous year.
(5.) If an undergraduate fail to pass in one or two subjects in any year, he shall be allowed a Supplementary Examination in such subject or subjects at the beginning of any subsequent Session, on the day appointed for that purpose in the University Almanac, (September 15 th, 1890.) For fee see § xxiri.
(6.) If an undergraduate fail to pass in more than two of the subjects of any year, he shall not, except by special permission of the Faculty, be allowed a Supplementary Examination.
(7.) If an undergraduate fail to pass in more than two subjects of the First Year, he shall be allowed to appear as a candidate at the Second Year Matriculation Examination of any subsequent Session.
(8.) A second Supplementary Examination in the same Session, shall not be granted, except by special permission of the Faculty.
(9.) If an undergraduate absent himself from either a Christmas or a Spring Examination, except for such cause as may be considered sufficient by the Faculty, he shall lose his Session.
(10.) If an undergraduate absent himself from either a Christmas or a Spring Examination, for reasons considered sufficient by the Faculty, he shall be granted a Special Examination on the day appointed in the Almanac for the Supplementary Examinations. For fee see § xxiri.
(11.) If an undergraduate absent himelf from a Supplementary Examination for reasons deemed sufficient by the Faculty, he shall be allowed to appear as a candidate at a Special Examination, on a day to be appointed for that purpose by the Faculty. For fee see $\S$ xxiri.
(12.) Undergraduates 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 bêfore the date of such examination.
(13.) Students are forbidden to take 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 may be summarily expelled from the Examination room, and he shall be subject to such other penalty as the Faculty may see fit to impose.

## § XII.-Degrees with General Distinction.-

 Degrees with General Distinction will be conferred on undergraduates for special excellence shewn at the Examinations of the Third and Fourth Years of any of the ordinary courses for degrees, the Mathematics of the Second Year being for the purposes of this rule regarded as a Third Year Class.In awarding such Distinction the Faculty, while requiring that candidates shall attain a good standing in all their classes, will lay special stress on the attainment of a high standing in a few related subjects.

The Distinction awarded may be of the First or Second Rank.
§ XIII. - Degrees with Honours. - Degrees with Honours in any of the departments of study in which Special Courses are provided, will be conferred on undergraduates for special excellence shewn at the Examinations in the subjects of such courses.

The Honours awarded may be of the First or Second Rank.
A candidate for Honours may defer his examinations 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.
§ XIV. - Short Courses of Study for General Students.-(1.) For the benefit of students who may wish to spend but a short period of time at the University, the Time Table has been so ârranged that the following combinations of classes may be made. The details of the subjects studied in these classes will be found under Courses of Instruction, (§ § r. and xxiv.)
(2.) To students who attend the classes of the following courses with regularity and pass the Examinations ( $\$$ xI ) in the subjects thereof, certificates will be issued stating the nature of the course pursued and the degree of success attained.
(3.) Two Years Course of Liberal Studies.-First Year. -Two of the three,-Latin, French, and German ; English; Mathematics or History and Political Economy ; Inorganic Chemistry or Botany. Second Year.-Two of the threeLatin, French, lierman ; English Literature ; Political Economy or Junior Philosophy ; Physics or Inorganic Chemisty. (The alternative subjects so far as the Time table may permit.)
(4.) Two Years Course of Literary and Scientific Studies. - First Year.-French or German, English, Mathematics, Botany, Inorganic Chemistry. Second Year.-French or (ierman, English Literature, Physics, Organic Chemistry, Practical Chemistry. This course is specially designed for students who intend to enter upon the study of chemistry or to engage in chemical industries.
(5.) Three Years Course preparatory to the Study of Technolngy.--First Year.-French, German, English, Mathematics, Inorganic Chemistry. Second Year.-German, English Literature, Mathematics, Physics, Practical Chemistry. Third Year.-German, Advanced Mathematics, Physics, Dynamics, Practical Chemistry.
(6.) Two Years Journalistic Course.-First Year.French, English Literature (1st and 2nd Years classes), History (3rd and 4th Years classes), Junior Philosophy or Political Economy. Second Year.-French, Advanced English Literature, Ethics, Politieal Economy, Constitutional History, Constitutional Law.
(7.) Two Years Commercial Course.-First Year.French, German, English, Mathematics, Chemistry. Second Year.-French, German, English Literature, Political Economy, Physics, Law of Contracts.

## § XV.-Medals and Prizes.

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

The Governor-General's Gold Medal, which is offered by His Excellency the Governor-General of the Dominion of Canada, will be awarded to the undergraduate standing highest among those taking Honours in the Department of Classics, the winners of other medals being excluded. In the event of its not being awarded in this department, it may be awarded in the department of Latin and English, or in that of Greek and English, or in some other department.

The Governor-General's Silver Medal; which is offered by His Excellency the Governor-General of the Dominion of Canada, will be awarded to the undergraduate standing highest among those taking Honours in Mental and Moral Philosophy, the winners of other medals being excluded. In the event of its not being awarded in this department, it may be awarded in some other department.

The Sir William Young Gold Medal, founded by bequest of the late Hon. Sir William Young, will be awarded to the undergraduate standing .highest among those taking Honours in the department of Mathematics and Mathematical Physics, the winners of other medals being excluded.

North British Society Bursary.-A Bursary of the annual value of $\$ 60$, has been founded in connection with Dalhousie College by the North British Society of Halifax, to be competed for at the Examinations of the Second Year's Course in Arts, and held by the successful competitor 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, to be members of the North British Society. The next competition will take place in April, 1892.

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 in the Mathematics of the year, the winner of the North British Society Bursary being excluded.

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 that member of the graduating class, who, during the Third and Fourth Years of his Course, has distinguished himself most among those taking the ordinary B. A. Course.

The Early English Text Society's Prize, which is offered annually by that Society, and consists of several volumes of the Society's publications, will be awarded to the Student standing highest in the subject of Early English Language and Literature at the examinations of the Special Course in English and English History.

The New Shakspere Society's Prize, which is offered annually by that Society, and consists of several volumes of the Society's publications, will be awarded to the student who stands highest in the subject of the plays of Shakespeare at the Examinations of the Second Year in English Literature.
§ XVI. - Munro Exhibitions and Bursaries.(1) The following Exhibitions and Bursaries are offered by Geo. Munro. Esq., of New York, to be competed for at the beginning of the Sessions of 1890-91 and 1891-92, viz. :-

Five Junior Exhibitions of $\$ 150$ a year, tenable for two years.
Ten Junior Bursaries of $\$ 100$ a year, tenable for two years.
Five Senior Exhibitions of $\$ 150$ a year, tenable for two years.
Ten Senior Bursaries of $\$ 200$ a year, tenable for two years.
(2.) The Junior Exhibitions aud Bursaries are offered for competition to candidates for matriculation in Arts or Science, provided they have previously neither matriculated* at any University eonferring degrees in these departments, nor appeared as candidates for these Exhibitions and Bursaries more than once.
(3.) The Senior Exhibitions and Bursaries are offered for competition to undergraduates entering the Third Year of the B. A. and B. Sc. Courses. Candidates must have completed the Second Year of their Course, either at this or at some other University ; but they must not have entered upon the Third Year. They must also have matriculated* within three years

[^13]or within two years of the date of the competition, according as they may have entered upon their course as undergraduates of the First or of the Second Year respectively.
(4) The Junior Exhibitions and Bursaries shall be held during two years, provided the holder ( $a$ ) attend in consecutive years, to the satisfaction of the Faculty, the classes proper to the first and second years of the B. A. or B. Sc. Course, Greek being taken as one of the subjects of each of those years if the holder select the B. A. Course ; $(b) \dagger$ pass in all the subjects of the First Year, and attain a Second Class standing in at least one of them, and (c) pass in the subjects of the Second Year.
(5.) If a candidate, to whom a Junior Exhibition or Bursary has been awarded, is able to pass the Second Year Matriculation Examination, he may enter the Second Year ; in which case, however, he shall hold his Exhibition or Bursary during that year only.
(6) The Senior Exhibitions and Bursaries shall be held during the third and fourth years of the B. A. or B. Sc. Course, provided the holder (a) attend in consecutive years, to the satisfaction of the Faculty, the clases proper to the third and fourth years of his Course, (b) pass in all the subjects of the third year, and either obtain a Second Class standing in one of them or obtain the favourable report of a Professor on work done in one of the Special Courses, and (c) pass in the subjects of the Fourth Year.
(7.) The annual amounts of the above Exhibitions and Bursaries will be paid in three instalments, the first on the first Monday after the Autumn Convocation, the second on the first Monday after the Christmas vacation, and the third on the day of the Spring Convocation, the payment of each instalment being dependent upon the fulfilment of the conditions of tenure at the date at which it becomes due.
(8.) Candidates are required to make application for these Exhibitions and Bursaries by letter addressed to the President, and sent so as to reach him on or before September 1st, 1890. In making such application they must send (a) a statement signed by themselves to the effeet that they are not precluded by any of the conditions of § xvi (2) or (3), from competing for these Bursaries, and (b), if they have not already been students at this College, a certificate of good moral character signed by a clergyman or other person occupying a public official position.
$\dagger$ For the purposes of condition (b), Geometry and Algebra shall be reckoned as separate subjects.
(9.) A certain standard of answering at the Examinations, fixed by the Faculty, will be required for obtaining any of the above Exhibitions and Bursaries. A higher standard will be required for Exhibitions than for Bursaries.
(10.) The Faculty shall in all cases decide as to the fulfilment of the above rules and conditions.
(11) The Examinations for the Exhibitions and Bursaries will be held at the College on September 9th-12th, 1890.
(12) The subjects of examination for the Junior Exhibitions and Bursaries of 1890-91, shall be as follows :-
I. Latin.-† Ceesar, Gallic War, Books II and III, and Virgil, Æneid, Book II.-Grammar: Accidence, Prosody, Scansion of Hexameter Verse. *Text Book: Smith's Latin Grammar. - Prose Composi. tion: As in Arnold's Latin Prose Composition by Bradley, Exs. 1-44.
2. Greek. $\dagger$ - Xenophon, Anabasis, Books IV., V., and VI. Grammar: Accidence (omitting accentuation), chief rules of Syntax. *Text Buok: Smith's Greek Grammar. - Prose Composition: As in Fletcher and Nicholson, (A. Bailie, Kingston, Ont.) Exs. 1-28.
3. Mathematics. - Arithmetic: the ordinary rules of Arithmetic, Vulgar and Decimal Fractions, Proportion and Interest. - Algebra: as far as Simple Equations and Surds, with theory of Indices. Geometry: First, Second and Third Books of Euclid or the subjects thereof.
4. English-Language: Grammar, Analysis, Writing from Dictation, Punctuation, Synthesis, Paraphrasing.-History and Geography: Outlines of English and Canadian History, and General Geography.

The relative values of these subjects shall be as follows : Classics, 250 ; Mathematics, 200 ; English, 200.
(13.) The subjects of Examination for the Senior Exhibitions and Bursaries of 1890-91 shall be any two of the following groups :-
A.-Classics.

Latin : Horace, Epodes; Pliny, Selected Letters (Prichard and Bernard's edition, Clarendon Press, London).-Composition: An easy piece of English to be turned into Latin Prose. (For models, see Champeney's and Rundall's Easy Pieces for Latin Prose, 2nd series, Rivingtons, London.)

Greek.-Herodotus, Book II.-Composition: Translation of simple passages. (For models, see Sidgwick's First Greek Writer.)

[^14]In 1891-92, the subjects will be as follows:-
Latin : Horace, Odes, Book iv. Cicero, Selected Letters, (Prichard and Bernard's, sold by Macmillan, N. Y.) An "unseen" passage will also be set for translation. Composition as above.

Greek : Herodotus, Book vi. (Shuckburgh's, sold by Macmillan, N.Y.) An "unseen " passage also will be set for translation. Composition: Translation of simple passages. (For models, see Sidgwick's Introduction to Greek Prose Composition.)
B.-MATHEMATICS.

Algebra; As set forth in Colenso's, or Todhunter's or Wood's Algebra, exclusive of Continued Fractions and Diophantine Analysis.

Trigonometry: Analytical Plane; as far as, and including, DeMoivre's Theorem, with its application to the measurement of Circular Arcs, and the solution of the equation $x_{n}= \pm 1$.-Spherical; as far as, and including, Napier's Rules for the solution of Right-angled Triangles.

Geometry : The First, Second, Third, Fourth and Sixth Books of Euclid, with the definitions of the Fifth; the first 21 propositions of the Eleventh Buok. Conic Sections:-The Parabola and the Ellipse, as set forth in Drew's Conic Sections. (The equivalents of these will be accepted, if the candidate has used other Text Books; which, however, he must, at the examination, specify.)

The examinations will not be confined to the text of the books mentioned, or of any others, but will include Exercises and Problems on the principles laid down in common by all standard treatises on the above subjects.
C. --mNGLISH.

Lounsbury's History of the English Language (published by Henry Holt \& Co., N. Y.), to end of Parti. ; Spenser's Faerie Queen, Book I., (Clarendon Press Edition); Shakespeare's King John, As You Like It, (Rolfe's edition, Harper Bros.); Nichol's Byron (Eng. Men of Letters Series); Byron's Childe Harold (Clarendon Press).

In 1891-92, the following will be the subjects :-
Lounsbury: History of the English Language, Pt. ı. ; Spenser : Faerie Queen, Bk. II. ; Shakespeare: Merchant of Venice, Henry V.; Scott: Marrion, Scott, (Eng. Men of Letters Series.)

Candidates shall be required to present themselves for examination in two of the above groups-A, B, C. They may select any two of these groups; but will not be allowed to present themselves for examination in all three.

The relative values of the three groups will be the same.
Candidates must give notice to the President, of the groups in which they intend to present themselves for Examination.
§ XVII.-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 17th.)

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 satisfied this condition ; 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.
§ XVIII.-Church Attendance.-All students under twenty-one years of age not residing with parents or guardians, are required to report to the President on or before the day appointed in the University Almanac, (October 17th,) 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 churches as places of worship.
§ XIX.-Discipline.-Any case of improper conduct on the part of a student, if brought to the notice of the Faculty, is to be investigated by the Faculty and reported to the Senate.

The Senate has authority to impose fines for damage done to property, to inflict at discretion the penalties of admonition, suspension for a term, and expulsion, for neglect of duty, or for disorderly or improper conduct, and to use all other means deemed necessary for maintaining discipline.

The Professors have full power to maintain order in their respective classses, and may if necessary expel from the room during the class hour, any student persisting in disorderly conduct.
§ XX.-Degree of Master of Arts.-A Bachelor of Arts, of at least three years standing, maintaining meanwhile a good reputation, shall be entitled to the Degree of Master of Arts, on producing a satisfactory thesis on some literary, philosophical or scientific subject. The subject must have been previously approved by the Faculty. The thesis must be handed in on or before 1st March.

A Bachelor of Arts of at least one year's standing shall be entitled to the Degree of Master of Arts, on passing an examination in a Course of Study to be approved by the Faculty, and of about the extent represented by the academic work of a single year. Candidates must give at least a month's notice of their intention to appear at such an Examination.

For fee see §xxiii.
§XXI.-Admissionad Eundem Gradum.-Graduates of Universities approved by the Senate, who have received their degrees in course, shall be admitted ad eundem gradum in this University, on producing satisfactory proof of character and academic standing. For fee see § xxiii.
§ XXII.-Academic Costume.-(1.) Bachelors and Masters of Arts and Bachelors of science or Letters 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 hood 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. Sc.-Black stuff, with a lining of white silk, bordered with crimson silk.
B. L-Black stuff, with a lining of white silk, bordered with light blue silk.
(2.) Successful candidates for these degrees shall be required to appear at Convocation in the proper academic costume, to have the degrees conferred upon them. Degrees will be conferred in the absence of the candidate only by special permission of the Senate.
§ XXIII.-Fees.-(1.) Fees are payable by students for Registration, for the use of the Gymnasium, for classes attended, and for certain examinations. They are payable in advance.

No student shall be allowed to enter a class until he has paid the proper fees.

The following is a statement of the fees payable by students generally, and of the special privileges granted to under-graduates:-
Registration Fee, payable annually by all students $\$ 200$
Gymnasium Fee, payable annually by all male students attending more than one class, except registered students of the Halifax Medical College
Fee for each class attended, per Session + (except the Practical Chemistry and Physics Classes)
Fee for each of the Practical Chemistry and Physics Classes for every three months of practical work in Laboratory......
Supplementary Examination Fee, payable on giving the notice
required by \& xı. (12) ... .............................. 200
600

Special Examination Fee, payable on giving the notice required by § xı. (12)
Fee for special Certificate of Standing......................... 500

[^15]Undergraduates shall in general pay one fee of six dollars to each Professor whose classes they may attend as parts of the ordinary course : but in the case of the Professors of Classics and Mathematics fees shall be paid in both the first and the second years of their course, in the case of the Professor of Modern Languages fees shall be paid twice by undergraduates taking either one language during more than two years or two languages for two years, in the case of the Professors of Chemistry and Physics, fees of $\$ 6.00$ per session shall be paid for Practical Classes by undergraduates taking these classes, and in the case of the Professor of English Literature a fee of $\$ 6.00$ shall be paid by undergraduates taking the third and fourth years English Class.-No fees are required for the Tutorial classes in Classics and Mathematics.-An undergraduate taking a Special Course shall pay a fee of $\$ 6.00$ to each Professor whose advanced classes he may attend.

## (2.) The graduation fees are as follows:

Fee for the B. A. or B. L. or B. Sc. Diploma, which is payable by candidates before the Spring Examinations of the Fourth Year, and will be returned in case of failure...... \$ 5 00 Fee for M. A. Diploma, which must accompany the Thesis, and will be returned if the Thesis is not sustained............ 1000
Fee for B. A or M. A., (ad eunder gradum).................... 1000

## datulty of fatio.

The President, (ex officio.)<br>Professors: Weldon, Russell, Lecturers: Townshend, J., Shannon, Graham, J., Payzant, Harrington, Dean of the Faculty: Professor Weldon. Secretary of the Faculty: Professor Russell.

## § XXIV.-Courses of Lectures.

The following courses of lectures to be given in the Session of 1890-91, will begin on the 3rd September, 1890, and end on the 13th February, 1891.

## CONSTITUTIONAL AND INTERNATIONAL LAW.

(George Munro Professorship.)
$\qquad$

## Constitutional Law.

Two lectures per week.
Subjects of lectures:
Law of Parliament. Select cases in Constitutional Law. British North America Act.

Text book: Cartwright's Cases.

Constitutional History.
Two lectures per week.
Subjects of lectures:
Anglo-Saxon Royalty. The Judicial System of the Anglo-Saxons. The Witanagemote. 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. Magna Carta. Petition of Right. Bill of Rights. Habeas Corpus.

Text book: Taswell-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 effects of foreign judgments. Select cases upon the Conflict of Laws.

Text book: Dicey's Domicil.

## International Law.

One lecture per week.
Subjects of lectures:
Sources, Subjects, Objects and Sanctions of International Law. Sovereinns, Consuls, Ambassadors, Rights and Duties of Neutrals. Reprisals, Contraband, Blockade, Rights of Search, Privateering, Capture and Recapture, Construction of Treaties, Extradition.

Text book: W.oolsey's International Law.

## CRIMES.


One lecture per week.
Subjects of lectures:
Sources of Criminal Law. Felonies and Misdemeanours. Offences against property, against persons, against the Queen and Her Government, against Public Justice, against Public Peace, against Public Trade, against Public Morals. Conspiracy. Accessories. Offences after previous convictions.

Text book: Burbidge's Digest of Criminal Law.

## REAL PROPERTY.

Lecturer.......................................... Shon. Shanon, Q. C., D. C. L.
One lecture per week.
Subjects of lectures :
Estates in Fee Simple; Estates for Life; Estates in Remainder, and Reversion; Joint-Tenancy and Tenancy in Common; Estates for Years; Landlord and Tenant ; Easements ; Devises; Descent of Real and Personal Property.

Text books: Williams' Real Property, and Tud rr's Leading Cases.

## CONTRACTS.

$\qquad$
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 infancy, coverture, lunacy, intoxication, \&c. Express and implied contracts. Verbal and written contracts. Specialties. Statutory requirements as to validity and authentication of contracts; Statute of Frauds. Causes vitiating 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.

Lecturers............................ Mr. Justion Townshend and Profegsor Russell.
One lecture per week, extending over two years.
: Subjects of lectures :
Trusts, Mortgages, Fraud, Mistake, Specific Performance of Contracts, Administration of Assets, Election, Account, Discovery, Injunction.

Text book: Smith, H. A.

## MARINE INSURANCE.


One lecture per week.
Subjects of lectures:
Parties to and Agents for Marine Insurance ; The Policy ; Duration; Misrepresentation; Concealment; Warranties; General and Particular Average ; Total Loss; Abandonment.

Text book: Arnould.
TORTS.
Lecturer ..................................................Mr. Payzant, A. M.
One lecturc per week.
Subjects of lectures:
Definitions. Torts considered with reference to Crimes and Contract. Deceit. 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.

## EVIDENCE.


One lecture per week.
[1890-91.]
Subjects of lectures:
Nature of Proof, Production and Effect of Evidence, Relevancy, lnstruments of Evidence.

Text books: Greenleaf on Evidence ; Judicature Act and Rules.

## PARTNERSHIP AND COMPANIES.


One lecture per week.
[1891-2.]
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.

## SALES OF PERSONAL PROPERTY.

Lecturer.
Professor Russblil
One lecture per week.
[1890-91.]
Subjects of lectures :
Capacity to buy and sèll. Executed and executory contracts of sale. Statute of Frauds. Lord Tenterden's act. Rules as to passing. of property. Reservation of jus disponendi. Stoppage in transitu. Condition, warranty, express and implied. Remedies of seller and buyer.

Text book: Benjamin on Sales.

## NEGOTIABLE INSTRUMENTS.

Lecturer ......................................................................................
One lecture per week.
[1891-2.]
Subjects of lectures:
Formal Requisites. Consideration. Indorsement and Transfer. Real and personal defenses. Over-due paper. Notice of Dishonor. Protest. Bill or note.

[^16]§ XXV.-The Academic Year.-The academic year consists of one Session. The Session of 1890-1 will begin on the 2nd of September, 1890, and end on the 23rd of April, 1891.
§ XXVI.--Admission of Students.-(1.) Students may enter the University by (a) furnishing satisfactory references or certificates of good moral charaster, (b) entering their names in the Register, and (c) paying the prescribed fees.
(2.) Registered students may, on payment of the proper fees, (see page 62), 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 either one of the Matriculation Examinations or a recognized equivalent, and (b) matriculating, i. e., entering their names on the Matricula or Register as Undergraduates.
(4.) Students who are not undergraduates are known as General Students.
§ XXVII.-Degree of Bachelor of Laws. - (1). Candidates for the Degree of LL. B. are required to pass the Matriculation Examination, or a recognized equivalent, and to pass the Sessional Examinations in the subjects of the three years course of study.
(2.) Undergraduates of other Law Schools may, on producing satisfactory certificates of standing, be admitted to similar standing in this Law School if, on examination, 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.
(3.) Graduates in Arts who have taken the classes of Constituitional History, Constitutional Law and Contracts, as parts of their Arts Course, shall be allowed to graduate in two years from the date of their entering upon the Law Course, provided they take in those years all the other classes specified.
§ XXVIII. - Matriculation Examination. - (1.) Candidates for entrance into the First Year of the Course shall be examined in the following subjects, except in cases in which certain Examinations mentioned below shall have been already passed :-

Classiçs.-Xenophon-Anabasis, Books one and two. CiceroThe 1st and 4th Orations against Catiline. Virgil-Aneid, Books one and two. Translation from English into Latin. Latin Grammar.

Mathematics.-Arithmetic ; Geometry-Books one, two and three of Euclid

English.--A paper on English Grammar and Composition.
History and Geography.-English History; Geography, North America and Europe.

Elements of Book-keeping.
Students may substitute French for Greek.
(2.) Persons desirous of appearing as candidates at this examination must give notice to the Dean of the Faculty on or before August 25th, 1890 ; and they shall be required to pay a fee of $\$ 5.00$ on the morning of the day of Examination - The Examination will be held next Session on Tuesday, September 2nd, at 10 o'clock, A M.
(3.) 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, or in Newfoundland, shall be admitted to the standing of Undergraduates of the First Year in the Faculty of Law, without passing any examination.

## § XXIX.-Course of Study for Degree of LL.B.

## First Year.

1. Real Property. ${ }^{\checkmark}$
2. Contracts.
3. Crimes.
4. Torts.

## 5. Constitutional History.

1. Equity.

## Second Year.

2. Paty 1 .
3. Partnership and Companies. 4. Constitutional Law.
4. Conflict of Laws.

Third Year.

1. International Law.
2. Insurance

## 5. Sales of Personal Property.

Undergraduates are required to attend with regularity the classes of their respective years. The extent of absence from prescribed classes which shall disqualify for the keeping of a Session shall be determined by the Faculty.

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. The Course having been very considerably enlarged, the Faculty apprehend that students who are doing regular office work during Session, will find it quite impossible to pass with credit the required examinations.
§ XXX.-Sessional Examinations.-(1.) The Sessional Examinations will be held in February, 1890, on the completion of the lectures in the several subjects.
(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 one or two subjects of 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 on 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 to the Dean of the Faculty on or before August 25th, 1890.
(6.) The Supplementary Examination for the present year will begin September 2nd, at 10 o'clock, A. M. Fee, $\$ 5.00$, payable on the morning of Examination.
§ XXXI.-Moot Courts. - Moot courts will be held every fortnight, and will be presided over by some member of the Faculty, or a Barrister selected by the Faculty. Every candidate for a degree shall be required to take part in arguments at the Moot Court. The senior counsel on either side shall be required to file briefs with the Dean before noon of the day preceding that on which the case is argued. A record will be kept of the values assigned to the arguments made, and these values will be considered by the Faculty in recommending a candidate for his degree.
§ XXXII.-Mock Parliament.-The students have organized a Mock Parliament for the discussion of legal and constitutional questions. This Parliament is largely attended, and is found to be of great utility.
§ XXXIII.-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 bordered with gold coloured silk.
§ XXXIV. -The Library.-The Library has a good set of English and Canardian Reports, and will be found to contain almost all the books which an undergraduate will have occasion to consult.
§ XXXV.-Fees.-The following are the fees payable by Students of the Faculty of Law. They are in all cases payable in advance.

Seats in the Lecture Room will not be assigned to Students until they have paid their Class Fees to the Dean.

Students are requested to pay their Class Fees and sign the University Register on Tuesday, 2nd September, 1890, at 10 A. м., in the office of the Law School.

Registration Fee, payable only by general students...........\$200
Fee for each class attended, per Session, payable by general students
Fee for the classes of the First Year, payable by undergraduates 4000 Fee for the classes of the Second Year, payable by undergraduates 4000 Fee for the classes of the Third Year, payable by undergraduates 3500 Fee for Ll.B diploma, which is payable before the final exami-
nation, and will be returned in case of failure ............. 1000
Fee for the Matriculation Examination ............................ 500
Fee for the Supplementary Examination........................ . . 500
Students of any year are permitted to attend lectures in the subjects of an earlier year without extra charge.

## diaculty of detcoicine.

The President, (ex officio).<br>Prof. Lawson,<br>Dr. Somers,<br>" Sinclair,<br>" Campbell,<br>" Lindsay,<br>" Stewart,<br>" Pace,<br>" SLAyter,<br>"6 Parker,<br>" Farrell,<br>" Cowie,<br>" Black,<br>" REID,<br>" Morrow,<br>Mr. Shannon,<br>" Simson,<br>Dean of the Faculty: Prof. Lawson,<br>Secretary " Dr. Lindsay,

§ XXXVI.-Course of Instruction.-1. Instruction is provided by the University in the following subjects of the Medical Curriculum :

## I. CHEMISTRY.

Professor. . . . . . . . . . . . . . . . . . . . George Lawson, Ph. D., Ll. D.
Daily Lecturés, 9 A. M.-10 A. M.
With experimental demonstrations.
Part I.-Inorganic.-Object and nature of the Science. General Principles: Chemical Affinity ; Laws of combination, by weight, by volume. The Elements. Equivalents; Atomic Numbers; Atomicity. Nomenclature; Notation; Formulae; Equations. The Non-Metallic Elements and their compounds considered in detail. The Atmosphere. Water. Methods of Water Analysis. Mineral Waters. Combustion; Respiration. Anhydrides. Acids. Manufactures of Chlorine compounds, Acids, Ammonia, etc.

The Metals : their physical and chemical characters; Classification, \&c.; Salts; Bases ; Acids ; Radicals. The Metals and their compounds considered in detail. The Metals of the Alkalies, and the Alkali manufactures. Classification and separation of Bases. The Alkaline Earth Metals and their compounds. Magnesium Salts: Aluminum and the Earth Metals. Constitution of Silicates. Iron, its salts and other compounds. Reduction of 1ron Ores. In diseussing the Metals, special attention is given to the Salts and other compeunds of Mercury, Antimnny, Arsenic, Bismuth, Silver, Copper, Lead, Tin, and the methods of testing for metallic poisons, their detection in organic: mixtures and tissues, and their quantitative analysis.

Part II.-Organic. - Theory of Organic Compounds, founded on Marsh Gas as a starting point. Functions of Organic Compounds. Principles of Classification. Saturated Hydrocarbons; Homologous Series. Monatomic Alcohols and their derivatives; Methyl Alcohol; Choloroform. Ethyl Alcohol; Ether; Nitrous Ether; Nitric Ether. Series of Saturated Hydrocarbons. Alcohols. Aldehydes. Volatile Fatty Acids, Compound Ethers. Chloral. Chloroforn. Polyatomic Compounds. Fats. Saponification. Polyatomic and Polybasic Acids. Sugar and Starches. Fermentation. Glucosides. The Aromatic Compounds. Benzol; Phenol; Aniline, \&c. The natural Alkaloids. of Opium ; Nicotine; Quinine ; Strychnine; Caffeine; Morphine, \&c. Albumen. Urea. Uric Acid. Urinary Calculi and other deposits; methods of determining their chemical composition, and presence of Glucose, Albumen, \&c., in urine. Analysis of Milk, Alcoholic Solutions, \&c.

Text Book: Fawnes' Manual of Chemistry (English or American Edition); or Greene's Edition of Wurtz's Elements.

## Practical Chemistry.

Systematic Courses of Testing for Metallic Bases, and Inorganic and some of the more common Organic Acids, with special exercises. Where students can give the necessary time, this course will be followed by processes of detection of Metallic Poisons; examination of Urine for Glucose, Albumen ; nature of Calculi and other deposits. Sanitary Analysis:-Atmospheric Air ; Water. Mineral Waters.

Text Boolcs: Macadam's Practical Chemistry. Bowman's Medical Chemisty. Special Tables are used in the Laboratory, and reference books may be consulted by students in the Balance Room.

## [I. BOTANY.

Professor . . . . . . . ......................energe Lawson, Ph. D., Ll. D.

## Lectures Tuesdays, Thursdays and Fridays, 10-11 A. M.

The Vegetable Cell: its structure and contents. Typical and Transformed Cells; Tissues, Parenchyma, Prosenchyma. Minute Structure and Development of the Root, Stem and Leat. Structure and Development of the Flower, Fruit and Seed. Vegetable Protoplasm: its structure, chemical character and movements ; effects upon it of Light, Electricity, Irritation, Gravitation, Moisture, Gases. Plant Growth: Relations of the plant to the soil and atmosphere. Diffusion, Osmosis, Absorption, Transpiration, Assimilation. Production of organic matter in the plant: Transmutation or Metastasis. Respiration, Vegetable Growth. Movements, of Chlorophyll, of organs (Circumnutation), Nyctitropic. Reproduction: Fertilization. The Seed, Germination,- dependent upon moisture, free oxygen, temperature. Effects upon plants of extremes of temperature.

Classification of Plonts: The Natural System of Classification. The distinctive structural characters and geographical distribution of the more important natural orders will be given, with special attention to those orders containing poisonous plants, and plants used in medicine.

Text Books : Goodale's Physiological Botany (being Vol. II of Gray's Botanical Text Book) ; Gray's How Plants Grow, with Lawson's Fern Flora.

Field Books for Summer Work: Gray's Manual of Botany of the Northern States.
2. Students wishing to attend the above courses may do so either as General Students withont preliminary examination, or as Undergraduates. In either case they must enter their names in the University Register at the beginning of the Session.
3. In other subjects, the necessary classes may be attended at the Halitax Medical College or at any other recognized School of Medicine.
4. Attendance on classes by those registered as General Students, or as Undergraduates of other Faculties, will not qualify for Degree Examinations in this Faculty.
§ XXXVII. - The Academic Year.-The Academic Year consists of one session. The session of $1890-91$ will begin on Wiednesday, October 29th, 1890, and end on Thursday, April 23rd, 1891.

In order to qualify for Degree Examinations, the Medical Academic Year must include attendance on at least two courses of 100 lectures each, or one such and two of 50 each.
§ XXXVIII.-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.
§XXXIX.-Matriculation Examination.-1. Candidates for medical degrees must give evidence of having obtained a satisfactory general education before entering upon the course of study qualifying for the degrees, by passing either the Matriculation Examination of this Faculty or some other examination recognized by the Senate as sufficient.
2. The following are the subjects of the Matriculation Examination.
(1.) English, including (a) writing a passage of English from dictation.
(b) English Composition, with the correction of sentences of bad English.
(c) Questions in English Grammer with analysis of sentences and derivation and definition of some common English words.
(d) Questions in Geography and History, especially in the History of the British Islands and of English Literature.
(2.) Latin, including Grammar and Translation of an easy passage from a Latin prose author*, and re-translation into Latin of a single passage of English (translated from a Latin author) the more difficult Latin words being given.
(3.) Arithhetic, the common rules including Vulgar and Decimal Fractions.
(4.) Elements of Mathematics, comprising (a) Geometry, Euclid, Books I, II, and III ; (b) Algebra, including Simple Equations.
(5.) Elements of Dynamics (Meghanics), comprising Elementary Kinematics, Statics, Kinetics and Hydrostatics, as treated in Blaikie's Elements of Dynamicst (Thin, Edinburgh).
( 6 and 7.) Any two of the following subjects :
(a) Greek, including Grammar, Translation from specified authors*, and Translation of easy English sentences into Greek prose.
(l) French, including Grammar, Translation from specified authors*, and translation of easy English sentences into French.
(c) German, including Grammar, Translation from specified authors*, and translation of easy English sentences into German.
(d) Natural Philosophy, as in Balfour Stewart's Elementary Physicst (Macmillan \& Co.)
(e) Logic, as in Jevon's Elementary Lessons in Logic $\dagger$ (Macmillan \& Co.)
3. This Examination will begin on Wednesday, the 29th of October, 1890, in the College Hall, and will be conducted by instructors of the Arts Faculty.-Persons who wish to appear as candidates are required to give notice to the Secretary of the Faculty at least fourteen days before the date of Examination (specifying in such notice the elective subjects in which they wish to be examined), to enter their names in the Register of Candidates, and to pay a fee of Ten Dollars.
4. This Examination satisfies the requirements of the General Medical Council of Great Britain as to the preliminary examination which must be passed by persons wishing to register as medical students; and also satisfies the requirements of the University of Edinburgh in the same respect.-Certificates will be issued to candidates showing the subjects in which they passed and the extent to which their knowledge of these subjects was tested.-For classes in the Arts Faculty in which candidates may prepare for the above Examination, see $\$ \S \mathrm{I}$. and XIV.
5. A certificate of the possession of a University Degree in Arts, or of the Teacher's Grade A License of Nova Scotia, or

[^17]of having passed the Matriculation Examination of the Provincial Medical Board of Nova Scotia, shall be considered by this University sufficient evidence of satisfactory generel education.
6. The Matriculation and Sessional Examinations of any chartered University or College ; and also the Preliminary Examination of any Medical Licensing Board in Her Majesty's dominions will be recognized pro tanto.
7. Candidates who may have passed in all subjects but one, either at the University or the Nova Scotia Medical Board Matriculation Examinations, may enter as undergradurtes, and will be allowed after six months to pass a Supplementary Examination in the subject in which they previously failed.
§ XL.-Degree Examinations.-Candidates for the Degrees of M. 1). and C. M. shall be required to pass two 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 attendance on classes, etc.

## § XLI.-Primary M. D., C. M. Examination.-

 1. Candidates for this examination shall be required to produce certificates to the following effect:--(1.) Of having passed the Matriculation Examination, or other examination recognized as sufficient, at least two academic years previously, and of having completed their sixteenth year at the date of passing said examination.
(2.) Of having, after passing the Matriculation or other equivalent examination, attended either in this University, in the Halifax Medical College, or in some other School of Medicine approved by the Senate, two courses of 100 lectures each, in each of the following subjects viz:-Anatomy, Chemistry, Materia Medica and Physiology ; and two courses of instruction of the same duration in Practical Anatomy, in the course of which they shall have dissected the whole body (i.e., the head and neck and upper and lower extremities) at least twice.
(3.) Of having, after passing the Matriculation Examination, attended either in this University, in the Halifax Medical College, or in some other University or College, approved by the senate, one course of instruction of fifty lessons each, in each of the following subjects, viz., Botany and Practical Chemistry, and one course of twenty-five lectures or demonstrations in Histology.
(4.) Either of having, after passing the Matriculation Examination, attended at the Halifax Medical College or at
some College approved by the Senate, one course of instruction of fifty lessons in Practical Pharmacy, or of having had three months' practice in the dispensing of drugs with a recognized apothecary or dispensing medical practitioner.
2. Candidates shall be required to pass written and oral examinations in Chemistry (including Practical Chemistry), Botany, Alatomy (including Practical Anatomy), Physiology (including Histology), and Materia Medica (including Practical Pharmacy.
3. Candidates may appear for examination in Botany one academic year after passing the Matriculation Examination, on presentation of the certificates specified above, so far as they apply to this subject.
4. The Primary M. D., (. M. Examination will be held in the third week in April. Candidates are required to transmit the certiffcates specified above to the Secretary of the Faculty, at least fourteen 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 two-fifths of the amount of the graduation fee. Should the candidate fail to pass, the fee will not be returned to him, but he will be admitted to any one subsequent Primary Examination without fee.

## § XLII.-Final M. D., C. M. Examination.--1.

 Candidates for this examination shall be required to furnish certificates to the foliowing effect, viz. :-(1.) 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 furm :-

$$
\text { Halifax, }-18-
$$

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, and that I am not (or shall not be at that time) under articles as a pupil or apprentice to any Physician, Surgeon or A pothecary,
(Signed),
A. 13 .
(2.) Of having passed the Primary M. D., C. M. Examination at this University, or of having passed the same examination at the Halifax Medical College.
(3.) Of either (a) having attended during four academic years at least two course of lectures per year in subjects of the Primary and Final M. D., C. M. Examinations either in this University or at the Halifax Medical College, or at some other recognized Medical School ; or (b) having spent one calendar
year in the study of Medicine in the office or officts of one or more registered medical practitioners, and having attended during three academic years courses of lectures as above.
(4.) Of having, after'passing the Matriculation Examination, attended at the Halifax Merlical College, or at some other School of Medicine approved by the Senate, two courses of 100 lectures each, in each of the following subjects, viz. :-Principles and Practice of Surgery, Obstetrics and Diseases of Women and Children, and Principles and Practice of Medicine ; two courses of lectures of fifty leatures each, in each of the following subjects, viz. :-Clinical Medicine and Clinical Surgery ; and one course of fifty lectures in Medical Jurisprudence, including Hygiene and Insanity.
(5.) Of having, after passing the Matriculation Examination, attended during one calendar year the practice of the Victoria General Hospital, or that of some other Hospital approved by the Senate.
(6.) Of having attended for at least six months the practice of a lying-in hospital, approved by the Senate, or of having attended at least six cases of midwifery under a recognized practitioner.
(7.) Of having obtained proficiency in the practice of Vaccination under a recognized practitioner.
2. Candidates will be required to pass written and oral examinations in the fullowing subjects:-Principles and Practice of Medicine, Obstetries and Diseases of Women and Children, Principles and Practice of Surgery, and Medical Jurisprudence (including Hygiene and Insanity). The oral examination in Medicine and Surgery shall include clinical examinations conducted at the bedside, cases being submitted for diagnosis and treatment.
3. Candidates may appear for examination in Medical Jurisprudence (including Hygiene and Insanity) alone, three academic years after passing the Matriculation Examination, on presentation of the certificates specified above, so far as they apply to this subject.
4. This examination will be held in the third week in April. Candidates are required to transmit the certificates specified above to the Secretary of Faculty at least fourteen days before the date of the Examination, to enter their names in the register of under-graduates before the date of the examination, and to pay before the date of the examination threefifths of the amount of the gradnation fee. Should the candidate fail to pass, the fee will not be returned to him, but he will be admitted to any one subsequent Final Examination without fee.
§ XLIII.-Academic Costume, etc.-1. 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.
2. 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.
3. Before receiving his degree, the candidate will be required to sign the following oath or affirmation :-

## Sponsio Academica.

In Facultate Medicinæ Universitatis Dalhousianæ.
Eso, Doctoratus in Arte Medica, titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo $;-$ me in omni grati animi officio erga Universitatem Dalhousianam ad éxtremum vite halitum, perseveraturum; tum porro artem medicam caute, caste, et probe exercitaturum ; et quoad potero, omnia ad ægrotorum corporum salutem conducentia, cum fide procuraturum; que denique, inter medendum, visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita presens mihi spondenti adsit Numen.
§ XLIV.-Fees.-The following fees, payable by candidates for the degree of M. D. C. M., are in all cases payable in advance :-
Registration Fee ..... \$ 200
Matriculation Examination Fee ..... 1000
Chemistry Class Fee ..... 1200
Chemistry Laboratory Fee (three months' course), ..... 600
Botany Class Fee ..... 600
Graduation Fee. ..... 2500

## モnstitutions.

## THE UNIVERSITY LIBRARY.

The General $\dagger$ Library consists of about 3500 volumes, selected to meet the wants especially of students of the Faculty of Arts.

It 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; and the Robert Morrow Colleotion of works on Northern Antiquities and Languages, presented by Mrs. Robert Morrow.

During the past year, 232 volumes have been added to the Library. Volumes have been presented by the following: Robert Sedgewick, Esq., B. A., Deputy Minister of Justice, 1; Rev. John de Soyres, M. A., St. John, N. B., 1; Prof. F. C. Sumichrast, Harvard University, 1 ; Howard Murray, Esq., B. A., Halifax Academy, 7 ; J. G. Bourinot, Esq., C. M. G., LL. D., D. C. L., 1 ; Prof. D. A. Murray, University of the City of New York, 1; W. F. Ganong, Esq., Cambridge, Mass., 1 ; Prof. MacGregor, 3 ; Prof. Mac Mechan, 3 ; Prof. Alexander, 1 ; Prof. Lawson, 1; W. H. Magee. Esq., 1; M. le Vte. Francois de Salignac Fénélon, 1 ; Prot. Seth, 3 ; the Editors of the Dalhousie Gazette, 1 ; the Department of the Interior, U. S. A., 26 ; the Bureau of Education, U. S. A., 1 ; the Smithsonian Institution, 10 ; Geological and Natural History Survey of Canada, 3 ; the Meteorological Service of the Dominion of Canada, 1; the College of Physicians and Surgeons, Toronto, 1 ; the Education Department, N. B., 1 ; the N. S. Institute of Natural Science, 1 ; the N. S. Legislative Library, 2 ; Messrs. Macmillan \& Co., 32 ; Messrs. Rivingtons, 2; Messrs. J. \& A. McMillan, St. John, N. B., 1.

Also Calendars, \&c., by the following: Universities of London, Durham, Edinburgh, Glasgow, Aberdeen, Toronto, Laval, Ottawa, Queen's College, McGill, Acadia, Mt. Allison, Harvard, College of New Jersey, Vassar, Lehigh, Lake Forest, Western Reserve, California, St. Francis Xavier, University of Buenos Aires, Polytechnic Institute, Stevens' Institute of Technology, Wesleyan Theological College, Montreal ; Hahnemann Medical College, L'Académic Commercial, Montreal.

[^18]
## 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 1884, by the Rev. William McCulloch, D. D., of Truro, with a fund of $\$ 1400$ for its maintenance and management. 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, collections of shells, fossils, minerals, rock specimens and Indian implements, made in part by Rev. Thomas McCulloch, I. D., the first President of the College, and collections of dried specimens of native plants.

The Patterson Archeological Collection.-This collection of Indian Antiquities was made by Rev. George Patterson, D. D., 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 ohtained in Nova Scotia; they represent 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 especiaily the New Hebrides. The classified catalogue of the collection, which is arranged according to the method adopted in the description of the Archæological Collections of the Smithsonian Institution, contains full particulars of the localities where the several specimens were obtained.

Donations of Dried Plants from the Pacific Islands and Australia have been made by Rev. Hugh Rubertson and Rev. Joseph Annand, M. A., New Hebrides; and of Nova Scotian Plants by Mr. George G. Campbell, B. Sc., Truro.

A Collection of Carbonifrrous Fossils, from the coal measures at Spring Hill, has been presented by Mr. Swift, of the Spring Hill Mines, Cumberland County.

[^19]
## THE GYMNASIUM.

The Gymnasium is provided with apparatus which was purchased by funds contributed for the most part by former students.

Instruction is furnished by a competent Gymnast.
The following are the general regulations for the use of the Gymnasium :
(1.) All male students, graduates, and members of the Alumni Association shall, on paying the sessional fee, be entitled to the use of the Gynmasium.
(2.) Students shall be entitled to instruction in gymnastics without the payment of any additional fee.
(3.) Graduates and members of the Alumni Association shall be admitted to the classes, on payment of a fee of three dollars.

Gold and Silver Badges are offered by the President for competition at the close of the session,

## amibersity Hists.

DEGREES<br>Conferred April 24th, 1890.

## BACHELOR OF ARTS.



## doctor of medicine and master of surgery.

Kent, Hedley Vicars Truro, N. S.

## MASTER OF ARTS.

Smith, James Festus, B. A........ River Hebert, N. S.
Burkitt, Robert James, B. A..... Athenry, Ireland.

## CERTIFICATE OF SHORT COURSE IN JOURNALISM.

Higgs, Benjamin Darby.......... Charlottetown, P. E. I.

## GENERAL PASS LIST.

(Containing the names, alphabetically arranged, of Undergraduates who have passed in all the subjects proper to their years.)

## FACULTY OF ARTS.

## For B. A. Degree.

Fourth Year: Camphell, D. F.; Chapman, A. E.; Cogswell, G. A.; Fisher, J. M. ; Fulton, Eben; Grierson, Robt.; Laird, Alex.; Lewis, E. W.; Mackinnon, J. A.; Mackintosh, D. C.; Macleod, F. J.; McKay, D. O.; Millar, George; Rattee, E. J.; Rowlings, G. A.; Schurman, G. W.; Smith, E. B.

Third Year: Baxter, Agnes S.; Brehaut, J. W.; Cox, G. H. ; Goodwin, Emily M.; Hugh, D. D.; Jordan, E. J.; McCardy, J. F.; MacGlàshen, J. A.; Maclean, J. B.; McMillan, C. E.; McMillan, F. A.; McNaughton, Elizabeth; Magee, W. H.; Moore, C. L.: Morash, A. V.; Oliver, A. C. L.; Robinson, C. B. ; Stairs, H. B.; Tupper, J. W.; West, T. F.

Secont Year: Archibald, Sarah E.; Bakin, F. W. M.; Douglas, E. A.; Graham, R. H. : Harrington. Emily B.; Hill, A. R.; Johnson, G. F:; Johnson, J. B. ; Macdonald, A. F.; Mackay, M. S. ; Mackenzie, A. ; McDonald. A. J ; McIntosh. D. S.: McIntesh, J. A ; McNeill, Rod.; Sutherland, J. A ; Webster, K. G. T.; Weston, Clara P.; Weston, R. A.

First Year: Annand, E. E.; Barnstead, A S.; Dodge, B.; Finlayson, D.; Forbes, E. W.; Grant, R. J; Jamieson, Harriet J.; Kellogg, Mary H.; Logan. J. W.; McArthur, S. J. ; McKay, T. C.; McLean, C. A.; Murray, Lucy C.; Rankin, J.; Ross, G. E.

For B. L. Degree.
Third Year: Montgomery, J.; Muir, Ethel.
First Year: Fraser, J. G.
For B. Sc. Degree.
First Year: Arthur, G.

# FACULTY OF LAW. 

For LL.B. Degree.

Third Yeay: Allison, Edmund P.; Armstrong. B. H.; Bowser, Wm. J.; Cahan, Charles H.; Fairweather, Frederick L.; Frame, Joseph F.; Hamilton, Charles F.; Howay, Frederick W.; Huggins, Wm. H.; Macdonald, Wm.; McBride, Richard; McPhee, Daniel L.; Mellish, H.; Notting, Thos.; Oxley, Chas. H.; Roherts, John A.; Robertson, Thos. R.; Sinclair, J. A.; Stevers, Daniel J.

Second Year: Davinson, Jas. MacG.; Howatt, Cornelius A.; Logan, H. J; McDonald, Allan J.; McDonald, Joseph; McNeil, Alex.; Paton, V. J.; Ruggles, N. C.; Shaw, Alfred Enos ; Wickwire, H. H.

First Year: Adams, J. P.; Blackadar, H. S ; Bill, E. M. ; Casey, C. E.; Corbett, J. E. ; Dockrill, G. O'G. M. ; Fulton, W. H. ; Johnstone, L. M.; Kelly, J. K. ; Murray, R. G. ; Sangster, H. W.; Smith, H. S.; Trueman, W. H.

## FACULTY OF MEDICINE

Primary M. D., C. M. Examination.
Grant, William; Johnson, Isaac Wellwood ; Kent, Hedley Vicars;* Walsh, Thomas William.

> Final M. D., C. M. Examination.

Kent, Hedley Vicars.

## SPECIAL PASS LIST.

## FACULTY OF MEDICINE.

In accordance with the ordinary regulations or by special permission of the Faculty, the following were allowed examinations in the subjects set after their names and have passed in the same:-

Chisholm, Alex. J., Botany.
Coady, Patrick,
Dechman, Andrew A., "
Densmore, Howard S., "
Drysdale, George N., Botany and Practical Chemistry.
Fairbanks, Harry G., Botany.
Hamilton, Charles A., Physiology, including Histology, Anatomy including Practical Anatomy, Mat. Med including Plarmacy, Chemistry.
Irwin, Archer, Botany.
Kent, Hedley Vicars, Anatomy, including Practical Anatomy.
McAulay, Murdoch W., Botany.
McCharles, Rodk. W., Anatomy, including Practical Anatomy, Chemistry, including Practical Chemistry, Mat. Medica, including Pharmacy.
McDonald John C., Botany.
Meyer, Edward J..
"
Morrison, D. A.,
Purcell, John M., Anatomr, including Practical Anatomy and Histology. Rice, Frank E., Botany.
Turnbull, George D., Botany.
Walsh, Thomas W., Practical Chemistry.
Woodworth, Percy C., Physiology, including Histology, Chemistry, including Practical Chemistry, Mat. Medica, including Pharmacy.

[^20]HON OURS, MEDALS, Etc., 1889-90.

## HONOURS.

Greek and English.- First Rank.-F. J. MacLeod. Mathematics and Physics. - Second Rank.-G. A. R. Rowlings. Experimental Physics and Chemistry.-Second Rank.-D. O. McKay.

GENERAL DISTINCTION.
First Rank.-G. W. Schurman.
Second Rank.-E. W. Lewis.

## MEDAL.

The Governor-General's Gold Medal-F. J. MacLeod.

## SPECIAL PRIZES.

The North British Society's Bursary.-K. G. T. Webster. The Waverley Prize.-F. W. M. Bakin. The Early English Text Society's Prize.-F. J. MacLeod. The New Shakspere Society's Prize.-Miss S. E. Archibald.

## SENIOR MUNRO EXHIBITIONS.

(1) McLean, J. B.
(3) 'Tupper, J. W.
(2) Brehaut, J. W.
(4) Robinson, C. B.
(5) Hugh, D. D.

## SENIOR MUNRO BURSARIES.

(1) West, J. F.
(5) Baxter, Agnes S.
(2) Moore, C. L.
(3) Macrae, A. O.
(6) McMillan, F. A.
(7) Magee, W. H.
(4) Jordan, E. J.
(8) McMillan, C. E.

## JUNIOR MUNRO EXHIBITIONS.

(1) Logan, J. W.
(2) McKay, T. C.
(3) Forbes, E. W.

## JUNIOR MUNRO BURSARIES.

(1) Dodge, B.
(5) Barnstead, A. S.
(2) Grant, R. J.
(3) Jamieson, Harriet.
(6) Rankin, J.
(4) Robinson, D. M.
(7) Mackintosh, J. A.
(9) Murray, Lucy C.

## EXAMINATIONS, 1889-9 0.

## FACULTY OF ARTS.

## matriculation examination.

(The following list contains the names of those who either passed the Matriculation Examination, or were allowed to matriculate on report of the Examiners for Munro Bursaries. The names are in alphabetical order.)

First Year - Annand, E.; Arthur, G.; Barnstead, A. S.; Dodge, B.; Finlayson, D.; Forbes, E. W.; Fraser, J. G; Grant, R. J.; Jamieson, Harriet ; Keating, C. S.; Kellogg, Mary H.; Logan, J. W.; McArthur, J.; McKay, D. McG.; McKay, T. C.; Mackintosh, J. A.; McNutt, Elvin; Martin, A.; Murray, Lucy C.; Putnam, H.; Rankin, J.; Robinson, D. M.; Ross, H .

Second Year.-Caldwell, Lillian B. (couditionally) ; Morrison, W. C.; Thompson, W. S. (conditionally) ; Weston, Clara P.

## SUPPLEMENTARY EXAMINATIONS.

Third Year: Junior Physics.-Chapman, A. E.
Second Year: Greek.-McCurdy, J. F. Latin.-Gratz, H. G.; Morash, A. V Mathematics.-McCurdy, J. F. English.-Montgomery, J.; Morash, A. V.

First Year: Latin.-Mahon, J. A. Mathematics.-Pelton, C. S.

## SPECLAL EXAMINATIONS.

Metapyhsics.-Higgs, B. D. Advanced English.-Higgs, B. D.

## SESSIONAL EXAMINATIONS.

## CLASS LISTS

(Containing the names, arranged in order of merit, of all students who have passed in the subjects of the various classes.)

GREEK.
Fourth Year: Class I-McLeod, F. J. Class II-None. PassedGrierson, Robt.; Kattee, E. J.; MacIntosh, D. C.; Campbell, D. F.

Third Year : Class I-Brehaut, J. W. Class II-MacMillan, F. A.; Robinson, C. B. Passed-McLean, J. B.; Cox, G. H.; Oliver, A. C. L.; Moore, C. L.; West, T. F., Tupper, J. W.; Goodwin, Emily; McNaughton, Eliz.; Kennedy, J. S.; Mc.Millan, C. E.

Second Year: Class I-McNeill, Rod.; Macdonald, A. F. Class IIBakin, F. M.: Johnson, G. F.; Webster, K. G. T. Passed-Johnson, J. B.; (Graham, R. H.; McIntosh, J. A.) ; (Archibald, S. E.; Logan, J. D.) ; Hill, A. R.; (McKay, M. S.; Sutherland, J. A.) ; Macdonald, A. J.; Douglas, E. A.; Campbell, R. S.; McIntosh, D. S.; McKenzie, A.

First Year: Class I-Logan, J. W.; McKay, T, C.; Ross, Hedley. Class II-Martin, Albert; Robinson, D. M.; Forbss, E. W. Passed-Barnstead, A. S.; Murray, Lucy (C.; Dodge, Blanchard; McKay, D. G.; Ross, Geo. E.; McLean, C. A.; Grant, Robt J.; Rankin, Jas.; Annand, E.; O’Brien, R. F.; McArthur, S. J.; Tobin, W. R.; Jamieson, Harriet.

LATIN.
Fourth Year : Class $I$-Schurman, G. W. Class II-Lewis, E. W.; Smith, E. B. Passed-Fulton, Eben ; Cogswell, G. A.; Chapman, A. E.; MacKinnon, J. A.

Third Year : Class $I$-Brehaut, J. W.; Robinson, C. B. Class II-Stairs, H. B.; (Jordan, E. J.; MacMillan, F. A.) Passed-Thomson, J. W.

Second Year: Class $I$-McNeill, Rod.; Webster, K. G. T. Class 1 I-MacDonald, A. F.; Campbell, R. S.; Bakin, F. M.; Johnson, G. F. Passed-Weston, R. A.; Hill, A. R; McKay, M. S.; McIntosh, D. S.; Graham, R. H.; Archibald, Sarah E ; Weston, Clara P.; Sutherland, J. A.; Fullerton, Arch.; MacIntosh, J. A.; Logan, J. D.; McKeen, G. W.; Johnson, J. B ; Macdonald, A. J.; Douglav, E. A.; Pelton, C. S.; Doherty, Phil,; Caldwell, Lilian ; Thompson, W, S ; Millar, George; McKenzie, A.; Morrison, W. C.

First Year: Class I-Logan, J. W.; (Forbes, E. W.; McKay, T. C.) ; Martin, Albert ; Ross, Hedley. Class II-Robinson, D. M.; Murray, Lucy C.; Dickie, Bessie. Passed-McDonald, Ida G; McLean, C. A.; Finlayson, Duncan ; McArthur, S. J., Grant, Robt. J.; Rankin, Jas.; Annand, E.; Barnstead, A. S.; Ross, Geo 1..; McKay, D. G.; Kellogg, Mary H ; O'Brien, R. F.; Jamieson, Harriet ; Kirk, Jos. H.; McNutt, Elvin.

FRENCH.
Third Class. Class II-Pelton, Charles S.; Montgomery, J.
Second Class: Class I-Brehant, J. W.; Kellogg, Miss May. Class II-Arthur, George; Weston, R. A.; Hobrecker, Miss Clara; Cogswell, G. A. Passed-Rowlings, G. A. K.; Weston, Miss C. P'; Fraser, J. G.; Chapman, A. E.; Mackintosh, D. C.

First Class: Class I-Hugh, D. D.; McNaughton, Miss E.; Goodwin, Miss E. M. Liechti, Miss Bertha. Class II-Finlayson, Duncan ; McCurdy, Jas. F. Passed-Grierson, J. A.; Keefler, R. J.; Myers, J. S.; Keating, C. S.

GERMAN.
Third Class: Class II-Muir, Miss Ethel.
Second Class: Class I-Hobrecker, Miss Clara; Liechti, Miss Bertha; Logan, J. H.; Rattee, E. J., Grierson, Rob. Class II-Macleod, Fied. J.; Smith, E. B. Passed-Dickie, Miss Bessie; Lear, G. A.; McKeen, George W.

First Class: Class I-Baxter, Miss Agnes; Tupper, J. W.; Arthur, Geor'e. Class $I I$-Maclean, J. B.; Fraser, J. G. PassedMcNutt, Miss Eivin ; Putnam, H.; Montgomery, J.

## ENGLISH.

Second Year: Class I-Archibald, S. E. Class II-Harrington, S. B.; Johnson, G. F.; Webster, K. T. G.; McIntosh, D. S.; Hobrecker, C. C.; Weston, R. A. Passed-McNeill, R.; Morrisun, W. C.; McIntosh, J. A.; McDonald, A. J.; Huestis, L. S.; Graham, R. H. ; Weston, C. P.; MeDonald, A. F.; Campbell, R. S. ; Bakin, F. ; Hill, A. R., McKay, M. S. ; Sutherland, J. A. ; McKeen, G. W. ; Mahon, J.; Johnson, J. B.; McKenzie, A.; Douglas, E.; Pelton, C. S.

First Year: Class I-Logan, J. W. Class II-Ross, H.; McKay, T. C.; Arrhur, G. Pussed-Forbes, E. W.; Rankin, J.; Ross, G. E.; McKay, D. G.; Hobrecker, C. C. ; Dickie, B. ; Jamieson, H.; Barnstead, A. S ; Finlayson, D.; MeArthur, S. J.; Murray, L. C.; Mitchell, G. F.; Grant, R. J.; Dcdge, G. B.; McDonald, I.; McLean, C. A. ; Martin, A.; Kirk, J. H.; Leichti, B. ; Parker, L. W. ; Annand, E. E.; Kellugg, M.; Mc Nutt, E; Doherty, P.

## HISTORY.

Fourth Year: Class I-Schurman, G. W. ; Lewis, E. W.; Laird, Alex. ; Campbell, D. F. Class II-Chapman, E. ; Rattee, E. J.; McKay, D. O.; Millar, Geo.; Fulton, Eben; Fisher, J. M. Passed-Grierson

Third Year: Class I-Magee, W. H.; Macrae. A. O. Class $1 I$ Harrington. E. B. ; Stairs, H. B.; McMillan, F. A.; Tupper, J. W.; Robinson, C. B.; Oliver, A. C. L.; McLean, J. B. Passed-Montgomery, Jno. ; West, T. F.; Moore, C. L.; McNaughton, E. ; Muir, Ethel; Grierson, J. A. ; McMillan, C. E. ; Harrington, J. G. ; Goodwin, E. M. ; McGlashen, J. A. ; Kennedy, J. S.; Morash, A. V.; Munro, C.; Cox, G. F.; Thompson, F. W.; MicCurdy, J. F.

ADVANCED POLITICAL ECONOMY.
Class I-Schurman, G. W.; McKinnon, J. A.; Lewis, E. W.; Chapman, E .

## POLITICAL ECONOMY.

Class I-Hugh, D. D.; Jordan, E. Class $I I$-Munro, C.; Rattee, E. J.; Muir Ethel ; Fulton, Eben; Mackintosh; Campbell, D. F.é McNaughton, E.; Montgomery, Jno.; MacGlashen, Jno. Passed-Grierson, J. A.; Smith, E. B. ; Thompson, F. W.; Morash, A. J.; Goodwin, E. M.; Harrington, J. G.

## METAPHYSICS.

Class I-Hugh, D. D ; Macrae, A. O.; Mackintosh, D. C.; (Jordan, E. J.; Robinson, C. B.). Class II-McMillan; Lewis, E. N.; Moore, C. L; Fulton, Eben ; Munro, C. Passed-Muir, Ethel ; Smith, E. B.; MacLeod, F. J.; Fraser, S. A.; MacGlasten, J. A.; (McCurdy, J. F.; Maclean, J. B.;) Campbell, D. M.; Morash, A. V.

## ETHICS.

Class I-(Hugh, D. I).; Rattee, E. J.) ; Jordan, E. J. Class IILewis, E. N.; Cogswell, G. A.; Mackinnon, J. A.; Mackintosh, D. C.; Mil!ar, Geo.; Fisher, J. M.; Smith, E. B. Passed-(Fulton, Eben ; Grierson, Robert) ; Laird Alex.; Chapman, A. E.

## LOGIC AND PSYCHOLOGY.

Class I-Webster, K. G. T.; (Bakin, F. M.; Johnson, G. F.) ; (Harrington. Miss E. B.; Johnson, J. B.) ; Weston, R. A. Class II-Weston, Miss Clara P.; Arehibald, Miss S. E.; Logan, J. D.; McNeill, Rod.; Hill, A. R. Lear, J. A.; Douglas, E. A. Passed-(Macdonald, A. F.; Morrison, W. C.) ; Pelton, C. S.; (MacIntosh, John A.; Sutherland, J. A.) ; (Graham, R. H., Mahon, J. A.) ; Campbell, D. M.; MeIntosh, D. S.; Macdonald, A. J.; Campbell, R. S.; McKeen, Geo. W.; Fullerton, A.. Caldwell, Miss L. B. Passed in Psychology-Thompson, W. S.

## MATHEMATICS-

Second Year: Class $I$-Bakin, F.; Archibald, Miss S.; Webster, K.; Weston, R. A.; Weston, Miss C. P. Class $I I$-Johnson, J. B.; Hill, A. R Passed-Macdonald, A. F.; MacIntosh, D.; Johnson, G. F.; MeNeill. Rod.; Morrison, W. C.; Harrington, Miss E.; Macdonald, A. J.; (Douglas, E.; Graham, R.) ; Mackay, M. S.; Sutherland, J.; Mahon, J. A.; MacIntesh, J. A. Passed in Geometry-Caldwell, Miss L.; Logan, John D. Passed in T'rigonometry and Algebra-Campbell, R.; Mackenzie, A.

First Year: Class I-Grant, R. J.; (MacLean, C. A.; McKay, T. C.;) McDonald, Miss Ida ; Ross, George ; Kellogg, Miss May ; Logan,
J. W.; (O'Brien, R. F., Rankin, J.). Class II-McKry, D. G.; (Mitchell, G. F.; Jamieson, Miss Harriet ) Passed-Ross, Hedley ; (Finlayson, D.; Putnam, H.; Murray, Miss L. C.) ; (McArthur: Arthur, George) ; Martin, A.; Barnstead, A. S.; Annand, Ed.; Rovinson, D. M.; Kirk, J. H.; Keefler, R.; Fraser, J. G.; Fraser, J. M.: Forbes, Ed. Passed in Geometry-Cameron, D. A.; Keating, C. S.; Murray, R. H.

## JUNIOR PHYSICS.

Class I-Baxter, Agnes S. Class II-West, T. F.; Magee, W. H.; Robinson, C. B.; Stairs, H. B.; Moore, C. L.; Cox, G. H.; Maclean, J. B.) ; McMillan, F. A.: McMillan, C. E.; Grierson, J. A.; Oliver, A. C. L.; Goodwin, Emily M.; Muir, Ethel ; Kennedy, J. S.; MacGlashen, J. A.; Montgomery, J. Passed-Campbell, D. M.; Thompson, F. W.; (Howatt, C.; McNaughton, Eliz.) ; McCurdy, J. F.; Munro, C.; Macrae, A. O.; Thomson, J. W.; Morash, A. V.

## SENIOR PHYSICS.

Cluss II-Ruwlings, G. A. R. Passed-McKay, D. O.

## DYNAMICS.

Passed-Magee, W. H.; Baxter, Agnes S.

## INORCANIC CHEMISTRY

Class I-West, T. F.; MeLean, C. A.; Forbes, E. W.; Arthar, Geo.; McKav, T. C. Class $1 I$-Grant, Robt. J.; Stairs, H. B.; Rankin, Jas.; Kellogg, May ; Parker, Lewis W.; Robinson, D. M.; Barnstead, A. S.; Martin, Albert; Ross, George E. Pussed-Cameron, D. A.; McKay, D. G.; McDonald, Ida G.; Dodge, G. B; Ross, Hedley; Mitchell, G. F.; Logan, J. W.; Finlayson, Duncan ; McNutt, Elvin; Myers, Jas. S.; Tobin, W. R.; McArthur, S. J.; Hattie, J. H.; Keating, C. S.; Fraser, J. G.; Fraser, James M.; O'Brien, R. L.; Putnam. Harry ; Annand, Edward; Kirk, Joseph H.; Harrington, J. G.; Keefler, R. T.; Murray, L. C.; Jamieson, Harriet J.

## PRACTICAL CHEMISTRY - ADVANCED.

Class II-Campbell, D. F.

## PRACTICAL CHEMISTRY.

Class I-Magee, W. H.; Cox, George H.; McMillan, Charles E.; West, T. F. Class II-Oliver, A. C. L.; Burkitt, Robert ; Macrae, A. O.; Passed-Sutherland, J. A.

## ORGANIC CHEMISTRY.

Class I-Magee, W. H. Class II-Campbell, D. F.; Thomson, J. W.

BOTANY.
Class I-Macrae, A. O. Class II-Cox, George H.; McMillan. C. E ; Oliver, A. C. L.; Moore, C. L.; West, T. F.; Grierson, Robert : McKay, D. O. Passed-Arthur George: Thomson, J. W.: Cogswell, G. A. Fraser, James M.: Keating, Sedley C.

## FACULTY OF LAW.

SESSIONALEXAMINATIONS.

## CLASS LISTS.

(Containing the names arranged in the order of merit in the First and Second Class, and alphabetically iu the Pass List, of students who have passed in the various subjects.)

CONSTITUTIONAL HISTORY.
Class I-Adams: Fulton, W.: Dockrill: Stairs: Trueman ; Johnstone: Casey. Class II-Fraser, J. G.: Fraser, James: Sangster : Murray : Calder. Passed-Bill : Blackadar ; Corbett; Grierson: Montgomery: Smith
constitutional law.
Class I-Schurman: McNeil : Cogswell : Shaw: McKinnon: McDonald, Joseph. Class II-Wickwire: Kelly: Logan : No:ting. PussedCougdon: Howatt: McDonald, A. J.: Ruggles.

InTEERNATIONAL LAW.
Class I-Howay : Mellish: McBrice: Allison: Armstrong: Frame. Class II-Roberts: Oxley: Bowser; Sinclair: Cogswell; McPhee. Passed-Fairweather, F. L.: Hamilton: Huggins : Notting : White.

CONFLICT LAWS.
Class I-Robertson: Cahan: McDonald, Wm.; Paton: McNeil: Allison; Wickwire: McDonald, Joseph: Shaw. Class II-Notting: McDonald, Allan J. Passed-Congdon: Kelly : Logan.

## BILLS AND NOTES.

Class I-Howay: Mellish: Rohertson: McDonald, Wm.: McBride: Allison: Cahan: Roberts. Class $I T-$ Shaw; Logan: Hamilon : Frame: Paton: Stevens. Passed-Armstrong: Bowser: Cahalane: Casey : Cogswell: Davison : Fairweather, F. L.; Fairweather, S. L. Howatt ; Huggins: Kelly ; McDonald, A. J.; McPhee: Notting: Oxley : Ruggles: Sinclair : Wickwire.

## THIRD YEAR EQUITY.

Class I-Howay: McDonald, Wm.: Mellish: Roberts : Frame: Robertson. Class II-Cogswell: McBride: Fairweather : Hamilton : Notting. Passed-Armstrong: Bowser: Cahan: Huggins: Kelly : McPhee : Miller : Oxley : Sinclair: White.

INSURANCE.
Class I-(Howay: Robertson :) Mellish: MeDonald, William : McBride. Class II-Fairweather: Hamilton; Cogswell: Frame: Roberts: Cahan. Passed-Sinclair: McPhee: White : Notting: Miller : Bowser : Huggins : Oxley : Armstrong: Kelly.

## PARTNERSHIP.

Class I-Roberts: Howay : Mellish: Robertson: Allison : Frame. Class II-Cahan: Sinclair : Cogswell : McDonald, Joseph : McBride : Howatt : Fairweather, F. L.: Ruggles : McDonald, W.: Paton; Davison. Passed-Armstrong : Cahalane: Casey : Congdon : Fairweather, S. L.: Hamilton: Huggins: Kelly : LePage: Logan: Miller: McDonald, A. J.: McPhee: Notting: Oxley : Shaw : White: Wickwire.

## REAL PROPERTY.

Class I-Kelly: Paton: Dockrill: Smith: Casey: Doyle. Trueman. Class 1I-Calder: Johnstone: Blackadar: Mathers : Fulton, E. M.; Davison. Passed—Adams: Bill: Corbett: Crosby : Fraser : Fulton, W.: McDonald, L.: Murray : Sangster.

CRIMES.
Class I-Paton : Fulton, W.: Adams : Sangster : Davison : Dockrill, Schurman. Class II-Casey : Johnstone : Murray : Blackadar : Smith : Crosby. Passed-Bill: Calder: Corbett: Doyle: Fraser: Fulton, E. M.: Mathers : McDonald, L.: Trueman.

## CONTRACTS.

Class I-Schurman: McKenna: Adams: Dockrill: Johnstone: Thompson. Class II-Fulton, W.: Fulton, E. M.: Murray : McKinnon ; Trueman: Calder. Pussed-Bill: Blackadar: Casey: Corbett: Croshy: Doyle : Fraser: Kelly : Mathers : McDonald, L.: Sangster : Smith.
torts.
Class I-McDonald, W.: Robertson: Johnstone: Fulton, W.: Adams. Class II-Paton: Kelly: (Murray: Thompson: Trueman:) Dockrill : Fulton, E. M.: Fraser : Mathers : Blackadar : Casey. PassedBill : Ca Ider: Corbett : Davison : Doyle : McDonald, L. X.: Sangster ; Smith.

## SECOND YEAR EQUICY.

Class I-Cahan; Allison: Paton ; Ruggles. Class II-MeDonald,: Joseph: McDonald, A. J.: Kelly : Fairweather, S. L.: LePage: Cahalane, Passed-Congdon: Davison: Howatt: Logan: Wickwire.

## FACULTY OF MEDICINE.

PRIMARY M. D., C. M., EXAMINATIONS.
CLASS LISTS.
(Containing the names of students who have passed in the various subjects)
Physiology (including Histology).-Grant, William: Hamilton, Charles A.: Johnson, Isaac W.: Woodworth, Percy C.

Chemistry (ineluding Practical Chemistry).-Grant, William : Johnson, Isaac W.: McCharles, Rodk. W.: Wood worth, Percy C.: *Hamilton, Charles A.

Anatomy (including Practical Anatomy).-Grant, Wm.: Hamilton, Charles A.: Johnson, Isaac W.: Kent, Hedley Vicars - McCharles, Roderick W.: Pureell, $\dagger$ John M.

Materia Medica (including Therapeutics and Pharmacy).-Grant, William ; Hamilton, Charles A.: Johnson, Isaac W.: McCharles, Rodk. W.: Woodworth, Percy C.

Botany.-Chisholm, Alexander J.: Coady, Patrick: Dechman, Andrew A:: Densmore, Howard S.: Drysdale, George N.: Fairbanks, Harry G.: Irwin, Archer ; McDonald, John C.: McAulay, Murdoch W.: Meyer, Edward J.: Morrison, D. A.: Rice, Frank E.: Turnbull, Geo. D.

Practical Chemistry - Drysdale, George N.: Walsh, Thomas W. Surgery.-Kent, Hedley Vicars.
Clinical Surgery.-Kient, Hedley Vicars.
Medicine. - Kent, Hedley Vicars.
Clinical Medicine.-Kent, Hedley Vicars.
Obstetrics and Diseases of Women and Children.-Kent, Hedley Vicars.

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## GRADUATES OF THE UNIVERSITY.

N. B.-Degrees printed with the names have been obtained at other Universities.

Graduates are requested to notify the President of errors or omissions in the following list.
$\not{ }^{14}$ Adams, H. S., Jesuits' College, Montreal ..... B. A., 1884
${ }^{+1}$ Aiton, W., Sussex, N. B ..... B. A., 1885
Allan, Rev. John M., Edinburgh B. A., 1873 M. A., 1876
Allison, Edmund P., Halifax, N. S. ..... B. A., 1889
Allison, Matthew G., Windsor, N. S. ..... B. A., 1886
Annand, Rev. Joseph, New Hebrides ..... B. A., 1869 ; М. A., 1872
Archibald, Rev. F. W., M.A., B.D., Ph. D., (obit.) ..... B. A., 1877
Archibald, Rev. W. P., Carendish, P. E. I., B. A., 1873; M. A., 1878
Armstrong, E. H., Weymouth Bridge, N. S ..... LL. B., 1888
Armstrong, B. H., Halifax ..... Le. B., 1890
Bayne, Prof. H. A., Ph. D., F. R. S. C., (obit.) . ...... ..... B. A., 1869 ;
M. A., 1872.
${ }^{+2}$ Bell, F. H., Halifax ..... B. A., 1876
$+^{2}$ Bell, J. A., Riverside, Cal. ..... B. $\mathrm{A}_{\mathrm{a}}, 1883$
Bennett, A. W., Hopewell, N. B LL. B., 1885
Bethune, J. L., Baddeck, C. B. M. D., C. M., 1875
Blanchard, C. W., Truro ..... B. A., 1880
Boak, H. W. C., Halifax ..... Ll.B., 1885
Bowser, Wm. J., Kingston, N. B ..... Le. B., 1890
${ }^{12}$ Brown, Ernest N., Lower Newcastle, N. B ..... B. A., 1889
Bruce, Rev. W. T., M. D., Coldstream, Col. Co ..... B. A., 1872
Bryden, Rev. C. W., Selkirk ..... B. A., 1873
12Buchanan, James J., Sydney, C. B. B. A., 1887
Burgess, Rev. J. C., Danville, Col., U. S. A . ..... B. A., 1467
${ }^{14}$ Burkitt, Robert J., Athenry, Ireland . . B. A., 1889 ; M. A., 1890
Cahan, Charles H., M. P. P., Halifax. . B. A., 1886 ; LL. B., 1890
Cairns, Rev. J. A., M. A., Upper Musquodoboit. ..... B. A., 1878
Calder, Rev. John, Springville, N. S ..... B. A. 1886
Calkin, Wm. S., Truro ..... B. A., 1887
Cameron, A. G., Newton, Guysboro' ..... B. Sc., 1882
${ }^{10}$ Cameron, C. S., Halifax. ..... B. A., 1879
$\ddagger$ Cameron, Rev. J. H., Bass River, N. B ..... B. A., 1878

[^22]Cameron, William, Merigomish, N. S ..... B. A., 1873
Cameron, Rev. J. J., Shakespere, Ont., B. A., 1868 ; M. A., 1871
Campbell, Alexander J., Truro, N. S. B. A., 1886 ; ..... L.. B., 1889
Camphell, Alexander, Sydney, C. B ..... Lц. B., 1889
Campbell, D. A., Halifax, N. S. ..... C. M., 1874
Campbell, D. F., E. River, St. Mary's, N. S. ..... B. A., 1890
Campbell, George G., Truro ..... B.Sc., 1885
$a \S{ }^{14}$ Campbell, George M., Truro ..... B. A., 1882
Campbell, J. R., Jr., St. John, N. B ..... LL. B., 1888
Camphell, William R., Truro ..... B. A., 1887
Carmichael, J. M., New Glasgow, N. S. B. A., 1872
Carr, Rev. A. F., Alberton, P. E. I.... B. A., 1868 ; ..... M. A., 1971
Carson, Rev. G. S., Pictou, N. S ..... B. A., 1882
Carter, Titus James, Andover, N. B ..... L.. B., 1887
Carter, William D., Richibucto, N. B ..... LL. B., 1886
Chambers, F. B., Truro ..... B. A., 1879
Chambers, R. E., Truro ..... B. A., 1877
Chapman, A. E., Salisbury, N. B B. A., 1890
Chase, Rev. J. H., Onslow ..... M. A., 1869
Chisholm, Don., Antigonish C. M., 1874
Chisholm, Joseph A., Halifax ..... LL. B., 1886
Christie, Rev. T. M., (obit.) ..... B. A., 1868
Clarke, Daniel McD., West River, Pictou Co., N. S. ..... B. A., 1888
Cluney, Andrew, Halifax ..... LL. B., 1887
${ }^{10}$ Coffin, Rev. Fulton J., Trinidad ..... B. A., 1886
Coffin, F. S., M. A., Mt. Stewart, P. E. I. B. A., 1885
${ }^{* 9}$ Coffin, Victor E., Mt. Stewart, P. E. I. B. A., 1887
Cogswell, f. A., Port Williams, N. S. B. A., $18: 0$
Congdon, Fred. T., LL.B. (Toronto), Halifax, ad eundem gradum,Lц. B., 1889.
${ }^{2}$ Coops, Frank H., Milton, Queen's Co ..... B. A., 1887
Costley, Alfred, Halifax ..... B. A., 1881
Cox, Robinson, Stewiacke ..... M. D., C. M., 1875
Creelman, Rev. D. F., (obit.) B. A., 1873 ; M. A., 1880$\dagger^{14}$ Creelman, H. (r., B.Sc., Vans Dunlop Scholar, Edinburgh Univ.,B. A., 1881.
Creighton, J. G. A., Montreal ..... B. A., 1868
Creighton, H. S., Dartmouth ..... B. A., 1880
$\ddagger^{11}$ Creighton, James E., Instructor Cornell Univ., Ithaca, N. Y.,
B. A., 1887 .

[^23] Physics.
Crowe, Walter, Sydney, C. B. Lц. B., 1889
${ }^{10}$ Crowell, Rev. Edwin, Yarmouth ..... B. A., 1880
Cummings, Seldon W., B. A., Truro, N. S ..... Lı. B., 1889
Cruikshank, Rev. W., B. D., Montreal ..... B. A., 1872
Davidson, J. F., Pipos Altos, Grant Co., New Mexico ..... B. A. 1882
Davison, James McG., Halifax, N. S ..... B. A., 1889
DeWolf, G. H., Tintern, England M. D., C. M., 1872
Dickie, Alfred, Upper Stewiacke ..... B. A., 1879 ; M. A., 1883
Dickie, Henry, Upper Stewiacke ..... B. A., 1883
Dill, Rev. Edmund M., Parrsboro' ..... B. A., 1884
Doull, W. S., Halifax B. A., 1875 ..... Lı. B., 1985
Duff, Kenneth, Lunenburg ..... B. A., 1873
Emmerson, R. R. J., (obit.) ..... B. A., 1879
Fairweather, F. L., Maitland ..... L. B., 1890
Fisher, J. M., Lower Stewiacke ..... B. A., 1890
${ }^{12}$ Fitzpatrick, H. H. K., Spring Hill, N. S.. B.A., 1885 ; ..... M. A., 1888
Fitzpatrick, Rev. James, Saltsprings ..... B. A., 1875
Forbes, Antoinette, Little Harbor, Pictou Co ..... B. A., 1887
F'orrest, James, Halifax B. A., 1868 ; ..... M. A., 1872
Forsyth, George O., B. A., Port Hawkesbury, C. B ..... Lı. B., 1889
Frame, J. F., Maitland ..... Ľ.B., 1890
${ }^{11}$ Fraser, Alex., West River, Picton Co., N. S ..... B. A., 1889
Fraser, Hon. D. C., M. L. C., New Glasgow, N. S ... ..... B. A., 1872
Fraser, Rev. D. S., Springside, Col., U. S. A ..... B. A., 1874
Fraser, Donald, Pictou ..... B. A., 1877
Fraser, John K. G., Alberton, P. E. I. ..... B. A., 1889
$\ddagger$ Fraser, W. M.. Halifax B. Sc., 1880 ; ..... B. A., 1883
Fraser, W. R., Wright High Sch., Baltimore, Md. ..... B. A., 1882
Frazee, Victor G.. Academy, Pictou ..... B. A., 1889
Fulton, Eben, Middle Stewiacke ..... B. A., 1890
${ }^{* 9}$ Fulton, Edward, Lower Stewiacke, N. S ..... B. A., 1889
Fulton, G. H., M. D., C. M. B. A. 1876
Fulton, W. H., Halifax ..... B. A., 1888
${ }^{\text {\#9GGammell, I., Montreal }}$ ..... B. A., 1885
+George, Rev. J. L., M. A., Dartmouth ..... B. A., 1878
Grant, David K., Riverton, Pictou Co. ..... B. A., 1888
Grant, W. R., (obit.) B. A., 1877
Gregory, E. C., Antigonish ..... Le.B., 1888
Grierson, Robert, Halifax ..... B. A., 1890
Gunn, Rev. Adam, Kennetcook ..... B. A., 1872
Hamilton, C. F., B.A., North Sydney, C. B ..... Lu.B., 1890
Hamilton, H. H., Pictou ..... B. A., 1877

[^24]Hanright, Fred. W., B. A., Windsor Le. B., 1887
Harvey, McLeod, Newport, N. S ..... B. A., 1889
Henry, Jos. K., Shubenacadie, N. S. B. A., 1889
Henry, William A., Halifax, N. S L..B., 1886
${ }^{2}$ Herdman, Rev. J. C., B. D., Calgary, N. W. T B. A., 1874;M. A., 1887.
Herdman, W. C., Pictou B. A., 1874 ; М. A. 1881
Herdman, A. W., Pictou B. A., 1877
Hiltz, C. W., (obit.). ..... M. D., C. M., 1862
Howay, F. W., New Westminster, B. C Le. B., 1890
Huggins, W. H., St. John, N. B ..... Le. B., 1890 ..... Le. B., 1890
Hunter John, California. ..... B. A., 1873
lves, W. B, Pictou, N. S ..... Le.B., 1885
Jennison, Hedley V., New Glasgow, N. S. ..... Le.B., 1885
Johnson, George M., Upper Stewiacke, N. S ..... B. A., 1888
Jones, Frank, Digby B. A., 1884
Jones, H. T., Halifax, N. S ..... Ll.B., 1888
+Jordan, Rev. L. H., B. D., Montreal B. A., 1875 ; ..... M. A., 1878
Kent, H. V., Truro, N. S ..... M. D., C. M., 1890
Kinsman, F. S., M. D., Centreville ..... B. A., 1880
Knowles, J. H., New Bedford, Mass . ..... B. A., 1882
Laird, Alex., Sunbury, Ont. . B. A., 1890
${ }^{1}{ }^{1}$ Laird, A. G., Charlottetown, P. E. I. ..... B. A., 1889
Laird, G. A., Manitoba. ..... B. A., 1877
Landells, R., Cedar Hill, B. C ..... B. A., 1882
Lane, Charles W, Pictou ..... Ll. B., 1887
${ }^{12}$ Langille, R. M., Pictou. ..... M. А., 1888
LeNoir, M. U., Halifax, N. S. ..... Le.B., 1885
Lewis, Rev. Abner W., Chebogue, N. S. ..... B. A., 1886
${ }^{18}$ Lewis, E. W., Moncton, N. B ..... B. A., 1890
Linảsay, A. W. H., M. B., C. M., Halifax ..... B. A., 1870 ;
M. D., C. M., 1875.
Lippincott, Aubrey, M. D., Pittsburg, Pa. ..... B. A., 1867
Locke, R. T., Lockeport. ..... B. A., 1885
Logan, Rev. Richmond, Santa Monica, Cal., B. A., 1877 ; ..... M. A., 1880
Logan, Melville, Halifax ..... B. A., 1873
Lovett, Henry A., B. A., Kentville, N. S ..... Ľ. B., 1889
Lyons, William Alex., Halifax ..... Ľ. B., 1887
McBride, Rich., New Westminster, B. C. Le. B., 1890
McColl, A., New Glasgow, N. S ..... B.Sc., 1883
M.Cready, Charles A., Moncton, N. B ..... L.. B., 1888
McCully, Frank A., B. A., Sussex, N. B ..... Le. B., 1887
McCurdy, S. T., New Glusgow B. A., 1877

[^25]Maedonald, C. D., Pictou B. A., 1873
McDonald, Rev. Donald, B. D., Port Hastings, C. B ..... B. A., 1984
Macdonald, Ed. M., Pictou LL.B., 1887
$\not \ddagger^{14}$ Macdonald, J. A., Halifax B. A., 1883 ; LL. B., 1886
McDonald, J. H., (obit.) B. A., 1867 ; M. A., 1870
Macdonald, Robt. J., Hopewell, N. S. ..... B. A., 1889
Macdonald, William, Pictou B. A., 1888
McDonald, Wm., B. A., Pictou ..... L.. B., 1899
Macdonald, W. M., Halifax ..... B. A., 1888
McDowell, Isaac, (obit.) ..... B. A., 1876
McGregor, Rev. Daniel, Amherst ..... B. A., 1874
MacGregor, Prof. J. G., D.Sc., F. R. SS. E. \&C., Halifax. ..... B. A., 1871 ;
M. A., 1874.
${ }^{14}$ MacGregor, T. S., Little Bras d'Or, C. B. ..... B. A., 1882
McInnes, Hector, Halifax ..... Lц. B., 1888
Mackay, Adams A., B. A., Halifax, N. S ..... Lц. B., 1888
${ }^{14}$ MacKay, A. H., B.Sc., F. R. S. C., Pictou B. A., 1873
${ }^{16}$ McKay, D. O., Heathbell, Pictou Co ..... B. A. 1890
${ }^{\top}{ }^{15}$ Mackay, Ebenezer, High School, New Glasgow, N. S. . ..... B. A., 1886
${ }^{14}$ Mackay, H. M., Academy, Pictou, N. S ..... B. A., 1888
McKay, Rev. Kenneth, Richmond, N. B ..... B. A., 1868
$\not{ }^{15}$ Mackay, Neil F., Regina, Man B. A., 1886
McKeen, Rev. J. A., Orono, Ont ..... B. A., 1873
a§ ${ }^{14}$ Mackenzie, A. S., Scholar, Johns Hopkins Univ., Baltimore,B. A., 1885 .
McKenzie, Hugh, Truro B. A., 1872 ; М. А., 1875
Mackenzie, Prof. J. J., Ph. D., (obit.). .B. A., 1869 ; M. A., 1872
McKenzie, Rev. James, Pugwash. ..... B. A., 1878
McKenzie, Rev. J. W., East St. Peter's, P. E. I. . . . B. A., 1882
McKenzie, William J., West Bay, C. B. ..... B. A., 1888
MacKinnon, Don. Alex., Georgetown, P. E. I . ..... Lц. B., 1887
Mackinnon, J. A., Cow Bay, C. B. ..... B. A., 1890
Mackintosh, D. C., Springville, N. S. ..... B. A., 1890
$\ddagger$ McKittrick, Burgess, Sydney, C. B ..... B. A., 1877
McLatchy, Henry F., Hillsboro', N. B LL. B., 1887
${ }^{2}$ McLean, I. M., M. D ..... B. A., 1879
McLean, Rev. J. A.. Harvey, N. B ..... B. A., 1876
McLennan, Daniel, Port Hood, C. B. ..... LL. B., 1888
MeLennan, J. W., B. D., Sydney, C. B .....  A., 1887
MeLennan, S. J., Sydney, C. B B. A., 1888

[^26]McLeod, Rev. A. W., Ph.D., Vale,Pictou Co.B.A.,1875; M. A., 1878
${ }^{12}$ MacLeod, Ambrose W., Dunstaffnage, P. E. I. ....... B. A., 1888
McLeod, Rey. Don., Priceville, Ont.......... ......... B. A., 1874
${ }^{+5}$ MacLeod, F. J., Charlottetown Royalty, P. E. I . . . . . B. A., 1890
${ }^{* 9}$ MacLeod, George, Murray River, P. E. I............... B. A., 1888
McLeod, J. M., M. A., Valleyfield, P. E. I....... . . B. A., 1855
MacLeed, Rev. J. W., (obit.)........... B. A., 1876; M. A., 1880 $b+{ }^{1}$ McLeod, J. P., Principal High School, Victoria, B. C. B. A., 1884
$\S^{18}$ McLeod, Malcolm J., Belfast, P. E. I.......... .... . B. A., 1887
McMillan, Finlay, Sheet Harbor, N. S........ M. D., C. M., 1872
$\ddagger$ McMillan, Rev. G. W., Malpeque, P. E. I......... .. B. A., 1875
McNaughton, Rev. Samuel, Preston,G.B., B.A., 1867 ; M. A., 1870
McNeill, Albert H., Charlottetown, P. E. I ........... Le.B., 1889
${ }^{9}$ McNeill, Charlotte M., Charlottetown, P. E. I......... B. A., 1887
McPhee, D. L., Little Bras d’Or, C. B.................... Ll. B. . 1890
Macrae, Alex. W., st. John, N. B...................... B. A., 1886
McRae, William, (obit.) . . . .. .............. M. D., C. M., 1872
Magee, Edgar A., Vancouver, B. C.... ................ Ll. B., 1888
${ }^{14}$ Martin, K. J., Charlottetown, P. E. I ................. B. A., 1885
Mason, Rev. W. A., Georgetown, P. E. I............... B. A., 1877
Matheson, J. A., Halifax, N. S...................., .... . B. A., 1888
Mellish, H., Charlottetown, P. E. I..... B. A., 1882 ; LL. B., 1890
Millar, Rev. E. D., Lunenburg . .... . . ................ B. A., 1869
Millar, Geo., Tatamagouche ............ . . .......... B. A., 1890
Miller, J. J., Halifax . . . . . . . . . . . . . . . . . . . . . . . . . . . B. Sc., 1885
Milliken, Albert E., Moncton, N. B.................... . Ll. B., 1886
Muoney, P. C. C., Halifax . .................. ........ Ll. B., 1886
Moore, Edmund, Chatham ..... ............... M. I., C. M., 18,2
$\S^{18}$ Morrison, A. M., Dartmouth, N. S.................... B. A., 1888
Morrison, Aulay, New Westminster, B. C............. Ll. R., 1888
Morse, C., Ottawa . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Ll. B., 1885
Morton, Joseph H., M. D., Shelburne ................. . B. A., 1876
$\$^{13}$ Morton, Silvanus A., Milton, Queen's Co., N. S...... B. A., 1886
Muir, W. H., L. R. C. P. \& S. Edin., Truro. . M. D., C. M., 1875
Munro, Rev. J. R., Antigonish, N. S....... . . ...... B. A., 1876
Munro, G. W., 17-27 Vandewater St., New York...... B. A., 1878
Murray, J. S., North Sydney, C. B........ .......... B. A., 1877
a $\S^{14}$ Murray, Prof. D. A., Univ. of City of New York..... B. A., 1884

[^27]Newcombe, E. L., LL. B., Halifax...... B. A., 1878 ; M. A., 1881
${ }^{10}$ Neweombe, Margaret F., Ladies' College, Halifax . . . . . B. A., 1885
${ }^{14}$ Nicholson, Alfred, M. A., Southport, P. E. I ..... B. A., 1886
Notting, Thomas, Truro ..... LL. B., 1890
Oxley, C. H., B. A., Oxford, N. S ..... Ľ. B., 1890
${ }^{12}$ Oxley, J. M.. LL. B., Ottawa ..... B. A., 1874
Paton, Vincent J., Halifax, N. S. B. A., 1889
Patterson, G. G., New Glasgow,B.A.,1882; M.A.,1887; ..... LL.B., 1889
Pitblado, Colin ..... B. A., 1876
Pollok, A. W., (obit.) ..... B. A. 1872
Putnam, Homer, Lower Onslow, N. S. ..... B. A. 1889
Putnam, William G., Maitland ..... B. A., 1887
Rattee, E. J., Owen Sound ..... B. A., 1890
$\S^{18}$ Reid, A. G., Halifax ..... B. Sc., 1883
${ }^{11}$ Ritchie, Eliza, Ph.D., Asso.-Prof., Wellesley College. ..... B. L., 1887
Robert, Cassimir, Arichat, C. B ..... M. D., C. M., 1875
Roberts, J. A., Bridgewater ..... LL. B., 1890
Robertson, Henry McN., Barrington, N. S ..... Ľ. B., 1886
Robertson, T. R., Annapolis, N. S B. A., 1888 ; LL.B., 1890
${ }^{+1}$ Robinson, Alexander, Sussex, N. B ..... B. A., 1886
${ }^{14}$ Robinson, G. E., Charlottetown, P. E. I ..... B. A., 1886
Robinson, Rev. J. M., Moncton ..... B. A., 1873
Rogers, Rev. Anderson, Yarmouth ..... B. A., 1887
Rogers, Henry W., Amherst ..... Lц. B., 1887
Ross, Alexander, Dalhousie, N. B ..... B. A., 1867
Ross, Henry T., B. A., Bridgewater ..... Lц. B., 1889
Ross, Rev. William, Prince William, N. B. ..... B. A., 1873
${ }^{14}$ Rowlings, G. A. R., Musquodoboit Harbor ..... B. A., 1890
Russell, Rev. A. G., Oyster Bay, L. I., N. Y ..... B. A., 1871
Russell, Joseph A., Vancouver, B. C ..... LL. B., 1887
${ }^{17}$ Schurman, G. W., Freetown, P. E. I. ..... B. A., 1890
Scott, Rev. Ephraim, New Glasgow. B. A., 1872 ; 1 ..... М. A.; 1875
Scott, Rev. Prof. H. MeD., B. D., Chicago ..... B. A., 1870
Scott, J. McD., (obit.) ..... B. A., 1877
Sedgewick, J. A., Halifax B. A., 1881 ; Lц.B., ..... 1885
Sedgewick, Robert, Q.C., Dep. Min. of Justice, Ottawa. .....  A., 1867
${ }^{10}$ Shaw, Henry C., Stanhope, P. E. I ..... B. A., 1887
+1.Sl.aw, James C., Stanhope, I'. E. I ..... B. A., 1887
Shaw, Robert, (obit.) ..... B. A., 1866
Simpson, Rev. Isaac, New York State, U. S. A ..... B. A., 1868

[^28]Sinclair, J. A., St. John. N. B LL. B., 1890
Smith, Rev. D. H., Truro. B. A., 1867 ; M. A., 1871
Smith, Rev. Edwin, Stewiacke ..... B. A., 1867
Smith, E. B., Truro, N. S ..... B. A., 1890
Smith, H. McN., Halifax ..... B.Sc., 1884
${ }^{10}$ Smith, James F., B. D., RiverHebert, N. S.B.A.1886; M. A., 1890
Smithers, Allan, Halifax, N. S. ..... B. A., 1889
${ }^{10}$ Soloan, D. M., Pictou ..... B. A., 1888
Spencer, Rev. W. H., Montague, P. E. I. ..... B. A., 1881
Stevens, D. J., Halifax . ..... Ľ. B., 1890
Stewart, Alexander F., Pictou ..... B. A., 1887
${ }^{14}$ Stewart, Anne A., Pictou ..... B.Sc., 1886
${ }^{13}$ Stewart, Dugald, Upper Musquodoboit, N. S. ..... B. A., 1886
Stewart, F. I., Charlottetown, P. E. I ..... B. A., 1889
$\not{ }^{14}$ Stewart, J. McG., Pictou. ..... B. A., 1876
Stewart, Rev. Thomas, B. D., Sussex, N. B ..... B. A., 1882
Stramberg, H. M., New Westminster, B. C. ..... B. A., 1875
Sutherland, Rev. J. M., Virden, Man ..... B. A., 1869
Sutherland, Robert, (obit.) ..... C. M., 1872
$\ddagger^{9}$ Sutherland, J. S., St. James, Char. Co., N. B. ..... B. A., 1888
Taylor, W. B., (obit.) B. A., 1884
${ }^{10}$ Thompson, A. W., M. A., Durham, Pictou Co. ..... B. A., 1885
Thompson, Stanley R., Oxford, N. S Le. B., 1886
Thomson, A. E., Halifax. ..... B. A., 1880
Thomson, Walter K., Halifax ..... Ll. B., 1887
Thorburn, W. M., I. C. S., Madras Pres., India ..... B. A., 1870
Tobin, Thos. F., Halifax, N. S ..... Lı. B., 1889
Torey, E. J., Windsor. ..... B. A., 1882
Troop, Arthur G., A.B., Dartmouth, N. S Lu. B., 1886
Trueman, A. I., St. John, N. B .B. A., 1872 ; M. A., 1878
$b \dagger^{2}$ Trueman, Prof. J. S., Allegheny Coll., Meadville, Pa. ..... B. A., 1882
Tuffts, Rev. W. M., M. A., Bedeque, P. E. I ..... B. A., 1885
Turner, D. F. D., London, G. B ..... B. A., 1884
${ }^{+14}$ Waddell, Prof. John, Ph. D., D. Sc., Kingston, Ont. ..... B. A., 1877
Wallace, Rev. John, Gridley, Cal., U. S. A. ..... B. A., 1870
Wallace, W. B., Halifax ..... Ll.B., 1885
Walsh, Wm. W., Halifax ..... Lц. B., 1886
Wells, Wm. W., Point de Bute, N. B. ..... Lı. B., 1886
Whitford, Jos. A., Bridgewater, N. S. ..... Ľ. B., 1889
Whitman, Alfred, Halifax B.A., 1878 ; Ll.B., 1885

[^29]
## UNDERGRADUATES, 1889-90.

IN ARTS.<br>FOURTH YEAR.



THIRD YEAR.

 FIRST YEAR.

McLean, Charles Archibald..........Englishtown, C. B.
McNutt, Elvin . . . . . . . . . . . . . . . . . . Halifax, N. S.
Murray, Lucy Christine............. Studholm, N. B.
O'Brien, Robert F ................... Noel, Hants Co., N. S.
Putnam, Henry...................... . . Lower Onslow.
Rankin, James . . . . . . . . . . . . . . . . . . . New Westminster, B. C.
Robinson, David Magee ............ . Sussex, N. B.
Ross, George Edward . . . . . . . . . . . . . . Newport, Hants Co., N. S.

## IN LETTERS. <br> THIRD YEAR.

Muir, Ethel.......................... Annandale St., Halifax.
Montgomery, John ................. Dalhousie, N. B.
FIRSI YEAR.
Fraser, James Gordon
New Glasgow, N. S.

## IN SOIENCE.

FIRST YEAR.
Arthur, (yeorge . . . . . . . . . . . . . . . Alberton, P. E. I.
Keating, Sedley Charles............. Halifax, N. S.

## $I N$ LA. W. <br> THIRD YEAR.



## SECOND YEAR.

Cahalane, Thomas J Halifax.
Congdon, Frank Hinkle ..... Halifax.
Davidson, James MacGregor, B. A. . Halifax.
Fairweather, Stewart Lee St. John, N. B.
Howatt, Cornelius Alfred ..... Halifax.
LePage, Alfred Wilmot ..... Alma, N. B.
Logan, Hance James. Amherst.
McDonald, Allan Joseph, B. A...... Little Glace Bay, C. B.
McDonald, Joseph North Sydney.
McNeil, Alexander, B. A. ..... Port Hood.
Paton, Vincent J., B. A ..... Halifax.
Ruggles, Nepean Clarke ..... Halifax.
Shaw, Alfred Enos, B. A Avonport
Wickwire, Harry Ham, B. A Rothesay.
FIRST YEAR.
Adams, John Phillips Campbellton, N. B.
Blackadar, Hugh Saxon, B. A Halifax.
Bill, Edward Manning, Billtown, N. S.
Casey, Clarence Edward, B. A ..... Halifax.
Corbett, Jacob Edward Folly Village.
Crosby, Barnard Richards ..... Yarmouth.
Dockrill, George O'Gorman Mahon..New Westminster, B. C.
Doyle, Matthew Nicholas ..... Halifax.
Fraser, Alexander Hugh Ross. Port Hood, C. B.
Fulton, Edgar Melville. ..... Truro.
Fulton, Joseph Avard. Lower Stewiacke.
Fulton, Willard Hill, B. A ..... Halifax.
Johnstone, Lewis Martin Halifax.
Kelly, James King St. John, N. B.
Mathers, Frederick Francis ..... Halifax.
McDonald, Lauchlin Xavier ..... Sydney, C. B.
McKittrick, Burgess, B. A. Sydney, C. B.
Murray, Robert Gray St. John, N. B.
Sangster, Herbert Warren, B. A.... Sackville, N. B.
Smith, Bovyer Sidney ..... St. John, N. B.
Trueman, Walter Harley St. John, N. B.
IN MEDICINE.
FOURTH YEAR.
Kent, Hedley Vicars Truro.
THIRD YEAR
Hamilton, Charles Alfred Boylston.
Johnson, Isaac Wellwood Tatamagouche.Walsh, Thomas WilliamHalifax.
SECOND YEAR.
Fairbanks, Harry Gray Halifax.
Grant, William Boulardarie, C. B.
Irwin, Archer . Shelburne.
McCharles, Roderick William Middle River, C. B.
Turnbull, George Dykeman Digby.
Woodworth, Perey Churchill Kentville.
FIRST YEAR.
Chisholm, Alexander Joseph . . . . . . . St. Andrews,' N. B.
Coady, Patrick Margaree Forks, C. B.
Dechman, Andrew Arthur Sherbrooke.
Densmore, Howard S ..... Noel Shore.
Drysdale, George Nelson. ..... Halifax.
Kennedy, James Simon ..... Port Philip.
Meyer, Edward James ..... Halifax.
Morrison, Daniel Allan. Loch Lomond, C. B.
McAulay, Murdoch William. Grand River, C. B.
McDonald, John Clyde Riverside Corner.
McLeod, Thomas Chalmers Sydney, C. B.
Rice, Frank Ernest Digby.

## GENERAL STUDENTS, 1889-90.

## IN ARTS.


IN I, A W.
Armstrong, Joseph Hornsby ..... Halifax.
Calder, FredWest Biy, Inverness, C. B.
Cogswell, Edward B.... .... ..... Kentville.
Fraser, James Gordon New Glasgow.
Grierson, J. Arthur ..... Halifax.
Mackinnon, John d Cow Bay, C. B.
McKenna, Louis Augustus Dartmouth.
Miller, Oliver. Bridgetown.
Montgomery, John Dalhousie, N. B.
Schurman, George Wellingtou Freetown, P. E. I.Stairs, Henry Bertram.Thompson, William ErnestHalifax
Halifax.
White, Thomas W., B. A ..... Shelburne.
IN MEDICINE.
Buokley, Avery F Halifax.
Logan, Melville D., B. A ..... Halifax.
Puttner, Charles Hermana Halifax.
SUMMARY.
FACULTY OF ARTS.
Undergraduates ..... 97
General Students ..... 40
Students, Arts Faculty ..... 137
FACULTY OF LAW.
Undergraduates ..... 54
General Students ..... 13
Students, Law Faculty ..... 67
FACULTY OF MEDICINE.
Undergraduates ..... 22
General Students. ..... 3
Students, Medical Faculty ..... 25
Students, Faculties of Arts, Law and Medicine ..... 229
Deduct, studying in more than one Faculty. ..... 8
Total ..... 221

# THE ALUMNI ASSOCIATION. 

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(Incorporated 1876.)
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## 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 Colleges which have heen 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.

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C. H. Cahan, B. A., Ll.B., M. P. P.,
A. H. MacKay, B. A., B. Sc., W. D. Cameron, Howard Murray, M. A., .. Vice-Prosidents.

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Adams A. Mackay, B. A., Ll B.,
J. C. Shaw, B. A.,
W. B. Wallace, Ll. B., J. G. MacGregor, M. A., D.Sc.,
W. R. Campbell, B. A.,

## APPENDIX.

## EXAMINATION PAPERS, 1889-90.


#### Abstract

FACULTY OF ARTS. 

AND

JUNIOR MUNRO EXHIBITIONS AND BURSARIES. 

LATIN. Examiner ...................... John Johnson, M. A. (For Matriculation.) CaEsaR: Gallic War, Books II., III., or VIRGIL: Eneid, Book I.

Time: Thrie Hours. N. B.-Candidates will take Part 1., or Part II., and Part III. I. A. Translate:

Aduatuci, de quibus supra scripsimus, cum omnibus copiis auxilio Nerviis venirent, hac pugna nuntiata ex itinere domum reverterunt; cunctis oppidis castellisque desertis sua omnia in unum oppidum egregie natura munitum contulerunt. Quod cum ex omnibus in circuitu partibus altissimas rupes despectusque haberet, una ex parte leniter adclivis aditus in latitudinem non amplius ducentorum pedum relinquebatur; quem locum duplici altissimo muro munierant: tum magni ponderis saxa et praeacutas trabes in muro conlocarant. Ipsi erant ex Cimbris Teutonisque prognati, qui cum iter in provinciam nostram atque Italiam facerent, iis impedimentis, quae secum agere ac. portare non poterant, citra flumen Rhenum depositis custodiam ex suis ac praesidium sex milia hominum una reliquerunt. Hi post eorum


obitum multos annos a finitimis exagitati, cum alias bellum inferrent, alias inlatum defenderent, consensu eorum omnium pace facta hunc sibi domicilio locum delegerunt.

1. "Cum omnibus copis auxilio Nerviis venirent." Parse fully each word in this clause.
2. "Quod cum ex omnibus," et cetera. Parse quod. What is its force in this clause?
3. "Cum iter in provinciam nostram atque Italiam facerent." Write a geographical and historical note on this passage. What was the northern boundary of Italia then? What was the ancient name of the large river that flowed in the opposite direction to that of the Rhenus?
4. To whom or what do the pronouns "qui," "iis," "secum," "Hi," "eorum" (in "post eorum obitum"), "eorum omnium," "sibi," refer "
5. Write Caesar's name in full, and name each part of it. What is the date of his campaigns in Gallia? How and when did he die ?

## II.

B. Translate :

Haec dum Dardanio Aeneae miranda videntur,
Dum stupet obtutuque haeret defixus in uno;
Regina ad templum, forma pulcherrima Dido,
Incessit, magna iuvenum stipante caterva.
Qualis in Eurotaę ripis aut per inga Cynthi
Exercet Diana choros, quam mille secutae
Hine atque hinc glomerantur Oreades ; illa pharetram
Fert humero, gradiensque deas supereminet omnes ;
Latonae tacitum pertentant gaudia pectus- :
Talis erat Dido, talem se laeta ferebat
Per medios, instans operi regnisque futuris.
Tum foribus divae, media testudine templi,
Saepta armis, solioque alte subnixa, resedit.

1. "Dardanio Aeneae." Explain the epithet. What others are given to Aeneas in this Book?
2. "Qualis in Eurotae ripis aut per juga Cynthi." Write geographical notes.
3. "Tum foribus divae, media testudine templi." Explain testudine.
4. Give the rules for the cases of : "forma," "caterva," "qualis," "foribus."
5. Parse fully : " miranda," "ripis," "fert," "saepta," "armis."
6. In what year of Aeneas's wanderings does the Aeneid begin What was the cause of them? Whereabouts is the opening scene laid ? What is the closing scene of the First Book?

## III.

1. Decline throughout:

$$
\begin{aligned}
& \text { (a) "aditus," "pedum," "iter," "sibi," (Ext. A.) } \\
& \text { or (b)"templum," "deas," "pectus," "operi," (Ext. B.) }
\end{aligned}
$$

2. Compare: fortis, pulcherrimus, leniter, amplius, magnus, multus.
3. What is the Latin for: The wall was twenty feet high. A thousand men were killed. In the year 1776.
4. Write the nom, and gen. sing. (all genders) of: ille, alius, qui, aliquis, is.
5. Conjugate :

$$
\begin{aligned}
& \text { (a) "Scripsimus," " desertis," " conlocarant," " delegerunt," } \\
& \text { (Ext. A.) } \\
& \text { or (b) "videntur," " haeret," "e exercet," resedit," (Ext. B.) }
\end{aligned}
$$

6. Write the 3 rd siug. of the pres. and fut. indic. and of the pres. subj. (in the same voice as the given form) of : audio, moneor, lego, voco, patior.
7. Form the 1st sing. imperf. subj. (in the same voice as the given form) of : volo (I wish), feror, eo, sum, patior.
8. Translate into Latiu: On the iollowing day Caesar led out his troops from the camp. - He ordered the enemy to give him hostages. For nearly three hours the boys stayed in the same place and then returned to the city.--This ye ur the Senate will give more money for building bridges than it did last year.
(For Junior Munro Exhibitions and Bursaries.)
CaEsar: Gallic War, Books II., III. Virgil: Aneid, Воок I.

## A. Translate :

Time: Tirber Hours.
Publius Sextins Bacnlus, primi pili centurio, quem Nervico proelio compluribus confectum vulneribus diximus, et item G ius Volusenus, tribunus militum, vir et consilii magni et virtutis, ad Galbam adcurrunt atque unam esse spem salutis docent, si, eruptione facta, extremum auxilinm experirentur. Itaque couvocatis centurionibus celeriter milites certiores facit, paulisper intermitterent proelium ac tantummodo tela missa exciperent seque ex labore reficerent, post dato signo ex castris erumperent atque omnem spem salutis in virtute ponerent.

Quod iussi sunt, faciunt ac subito omnibus portis eruptione facta neque cognoscendi, quid fieret, neque sui colligendi hostibus facultatem relinquant. Ita commutata fortuna eos, qui in spem potiondorum castrorum venerant, undique circumventos interficiunt et ex hominum milibus amplius triginta, quem numerum barbarorum ad castra venisse constabat, plus tertia parte interfecta reliquos perterritos in fugam coniciunt ac ne in locis quidem superioribus consistere patiuntur.

1. "Itaque, convocatis centurionibus, celeriter milites certiores facit, paulisper internitterent proelium." Explain the connection of the clauses.
2. "Sui colligendi," "potiundorum castrorum." Note peculiarities of construction.
3. "Primi pili centurio," "tribunus militum," "convocatis centurionibus." Write explanations.
4. "Unam esse spem salutis docent, si, eruptione facta, extremum auxilium experirentur;" "seque ex labore reficerent." Curn these sentences into "direct speech."
5. Parse fully: "Experirentur," "cognoscendi," " fieret," "potiundorum."
6. Show by a map the position of towns, lakes and tivers men tioned in these books, and give both ancient and modern names of such as have them.

## II.

B. Translate :

Inde lupae fulvo nutricis tegmine laetus
Romulus excipiet gentem, et Mavortia condet
Moenia, Romanosque suo de nomine dicet.
His ego nec metas rerum nee tempora pono:
Imperium sine fine dedi. Quin aspera Iuno,
Quae mare nunc terrasque metu coelumque fatigat,
Consilia in melius referet, menmque fovebit
Romanos, reruin dominos gentemque togatam.
Sic placitum. Veniet lustris labentibus aetas,
Cum domus Assaraci Phthiam clarasque Mycenas
Servitio premet ac victis dominabitur Argis.
Nascetur pulchra Troianus origine Caesar,
Imperium Oceano, famam qui terminet astris, Iulius, a magno demissum nomen Inio:
Hunc tu olim coelo, spoliis Orientis onustum,
Accipies secura; vocabitur hic quoque votis.
Aspera tum positis mitescent secula bellis.

1. (a) " Inde lupae fulvo nutricis tegmine laetus."
(b) "Mavortia condet

> Moenia."
(c)
(d)

> "gentemque togatam."
> "vocabitur hic quoque votis."

Write explanatory notes.
2. "Cum domus Assarici Phthiam clarasque Mycenas Servitio promet, ac victis dominabitur Argis."
Write an historical note, explaining the use of the proper names.
3. "Nascetur pulchra Trojınus origine Caesar." Give Caesar's name in full and tell why it was given to him.
4. Parse fully: "tegmine," " moenia," "Argis," "origine," "spoliis."
5. The date of this hook is approximately fixed by a passage in it.

## III.

1. Mark the gender, and write the gen. and abl. sing. and the gen. pl . (if such are found) of: ordo, rotis, domus, artus, mella, ture, oreades.
2. Conjugate the verbs of which these are parts : opperiens, audet, passis, orsus, sonat, compostus.
3. Give five examples of reduplicated perfect tenses.
4. (a) Distinguish : pīlus, přlus ; pĭla, pīla; nītentes, nǐtentes; mālus, mălus ; sōlum, sŏlum; lăbor, lăbor ; orīs, orǐs ; sēdes, sědes; redūcis, redŭcis.
(b) When is final $e$ long.
5. Scan the last four lines of extract B.
6. Name the case or cases governed by the following words and give briefly the rule for each: uter, utor, utilis, servit, sub, rēfert, oblitus.
7. Translate into Latin : On the following day Caes ur started from his camp with all his forces and marched, with the utmost speed, for four days to the place where his scouts had told him the enemy had assembled. They however heard of his advance and at once determined to abandon the place and retire to a hill in the neighbourhood which they thought they could easily defend against the Romans. Accordingly they took up a position on the hill, and having strengthened it in front by a ditch and rampart, and on the flanks and rear by felled trees and brushwood, they confidently awaited the attack of our troops.

## GREEK.

Examiner . . . . . . . . . . . ...................... John Johnson, M. A.
(For Matriculation.)
XENOPHON : Anabasis, Book IV. or Symposiom.

Time : Taree Hours.
Note.-Candidates will take Part I. or Part II., and Part III.
I.
A. Translate .











2. Account for the cases of: $\sigma \phi \tilde{\omega} v, \dot{\alpha} \kappa \circ v \tau \iota \sigma \tau \grave{\alpha} \varsigma$, $\pi о \tau \alpha \mu \sigma \tilde{v}$ (in $\mu \grave{\eta} \pi \rho \circ \sigma \omega$ ઈغ̀ то̃̀ $\pi о \tau а \mu о \tilde{v} \pi \rho \circ \beta a i \nu \varepsilon \iota \nu)$, à $\rho \iota \sigma \tau o \varsigma$.
 use of the articles.

5. What is the date of this expedition? What was the cause of the retreat of the Greeks? Where was the Anabasis written?

## B. Translate :










 principal clanse in full.
2. Account for the cases of $\dot{\alpha} p \mu a \tau \eta \lambda a \tau o \bar{v} v a$ and $\sigma \tau \dot{\eta} \lambda \eta s$ and explain what is meant.
3. Tòv 'Aүaцé $\mu v o v a . ~ T e l l ~ w h a t ~ y o u ~ k n o w ~ a b o u t ~ h i m . ~$
4. Parse fully : $\dot{\varepsilon} \pi i \sigma \tau a \sigma a l$, oí $\theta a, ~ \varepsilon i \eta \eta, \dot{\varepsilon} v \hat{v} \gamma \kappa \eta$.
5. Where and when is the Symposium represented to have taken place?

## III.

1. Decline throughout: $\sigma \tau \rho a \tau \iota \omega ́ \tau \eta c, \dot{a} \sigma \pi i \varsigma, \dot{a} \lambda \lambda \not{\eta} \lambda o v s, \beta a \sigma i \lambda \varepsilon v ́ s, ~ Z \varepsilon v ́ s$.
2. Write in all genders the nom. and gen. sing. and nom. plural

3. Give forms in all degrees of comparison corresponding to:

4. Write in Greek words : Fifteen parasangs-six hundred shipsthree thousand soldiers-on the second day.
5. Decline in sing. and plur. $\sigma \phi \ddot{\omega} v, \dot{\varepsilon} a v \tau \varphi \bar{\varphi}$.
6. Give the 1st sing. imperf. indic. (with open and contracted vowels) of oiఓ $\dot{\varepsilon} \omega, \tau \mu \dot{x}(\omega, \dot{\varepsilon} \pi a \iota \nu \dot{\varepsilon}(\omega, \dot{\varepsilon} \chi(\omega$.
7. Form the principal parts of : $\gamma \rho a ́ \phi \omega, \pi o \varepsilon \in \dot{\varepsilon} \omega, \mu \hat{\varepsilon} \nu \omega, \varepsilon i \mu \dot{\prime}$.
 or, oiø $\theta a$, हiך, кá $\mu \psi a \iota$, (Ext. B.)
(For Junior Munro Exhibitions and Bursaries.)
XENOPHON : Anabasis, Book IV, Symposium.
Time: Three Hours.
I.
A. Translate :











8. ف́s $\delta \iota \beta \eta \sigma o \mu \varepsilon ́ v o v ̧ ̧--\dot{\omega} \varsigma ̧ \dot{\eta} \dot{\varepsilon} \mu \pi o \delta i \zeta \varepsilon \imath v$. Distinguish the use of $\dot{\omega}$ in these phrases.
 structions used in these clauses. How would they be expressed in Latin? Give the words actually used in Greek.
9. àvaotpé\}avtas $\dot{\varepsilon} \pi \grave{\imath} \delta \delta \rho v$. What is the opposite phrase?
10. Translate and write short notes on (a) à yeıv тov̀s $\lambda \dot{\chi} \chi o v s$ ópfiovs.

11. At the beginning of Book IV. Xenophon states briefly the contents of the preceding books. Describe the route of the "Ten Thousand" in this book.

## II.

## B. Translate :











1. Note the constructions used with verbs of "knowing" in this passage. Distinguish the precise meanings of all the verbs of "knowing."
 case of $\sigma \tau \dot{\eta} \lambda \eta$.
 and original meaning of ő ovo.
2. Note the use of the infinitives in the verses of the extract.
3. Parse fully : غं $\pi i \sigma \tau \alpha \sigma \alpha \iota, ~ к \lambda \iota \nu A \tilde{\eta} v a \iota, ~ \grave{\eta} \kappa$, $\tau о \tilde{\iota} \nu, \pi \iota \varepsilon \iota \sigma \nLeftarrow \varepsilon$.
4. How is the time fixed when the Symposium is supposed to be held? When was the work probably written? Some of the characters are found in another work of Xenophon's.

## III.


(b) in the pl.: $\pi$ oús, ovitos, òpos, $\gamma v v \eta$.
2. Compare the adverbs corresponding to these adjectives:

3. Decline $\mu \hat{\varepsilon} \gamma a s$ and $\pi o \lambda$ ís in the sing. masculine.
4. What pronouns form the nom. neuter sing. in -—?
5. Write the contracted forms in the sing. of the present subj. and opt. act. of 弓á $\omega$.
6. Form the perf. intin. act. and pass. of: $\lambda \varepsilon i \pi \omega, \dot{\varepsilon} \pi a \omega v \varepsilon ́ \omega$, ópá $\omega$, бvбтре́фต, $\delta i \delta \omega \mu$.
7. Translate into Greek: At daybreak the generals resolved to march on, taking with them the most powerful baggage animals and leaving the rest behind. After marching all day, towards evening they arrived at a village wherein they found all sorts of provisions, wine, bread, fodder, wheat and barley. And Xenophon bade the head-man of the village be of good cheer, telling him that he would not deprive him of his children. So that night all the soldiers slept in the midst of plenty. On the following day, continuing their march, they reached a river about 300 feet wide, which it was difficult to cross.

FRENCH.


#### Abstract

Examiner . . . . . . . . . . . . . . . . . . . . . . . . J. Liechti, M. A.


## (For Matriculation.)

Time: Three Hours.
I. Translate : Charles XII.-Un jour, au mois de novembre, la même année de la mort de son père, Charles XII. venait de faire la revue de plusieurs régiments; le conseiller d'Etat Piper était auprès de lui: le roi paraissait abîmé dans une réverie profonde. "Puis-je prendre la liberté, lui dit Piper, de demander à votre majesté à quoi elle songe si sérieusement? Je songe, répondit le prince, que je me sens digne de commander à ces braves gens; et je vondrais que ni eux ni moi ne reçussions l'ordre d'une femme." Piper saisit dans le moment l'occasion de faire une grande fortune. Il n'avait pas assez de crédit pour oser se charger lui-même de l'entreprise dangereuse d'ôter la régence à la reine, et d'avancer la majorité du roi ; il proposa cette négociation au comte Axel Sparre, homme ardent, et qui cherchait à se donner de la considération : il le flatta de la confiance du roi. Sparre le crut, se chargea de tont, et ne travailla que pour Piper.

1. Parse and give the principal parts of the following verbs :venait, était, songe, répondit, sens, voudrais, reçusstons, avait, se chargea.
2. Charles XII. venait de faire la revue de plusieurs regiments. Write this sentence in the negat. interrog. form. Write down the principal negations, and translate : We have no bonks. Nothing has happened. Not them (m.) No man. Not one man.
3. A ces braves gens. Parse ces, and gives its corresp. pronoun. How would the substitution of ses for ces affect the meaning of the clause? Write the feminine of doux, joli, pauvre, pareil, frazs, beau, public, malin; and the masculine of: chère, neuve, vieille, protectrice, vengeresse, aimable.
4. Write in French : 75, 99, $\frac{\pi}{2}, \frac{3}{4}, \frac{\pi}{10}, 300$. What time is it? It is 12 o clock-half-past one- 10 minutes to $40^{\circ} \mathrm{cl}$. The 19 th century.
5. Que je me sens. Illustrate the use of que: (1) as a relative pron. ; (2) as an interrog. pron. ; (3) as an adv. of quantity. Can you tell the difference between : sens, sans, sang and s'c\%. Write down the present indicative of : se chargea.

Charles XII.--Il était à la chasse aux ours quand il reçut la nouvelle de l'irruption des Saxons en Livonie: il faisait cette chasse d'une manière aussi nouvelle que dangerense; on n'atait d'autres armes que des bâtons fourchus derrière un filet tendu à des arbres: un ours d'une grandeur démesurée vint droit an roi, qui le terrassa, après une longue lutte, à l'aide du filet et de son bâton. Il faut avouer qu'en considérant de telles aventures, la force prodigieuse du roi Auguste et les voyages du czar, on croirait être au temps des Hercule et des Thésée.

Il partit pour sa première campagne le smai, nouveau style, de l'année 1700. Il quitta Stockholm, où il ne revint jamais. Une foule innombrable de peuple l'accompagna jusqu'au port de Carelescroon, en faisant des voeux pour lui, en versant des larmes, et en l'admirant. Avant de sortir de Suède it établit â Stockholm un conseil de défense, composé de plusieurs sénateurs.

1. D'une manière aussi nouvelle que dangerruse. Illustrate by short exs. the various forms of comparison (inferiority and superiority), and write down the comparative and superlative of bon, bien, mauvais, beaucoup, peu. By what words do you express the absolute superlative very; write a short ex. in illustration.
2. On n'avait ... que desbatons. Mention the word analogous to ne...que. Explain why $d^{\prime}$ is used in one part of this clause, and des in the other, the two words representing the same parts of speech. Show, giving exs., that some may be translated by: de l', en, and quelques. Write down the subjunctive present of avait.
3. Son baton. Parse son; write its fem., sing. and plural, and give its corresponding pronoun. Does son retain its form in the sentence: His ambition is great; why? Translate: His father and her's. Her brother and sister. Its moments. Her Majesty the Queen of England. His Majesty the Emperor of Germany.
4. Il partit . . . campagne. When are cardinal numbers substituted for ordinals? give two examples. What other meaning does campagne admit of ? Turn into French: I (have) spent (passer) several weeks in the country. Nova Scotia is my home. Italy is a fine country. This young man is 19 years old. To-day is the 16 th of Sept., 1889 (letters).

## GERMAN.

Examiner.................................. Liechti, M. A.

## (For Matriculation.)

Time: Threb Hours.
I. Translate:-Einer oder der Andere.-Zur Zeit Heinrich's IV., Königs von Frankreich, ritt einmal ein Bäuerlein von seinem Dorfe nach Paris. Nicht mehr weit von der Stadt begegnete er einem stattlichen Reiter. Es war der König ; sein Cefolge war absichlich in einiger Entfernung geblieben. "Woher des Wegs, mein Freund? Habt ihr Geschäfte in Paris?" "Ja," anwortete der Baner, "auch möchte ich gern einmal unsern guten Köng sehen, der sein Volk so zärtlich liebt." Der König lächelte und sagte: "Dazu kann euch Rath werden." "Aber wenn ich nur wiisste, welcher es ist unter den vielen Höflingen, von denen er umgeben sein wird. Das will ich euch sagen. Ihr dürft nur Achtung geben, welcher den Hut auf dem Kopfe behalten wird, wann alle Andern sich ehrerbietig werden entblösst haben."

1. Write down the Genitive sing., and the Nominative plaral of: Zeit, Bäuerlein, Stadt, König, Entfernung, Volk, Höfling, Hut.
2. Ein Büuerlein von seinem Dorfe. Point out the means used in determining the gender of nouns; prefix the definite article to the following nouns :- Brü̈derchen, F'reundschaft, Palast, Büchlein, Jüngling, Schönheit; Irrthum ; give the meaning of each of these words.
3. Begegnete er einem stattlichen Reiter. Decline in the four cases singular and plural, (using the definite article in the latter); einem stattlichen Reiter.
4. Determine the case or cases, and, if possible, the gender of the following words, piving their English equivalents: das, meinen, solche, der, unserem, schünes, grosse, besten Freundes, meiner ältesten Tochter, treuen Freunden. Translate into German: (of) this good book; (to) my dear brother ; my mother's sister; (to those poor people (Leuten).
II. Translate :-Der Wanderer und die Quelle. Ein Wanderer kamim heissesten Sommer zu einer Quelle. Er war stark und lange gegangen; Schweiss stand auf seiner Stirne und seine Zunge war vom Durste fast vertrocknet. Da sah er dies silberhelle Wasser, glaubte, hier neue Kräfte zu sammeln und trank mit gierigen Zügen. Aber die schneidende, zu schnell abwechselnde Kälte wirkte so schädlich auf ihn, 才ass er zu Boden sank. "Ach, schändliches Gift!" rief er. "Wer hätte unter einem so reizenden Anschein solch eine Bosheit vermuthet?" "Ich ein Gift?" sprach die Quelle. "Wahrlich, du verlenmdest mich, Nur Uebermaass und Unvorsichtigkeit von deiner Seite machen dir den Genuss schädlich.
5. Parse the following words : Im, heissesten, kam, er, war, schnell, dass, hätte.
6. Mention the class of words that are declined like the indefinite. article, and write down those that adopt the terminations of the definite article. Turn into German: Which book have you? The children have no bread. I have written (geschrieben) to your father. The child of their friend (fem.)
7. Illustrate the various forms used in addressing persons in ferman. How do you distinguish between: Sie and sie; $1 h r$ and ihr?
8. Conjugate the present and the imperfect Indicative of haben and sein.

## ENGLISH.

Exuminer . . . . . . . . . ....... Archd. MacMechan, Ph. D.
Time: Tireee Hours.
(For Matriculation, the first five questions. For Bursaries and Exhibitions, the entire paper.)

1. Write and punctuate the passage dictated.
2. Give a general analysis of the passage dictated as far as "honour."
3. Parse in the passage his, bestowing, none, what.
4. Give in your own words,
(a) The plot of your favourite novel ; or
(b) An account of your summer vacation ; or
(c) A general description of the city of Halifax.
5. Discuss the syntax of the following sentences, correcting where necessary :
(a) You little creatures should never wear those sort of clothes.
(b) Where was you going last night when Jim seen you?
(c) Where's them things of mine?
(d) I haven't got no father, and I haven't got no ma.
(e) You had'nt ought to say that.
6. Reproduce in simple prose the substance of the following:

## BEGGARS.

She had a tall man's height, or more; No bonnet screened her from the heat; A long drab-coloured cloak she wore, A mantle reaching to her feet; What other dress she had I could not know ;
Only she wore a cap that was as white as snow.
In all my walks through field or town, Such figure I had never seen ; Her face was of Egyptian brown : Fit person was she for a queen, To head those ancient Amazonian files:
Or ruling bandit's wife, among the Grecian isles.
Before me begging did she stand, Pouring out sorrows like a sea : Grief after grief.-
7. Combine each of the following groups into one complex sentence:
(a) Men go to sea; they do not know the unhappiness of of that way of life; they come to know it; they cannot escape from it; it is then too late to choose another profession.
(b) The passions are the greatest movers of human actions; they are moved with impurities; it is necessary that they should be purged or refined; this is done by means of pity and terror.
(c) They have drunk wine; every man feels himself happy; he loses that modesty; he grows impudent and vociferous; he is not improved; he is only not sensible of his defects.
8. Explain all the uses of the word that. Illustrate your answer by examples.
9. State as fully as possible what remnants of declension are still to be found in modern English ?

## HISTORY AND GEOGRAPHY.

Examiner. . . ........................... President Forrest.

Time: Three Hours.

## ENGLISH HISTORY.

1. What changes did the Sason Conquest introduce into Britain ?
2. Gire a brief account of the war between England and Scotland in the reign of Stephen.
3. What claim had Henry II to the throne of England? What abuses did he seek to reform on his accession?
4. Write a short article on the "Constitutions of Clarendon."
5. Give the leading events of the reign of James II.
6. What were the chief provisions of the Bill of Rights.
7. What powers were arrayed against England during the later years of the American Revolutionary War? By what treaty was peace restored? What were its provisions?
8. When and for what reason were the crowns of England and Hanover separated?
9. "In 1858 the Palmerston Government introduced a Conspiracy Bill." What led to it? What was its aim? What were the results?

## CANADIAN FISTORY.

1 After Columbus discovered Ainerica, Henry VII. of England and Frances I. of France, fitted out expeditions. Who commanded them ? Give a brief account of their voyages.

The Indians of Canada and the neighbonring territory belonged to three principal divisions or nations." Give a brief account, showing the territory they occupied
3. When was Quebec first taken by the English? By what treaty was it restored ? When did it finally become a British possession?
4. Write a short account of the company of One Hundred Associates.
5. Write a short article on United Empire Loyalists.
6. Write a short article on the Rebellion of 1837 , tracing the causes which led to it.
7. When and on what terms did the Dominion obtain possession of the North West Territories.

## GEOGRAPHY.

1. In what zones are the following countries: Scotland, Denmark, New Zealand, Madagascar, Japan, Peru, California, Bermuda, Azores, Egypt.
2. Give the coast waters oi Europe: principal rivers of South America and lakes of North America.
3. Bound the German Empire, Egypt, Persia, Albert Co., N. B. Queens Co., N. S., Georgia.
4. What are the chief exports of Nova Scotia, Prince Edward Island, Egypt, Jamaica, Peru, Ceylon.
5. Locate Yokohama, Shanghai, Carnarvon, Antwerp, pisa, Delhi, Delagoa Bay ; Madeira, Trebizond, Massowah.
6. What is the population of Germany Empire, France, Belgium, Holland, Denmark, Japan, Manitoba, P. E. Island Quebee, British, Columbia ?

## MATHEMATICS.

Examiner.................................. C. Macdonald, M. A.
(For Matriculation.)
GEOMETRY AND ALGEBRA.
Thar: Three Hours.
N. B. -Three of the first four questions. The sixth supersedes the fifth.

1. If one side of a triangle be greater than another, the angle opposite the former shall be greater than that opposite the latter.
2. If a straight line falling on two others, make the alternate angles equal, these two lines shall be parallel.
3. If the extremities of two equal and parallel lines be joined by lines drawn towards the same parts, these lines shall be equal and parallel ; but if they are joined towards opposite parts, the joining lines shall bisect each other.
4. Construct a parallelogram equal to a given triangle, and having one of its angles equal to a given angle.
5. If a straight line be divided into two parts, the rectangle of the two parts, together with the square of one of them, is equal to the rectangle of the whole line and the part whose square is just taken.
6. In any triangle the square of the side opposite an acute angle is less than the sum of the squares of the sides containing it by twice a certain rectangle. Give the full enunciation of the proposition, and prove it for one case, the triangle not being right-angled.
7. Express $1 \frac{1}{2} \mathrm{ft}$. as the Vuigay, and, also, as the Decimal fraction, of a mile.
8. Multiply 1.035 by 000095 : also, divide the latter by the former, giving the Quotient correct as far as four places from the first digit.
9. Simplify the expression,

$$
x-\{2 x-(x-3(2 x+4))-3(2 x+y)\}:
$$

and, if $x=8, y=6, z=4$; find the numerical value of

$$
\frac{\left(\sqrt{x^{2}+y^{2}}+z\right)\left(\sqrt{x^{2}+y^{2}}-z\right)}{(2 y-z)^{8} \sqrt{(y+2) x}}
$$

10. Solve the equation,

$$
5 x-\frac{2 x-1}{3}+1=3 x+\frac{x+2}{2}+7
$$

Also, solve the simultaneous equations,

$$
\begin{aligned}
& 5 x=146-11 y, \\
& 5 y=110-11 x .
\end{aligned}
$$

11. Express, in briefest form,

$$
3 \sqrt{8}+7 \sqrt{288}-9 \sqrt{98}+4 \sqrt{\frac{81}{2}}
$$

And multiply

$$
3 \sqrt{5}+2 \sqrt{3} \text { by } 4 \sqrt{3}-3 \sqrt{5}
$$

12. By inspection, $x^{3}-27 y^{3}$ is divisible by $x-3 y$. Write the $6 n 4 n$
quotient. Also, decompose $x-y$ into factors, as far as you can. (Irrational factors are not to be considered).
(For Junior Munro Exhibitions and Bursaries.)

## GEOMETRY.

Time: Thref Hours.

1. Write the axiom you employ with respect to parallel lines: and prove that, if a straight line fall on two parallels, three main properties of angles follow.
2. Parallelograms on equal bases and between the same parallels are equal in area: prove this.
3. "If a straight line be divided into two parts, the squares of the whole line and one of the parts are together equal," \&c. : complete the enunciation, and prove the proposition.
4. If an isosceles triangle have its vertical angle equal to $\frac{3}{2}$ of a right angle, prove that its Base is equal to $(2+\sqrt{2})^{\frac{1}{2}}$ times one of the equal sides.
5. How would you shew that a circle cannot cut a straight line in more points than two?
6. On a straight line describe a segment of a circle containing an angle equal to a given angle. (One figure).
7. Fron a given point, P , straight lines, $\mathrm{PB}, \mathrm{PC}, \mathrm{PD}$, \&c., are drawn to meet a given line, X , in $\mathrm{B}, \mathrm{C}, \mathrm{D}, \& \mathrm{~B}_{\mathrm{c}}$; and on these lines as diameters circles are described. Shew that, besides $P$, the circles have another point in common.
8. If two tangents be drawn to a circle and, also, the chord of contact, shew that the middle point of the included are is equidistant from the three sides of the triangle thus formed.
9. Two equal circles intersect in the points, $P$ and $Q$, and any line drawn through $P$ cuts their circumferences in $M$ and $N$. Shew that the circle described on $P Q$ as diameter bisects $M N$.
10. Deduce the 47 th Proposition of Euclid's Book I. from the property of the circle that, "if from any point a tangent and a secant be drawn to a circle, the rectangle contained by the secant and its external segment is equal to the square of the tangent."

## ARITHMETIC AND ALGEBRA.

## Time : Three Hours.

1. Shew that the Discount of Commerce is greater than the true Discount, Mathematically considered : and find the difference between the two in the case of $\$ 100,000$ worth of Bills, due 6 months hence, discounted at the rate of 6 per cent.
2. If the fraction, $\frac{m}{n}$, in lowest terms, be reduced to a decimal, and be also interminate, shew that the length of the period is the same, whatever $m$ may be.
3. Find, by factoring, the G. C. M. of

$$
3 x^{3}-3 x^{2} y+x y^{2}-y^{3}, \text { and } 4 x^{2} y-5 x y^{2}+y^{3}
$$

and, by the method of continuous division or subtraction, the G. C. M of

$$
12 x^{3}+13 x^{2}+6 x+1, \text { and } 16 x^{3}+16 x^{2}+7 x+1
$$

4. Multiply

$$
a^{\frac{3}{4}}+a^{\frac{8}{8}} b^{\frac{3}{8}}+b^{\frac{3}{4}} \text { by } a^{\frac{3}{4}}-a^{\frac{3}{8}} b^{\frac{8}{8}}+b^{\frac{3}{4}}
$$

and write the result, not with fractional exponents, but, in radical form,
Also, find the value, in simplest surd form, of

$$
\frac{3 \sqrt{2}}{\sqrt{3}+\sqrt{6}}-\frac{4 \sqrt{3}}{\sqrt{6}+\sqrt{2}}-\frac{3 \sqrt{6}}{\sqrt{2}+\sqrt{3}}
$$

5. Find the square root of

$$
a^{\frac{2}{3}}-4 a^{\frac{5}{6}}+4 a+2 a^{\frac{7}{6}}-4 a^{\frac{4}{3}}+a^{\frac{5}{3}}
$$

6. If $x y=\sqrt{a}, y z=\sqrt{b,} z x=\sqrt{c}$ and $(x+y+z)^{-1}=(a b c)^{\frac{1}{4}}$, prove $(a b)^{\frac{1}{2}}+(b c)^{\frac{1}{2}}+(c a)^{\frac{1}{2}}=1$.
7. If $x^{3}+p x^{2}+q x+r$ is measured exactly by $x^{2}+a x+b$, find the two values of $r$ in terms of the other coefficients, and prove that

$$
a^{2}-a p-b+q=0
$$

8. 

$$
\text { If } \begin{aligned}
a x+b y+c z & =0 \\
a_{1} x+b_{1} y+c_{1} z & =0 \\
a_{11} x+b_{11} y+c_{11} z & =0
\end{aligned}
$$

shew that, definite values for $x, y$, and $z$, cannot be found ; and formulate in words the result of your investigation.
9. The difference between a number and its reciprocal is $p$; and the difference between their squares is $q$. Prove (Quadratic equations not being admitted) that

$$
4 p^{2}=\left(q^{2}+p^{2}\right)\left(q^{2}-p^{2}\right)
$$

10. Solve the equation

$$
\sqrt{x+a}+\sqrt{x-a}=\frac{b}{\sqrt{x+a}}
$$

## SENIOR MUNRO EXHIBITIONS AND BURSARIES.

## A.-CLASSICS.

## LATIN.

Examiner John Johnson, M. A.

HORACE : Epodes. PLINY: Selected Letters.
A. Translate :

Time: Three Hours.
Altera iam teritur bellis civilibus aetas, Suis et ipsa Roma viribus ruit:
Quam neque finitimi valuerunt perdere Marsi Minacis aut Etrusca Porsenae manus,
Ameula nee virtus Capuae, nee Spartacus acer Novisque rebus infidelis Allobrox,
Nec fera caerulea domuit Germania pube Parentibusque abominatus Hannibal;
Impia perdemus devoti sanguinis aetas, Ferisque rursus oceupabitur solum!
Barbarus heu cineres insistet victor, et Urbem Eques sonante verberabit ungula,
Quaeque carent ventis et solibus ossa Quirini,Nefas videri - dissipabit insolens !
Forte, quid expediat, communiter aut melior pars Malis carere quaeritis laboribus;
Nulla sit hac potior sententia: Phocaeorum Velut profugit exsecrata civitas
Agros atque Lares patrios habitandaque fana Apris reliquit et rapacibus lupis,
Ire, pedes quocunque ferent, quocunque per undas Nutus vocabit ant protervus Africus.
Sic placet? an melius quis habet suadere? - Secunda Ratem occupare quid moramur alite?

1. "Altera iam teritur bellis civilibus aetas." Explain altera.
2. (a)
" Nec Spartacus acer
Nee fera caerulea domuit Germania pube."
(b) "Phocaeorum

Velut profugit exsecrata civitas."
Write historical notes.
3. (a) "Ire pedes quocunque ferent."
(b) "An melius quis habet suadere."

Explain the syntax of ire, and of the sentence, an melius, \&c.
4. Some words in the extract (A) are used with an uncommon meaning.
5. (a) In what metre are the even lines of this Epode written? In what is the metre peculiar?
(b) Scan these lines and name the metre of each:

Ast ego vicissim risero -
Invicte, mortalis dea nate puer Thetide -
Scribere versiculos amore percussum gravi.
6. The date of Horace's birth is fixed by a line in the Epodes.

## II

## B. Translate:

Sed haec felicitas terrae inbecillis cultoribus fatigatur. Nam possessor prior saepius vendidit pignora, et dum reliqua colonorum minuit ad tempus, vires in posterum exhausit, quarum defectione rursus reliqua creverunt. Sunt ergo instruendi eo pluris, quod frugi mancipiis: nam nec ipse usquam vinctos habeo nec ibi quisquam. Superest ut scias quanti videantur posse emi : sestertio tricies, non quia non aliquando quinquagies fuerint, verum et hac paenuria colonorum et communi temporis iniquitate ut reditus agrorum sic etiam pretium retro abiit. Quaeris an hoc ipsum tricies facile colligere possimus ? sum quidem prope totus in praediis, aliquid tamen fenero, nec molestum erit mutuari ; accipiam a socru, cuius arca non secus ac mea utor. Proinde hoc te non moveat, si cetera non refragantur, quae velim quam diligentissime examines. Nam cum in omnibus rebus tum in disponendis facultatibus plurimum tibi et usus et providentiae superest. Vale.

1. "Sunt ergo instruendi eo pluris, quod frugi mancripiis." Explain the meaning and syntax.
2. "Sestertio tricies." Give the origin of this phrase and the value approximately in our currency.
3. Give the derivation and meaning of the following words : praevaricatio, luscinia, topiarius, euripus, clepsydra, pugillares, Laudiceni, circulator.
4. Write explanatory notes on these sentences:
(a) In media basilica tam palam sportulae quam in triclinio dantur.
(b) Assem para et accipe auream fabulam.
(c) Habes climactericum tempus, sed evades.
(d) Quid si (te) haeredem instituisset ex asse.
5. Translate the following sentences and explain the syntax where necessary :
(a) Certatim ergo tibi gratias agimus, ego quod illam mihi, illa quod me sibi dederis.
(b) Praesertim cum me necessitas locandorum praediorum plures annos ordinatura detineat.
6. Pliny gives a list of his uncle's writings.
C. Translate into Latin : While the Greeks were preparing food Mithridates came up to them with about thirty horsemen, and calling for the generals, addressed them to the following effect: That he had always been loyal to Cyrus, as they knew well themselves, and now wished well to them; that he also was living there in the greatest fear. If then he saw that they were planning for their own safety, he would come to them and would bring with him all his men. Let them inform him therefore what they had in mind, because he was a friend to them and wished to march forward with them. After thinking over the proposal, the generals decided to answer as follows : that they were going to set out for home, and if any allowed them to advance, they would in no way harm them, but if any attacked them, they would cut their way through with the sword.

## GREEK.



## HERODOTUS: Book II.

Time: Three Hours.
I.
A. Translate.














1. T $\omega \nu ~ \delta \grave{\varepsilon} \dot{a} \lambda \lambda \omega \nu \beta a \sigma t \lambda \hat{\varepsilon} \omega \nu$ od $\gamma \grave{a} \rho$ हैं $\lambda \varepsilon \gamma o v$ ovideuiav к. т. $\lambda$. What would be the regular construction of this clause?
2. (a.) кar' où $\delta$ ह̀v عivvaı $\lambda a \mu \pi \rho o ́ t \eta \tau o s . ~$
 syntax.
 geographical note.
 infinitive.

## B. Translate :













 $\dot{\varepsilon} \pi v \nu \theta a \nu o ́ \mu \varepsilon \theta a$ ．

1．$\delta o ́ \xi a \nu \nu \varepsilon ́ \sigma \phi \iota, \dot{\varepsilon} \pi \sigma \iota \eta \sigma a v \tau o ~ \lambda a \beta v \rho \iota \nu \theta o v$ ．Explain the syntax of $\delta \delta \xi \xi a v$ ． What is the derivation of $\lambda a \beta$ vepovfos？

2．фaveín éóvta．Distinguish from фavén हैvaa．
 used ？
 different cases used with $\pi \rho o \rho_{\rho}$ in this clause．Decline $\beta \circ \rho \varepsilon ́ \omega$ ．

## II．

1．What forms are found in Herodotus for ： $i \sigma \mu \varepsilon \nu, ~ \tau \rho \varepsilon i \varsigma, ~ o \dot{v} \nu, ~ \check{v} \nu, ~ \varepsilon \dot{v} \theta \varepsilon i a, \pi \lambda \hat{\varepsilon} o v, \dot{\eta} \nu, ~ \varepsilon i \kappa o ́ \varsigma, \pi \omega \varsigma$ ．

2．Parse fully ：aं $\pi о \rho \rho a \gamma \tilde{\eta}, \dot{\varepsilon} \xi v \rho \eta \mu \varepsilon ́ v o u, \eta \tilde{v} \delta a, \kappa a \tau \dot{\varepsilon} a \tau a \iota$ ．
3．Why does H．deny that a certain poem was written by Homer？
4．What places does H．state in the Second Book that he visited？
5．MH ME KATANO乏 $\Theta H \subset$ ПPO乏 TA乏 $A I \theta I N A \Sigma$ ПイPAMI $\triangle A \Sigma$ ． IIPOEX $\Omega$ TAP AYTE $\Omega$ N TOEOYTON，＇OEON＇O ZETE TRN AAARN ӨERN．KONTR ГAP＇$\Pi O T \Upsilon \Pi T O N T E \Sigma ~ E \Sigma ~ \triangle I M N H N ~ ' O ~ T I ~ \Pi P O \Sigma-~$ XOITO TOX HHAOY T $\ell$ KONT $\quad$ TOイTO $\Sigma \Upsilon A A E T O N T E \Sigma$ ，
 Accenfuate this passage in small letters；translate it and parse ПРО ХХOITO．

 $\tau \rho a \pi \varepsilon$ ह́ $\theta a i$ ．Translate and change the form from or．obliqua to or recta．

C．Translate into Greek ：While Timon was living in India，he perceived that some of his servants were stealing his property but did not know．which to accuse，as all denied having done it．Accordingly he devised the following plan to find them out．He shut up all the servants in prison，each apart from the others，and gave them sticks （ $\kappa \lambda a ́ \delta o \iota$ ）and told them to keep them carefully，for the thief＇s stick would grow an inch longer in the night．And when they heard this the rest rejoiced and lay down to sleep，but the thief could not sleep all night and at day－break，bewildered and fearing lest his stick had become longer，he broke off an inch of the wood．So that when the sticks were measured as his was the shorter，he was convicted easily．

## B.-MATHEMATICS

Examiner
C. Macdonald, M. A.

## GEOMETRY AND TRIGONOMETRY.

Time: Three Hours.

1. If a quadrilateral be inscribed in a circle, the rectangle of the diagonals is equal to the sum of the rectangles of the opposite sides.
2. $Q$ is the centroid of a triangle, $A B C$, vertex $A . C Q$ and $B Q$ meet the line through $A$ parallel to the base in $P$ and $R$. Prove

$$
\text { area of triangle } \mathrm{PQR}=\frac{4}{3} \text { area of } \mathrm{ABC} \text {. }
$$

3. What are the "centres of similitude" of two circles? What do you consider their leading property? Also, if there are three circles, state and prove, for one case, any remarkable relation of these "centres"
4. Define pole and polar with reference to a circle; and prove that a line through the pole meeting the circle and the polar is divided harmonically.
5. The parabola might be defined as the curve in which the square of the ordinate is proportional to the abscissa. Shew this, and give an analogous definition for the ellipse or the hyperbola, justifying what you say.
6. Prove any two of the following theorems:-(by any method)
(1) The tangents to a parabola, drawn from any point, subtend equal angles at the focus.
(2) The tangent to an ellipse at any point makes equal angles with the focal distances of the point.
(3) S and H are the foci, and P any point, in an ellipse. Shew that the radius of the circle inscribed in the triangle SPH bears a constant ratio to the altitude of the triangle.
7. The three angles of a spherical triangle are together greater than two right angles and less than six.
8. Prove the formula, in spherics,

$$
\cos a=\frac{\cos A+\cos B \cos C}{\sin B \sin C}
$$

9. If the angle $\theta$ be less than four right angles, and

$$
\sec \frac{\theta}{2}=\frac{(m+n) \sqrt{2}}{m-n},
$$

$m$ and $n$ being of the same sign, shew that $\theta$ is greater than one, but less than three right angles.
10. Solve any two of the following :- to prove
(1) $\frac{\sin A+\sin C}{\cos A+\cos C}=\frac{\cos C-\cos A}{\sin A-\sin C}$.
(2) $a^{2} \sin 2 B+b^{2} \sin 2 A=2 a b \sin C$.
(3) If $\cot A, \cot B, \cot C$, are in A. P. $a^{2}, b^{2}, c^{2}$, are also in A. P.
N. B.-Assume the usual notation for the parts of a plane triangle.

MISCELLANEOUS.

Time: Thref Hours.
${ }^{2}$ 1. Use the theorem,

$$
(\cos x+\sqrt{-1} \sin x)^{m}=\cos m x+\sqrt{-1} \sin m x
$$

to find $\cos m x$ and $\sin m x$ in terms of $\sin x$ and $\cos x, m$ being a positive integer. Write also the two middle terms of the series you start with, $m$ being odd; and divide the second of these by the former.
2. Use the results of the last problem to find the expressions for $\sin x$ and $\cos x$ in ascending powers of $x$.
3. One of the series you have just found contains only even powers, and the other only odd powers, of $x$. Shew, from your knowledge of previous Trigonometry, that this result could have been anticipated. Is the same thing true of other single Trigonometrical functions? Shew also, in the case of either of the series you have found, that it is convergent.
4. Prove that $e$, the base of the Napierian Logarithms, is not expressible by any finite number, $i$. e., that $e$ is incommensurable.
5. Prove that the circular measure of $2^{\circ} 51^{\prime}$ is slightly less than $\frac{1}{20}$; but, assuming it to be as much as $\frac{1}{20}$, shew that the naturcl sine of the angle specified, found by taking only the first two terms of Euler's series for $\sin x$, is correct to at least six decimal places.
6. From the exponential expressions for $\sin x$ and $\cos x$, prove either
(1) $\cos ^{2} x-\sin ^{2} x=\cos 2 x$;
or (2) any one of the four fundamental formula for $\sin (A \pm B)$ and $\cos (A \pm B)$.
7. Let $A$ be the area of the triangle contained by the lines joining the points where the inscribed circle of a triangle touches the sides; and let $a, \beta, \gamma$, be the length of these lines. Prove
(1) $A=\frac{1}{2} \pi^{2}(\sin A+\sin B+\sin C)$;
and (2) $\frac{a b c}{a \beta \gamma}=2 \frac{R^{2}}{r^{2}}$.
(The usual notation in this and the next problem.)
8. If the points where the several escribed circles touch the sides be traated as in the last problem, and $A_{1}, A_{2}, A_{3}$, be the areas of the several triangles so formed; prove

$$
\frac{A_{1}+A_{2}+A_{3}}{A}=\frac{r_{1}+r_{2}+r_{3}}{r}
$$

9. How do you sum such a series as

$$
a+(a+\delta) x+(a+2 \delta) x^{2}+(a+3 \delta) x^{3}+\& c . ?
$$

Illustrate by summing $n$ terms of

$$
3+\frac{5}{2} x+\frac{7}{4} x^{2}+\frac{9}{8} x^{3}+\& \mathrm{c} .
$$

11. There are $m$ persons, $\mathrm{A}, \mathrm{B}, \mathrm{C}, \& \mathrm{c}$., and $u$ persons, Z, Y, X, \&c. $(n<m)$, all of equal trustworthiness as to their statements. Shew that if Z, Y, X, \&e., agree in denying a statenient that A, B. C, \&e., agree in affirming, the mathematical value of their conflicting testimony is the same as if $m-n$ of them had affirmed, the others giving no testimony in the matter.

## C.-ENGLISH.

Examiner . ... ........... Archibald MacMechan, Ph. D.

Lounsbury's History of the English Language, Pt. I.; Spenser's Faerie Queen, ßk. I.; Shakespeare's King John ; As Yuu Like It ; Byron's Childe Harold.

## Time: Three Hours

> N. B.-Not more than two questions to be answered in each division.

## A.

1. Describe fully the position of English in the Indo-European group of languages.
2. How did the term "King's English" arise?
3. What Romance languages have influenced English? At what periods? In what manner?

## B.

4. Spenser has been called the "poet's poet." Can you justify this description from the "Faerie Queen ?"
5. Give some account of the adventures of Una in Bk. I. of the "Faerie Queen."
6. Write explanatory notes on ten of the italicised words in the following extracts:
(a) He, making speedy way through spersed air.
(b) And with false shewes abuse his fantasy.
(c) Eft-soones he perced through his chaufed chest.
(d) Full of vaine follies and new fangleness.
(e) Through unadvized rashness waxen wood.
(f) And yet more sad, that Una, his dear dreed Her truth had staynd-
(g) -His mightie shield Upon his manly arm he soone addrest.
(h) His rawbone armes, whose mighty brawned bowrs Were wont to rive steel plates.
(i) Which he had got abroad by purchas criminall.
(j) Then brought she me into this desert waste, And by my wretched lovers side me pight.

## C.

7. Sketch the characters of Hubert, Arthur und Constance.
8. What part does Jacques play in As You Like It? Contrast him in his character as a wit with Touchstone.
9. Quote two passages, one from King John and one from As You Like It, each not less than ten lines in length.

## D.

10. "Lord Byron never wrote without some reference, direct or indirect, to himself." Justify or disprove this statement from "Childe Harold."
11. Do you consider a knowledge of Byron's life necessary in order to understand his poetry? Give reasons for your answer.
12. Quote any passage in "Childe Harold" of about 36 lines in length.

[^0]:    * The dates of the Christmas Examinations (See § XI (1)) will be announced after the opening of the Session.

[^1]:    $\ddagger$ The Tutor will also be in the Library two or three times a week, from 3 to 5 p. m., when he may be consulted by students with reference to their studies.

    * Students seeking a First or Second Class Distinction are examined in this additional subject. An "unseen" passage will also be set for translation.

[^2]:    * Students seeking a First or Second Class Distinction are examined in this additional subject. An "unseen" passage will also be set for translation.
    + For private reading for a First Class. An "unseen" passage also will be set for translation for a First or Second Class.
    $\ddagger$ The Tutor will also be in the Library two or three times a week, from 3 to $5 \mathrm{p} . \mathrm{m}$., when he may be consulted by students with reference to their studies.

[^3]:    * Students seeking a First or Sscond Class Distinction are examined in this additional subject. An "unseen" passage will also be set for translation.
    $\dagger$ For private reading for a First Class. An "unseen" passage will also be set for translation for a First or Second Class.

[^4]:    $\dagger$ The Syllabus in this subject may be altered at the opening of the Session.

    * Candidates for First Class will be examined in these additional works, which will not be read in class.

[^5]:    * Candidates for First Class will be examined in these additional works, which will not be read in class.

[^6]:    * This course may not be given in 1890-91.

[^7]:    * An extra hour for some part of the Session may be required.
    $\dagger$ This work is published in two volumes. The first of these-"A Treatise on, Elementary Trigonometry"-is sufficient for the ordinary class.

[^8]:    * The "ordinary" subjects are those not marked with an asterisk in § i.

[^9]:    * So far as the provisions of the Time Table permit.
    $\dagger$ See Syllabus of English Classes (§I. iII.)
    $\ddagger$ The Advanced Class nay be taken as an ordinary class in the Fourth Year. (See § I. iv.)

[^10]:    4-5. Either Advanced Mathematics or Organic and Practical Chemistry.

[^11]:    * The provision of a Special Course in Modern Languages (including English, French, and German) is under consideration, and may be made for the Session of 1891-92.

[^12]:    Books recommended: Green's History of the English People, Vol. 3 ; Lingard'd History of Englard, Vols. 7-10; Hallam's Constitutional History of England, Chap. VI-XIV.; Ranke's History of England; S. R. Gardiner's Works on this Period; Clarendon's History of the Great Rebellion; Masson's Life of Milton; Carlyle's Life of Cromwell ; Forster's Life of Elliott; Bayne's Chief Actors in the Puritan Revolution.

[^13]:    * Matriculation consists in entering the name upon the Register of a University as an undergraduate, not in the mere passing of a Matriculation Examination.

[^14]:    *These Text Books are mentioned to indicate in a general way the extent of knowledge required.
    $\dagger$ The classical books for 1891-92 will be as follows :-
    Latin:-Cossar: Gallic War, Books IV. and V., Virgil: Eneid, Book II. Greek :-Xenophon: Anabasis, Books V., VI., VII.
    An " unseen" prose passage in both Latin and Greek will be set for translation at th s examination in 1891.

[^15]:    + The English Classes of the First and Second Years, and the History and Physics Classes of the Third and Fourth Years, though extending over two sessions shall for the purpose of this rule be considered single classes. The Latin and Greek Classes of any one year shall also be considered single classes.

[^16]:    Text book: Chalmers on Bills.

[^17]:    * Latin for 1890, Cæsar, Gallic War, Bks. II. and III., or Virgil, Æneid. Bk. II. Latin for 1891, Cæsar, Gallic War, Bks. IV. and V.; or Virgil, Æneid, Bk. II. Greek for 1890, Xenophon, Anabasis, Bk. IV., or V. or VI.
    Greel for 1891, Xenophon, Anabasis, Bk. V. or VI. or VII.
    In French, Voltaire's Charles XII., Books I. and II., or Seribe's Bertrand et Raton. In German, Adler's Reader (Appleton \& Co.), Zweiter Absehnitt, 1-4 and 14-17 (inclusive), or Schiller's Der Neffe als Onkel, Act I.
    + These books are mentioned to show the extent of knowledge expected. Other books may of course be used by candidates.

[^18]:    $\dagger$ The Provincial Legislative Library and the Citizens' Free Library being open to the public on the fulfilment of certain conditions, may also be used by students.

[^19]:    * The Provincial Museum, which contains collections illustrating the Mineralogy, Geology, and Zoology of the Province, is open to the public daily, and may be used by Students.

[^20]:    * Part passed at MeGill University.

[^21]:    * Not including Practical Chemistry.
    $\dagger$ Including Histology.

[^22]:    ${ }^{1}$ Graduated with First Rank Honours in Classics.
    ${ }^{2}$ Graduated with Second Rank Honours in Classics.
    ${ }^{10}$ Graduated with Second Rank Honours in English and English History.
    ${ }^{12}$ Graduated with Second Rank Honours in Mental and Moral Philosophy.
    ${ }_{14}$ Graduated with Second Rank Honours in Mathematics and Mathematical Physics.
    † Governor-General's Gold Medallist.
    $\ddagger$ Governor-General's Silver Medallist,

[^23]:    ${ }^{2}$ Graduated with Second Rank Honours in Classics.
    ${ }^{9}$ Graduated with First Rank Honours in English and English History.
    ${ }^{10}$ Graduated with Second Rank Honours in English and English History.
    ${ }^{11}$ Graduated with First Rank H nours in Mental and Moral Philosophy.
    ${ }_{14}$ Graduated with Second Rank Honours in Mathematics and Mathematical

    * DeMill Gold Medailist.
    + Governor-General's Gold Medallist.
    $\ddagger$ Governor-General's Silver Medallist.
    § Sir William Young's Gold Medallist.
    a Munro Tutor in Mathematies, 1883-5.

[^24]:    ${ }^{9}$ Graduated with First Rank Honours in English and English History.
    ${ }^{10}$ Graduated with Second Rank Honours in English and English History.
    ${ }^{11}$ Graduated with First Rank Honours in Mental and Moral Philosophy.
    ${ }^{12}$ Graduated with Second Rank Honours in Mental and Moral Philosophy.

    * De Mill Gold Medallist.
    + Governor-General's Gold Medallist.
    $\ddagger$ Governor-General's Silver Medallist.

[^25]:    ${ }^{1}$ Graduated with First Rank Honours in Classics.
    ${ }^{2}$ Graduated with Second Rank Honours in Classies.
    ${ }^{12}$ Graduated with Second Rank Honours in Mental and Moral Philosophy.
    ${ }^{18}$ Graduated with General Distinction of Second Rank.
    $\dagger$ Governor-General's Gold Medallist.

[^26]:    ${ }^{2}$ Graduated with Second Rank Honours in Classics.
    ${ }^{14}$ Graduated with Second Rank Honours in Mathematics and Math. Physics.
    ${ }^{15}$ Graduated with First Rank Honours in Experimental Physics and Chemistry.
    ${ }^{16}$ Graduated with Second Rank Honours in Experimental Physics and Chemistry.
    $\dagger$ Governor-General's Gold Medallist.
    $\ddagger$ Governor-General's Silver Medalli-t.
    § Sir Willian Young Gold Medallist.

    - Mackenzie Gold Medallist.
    a Munro Tutor in Mathematics, 1887-89.

[^27]:    1 Graduated with First Rank Honours in Classics.
    5 Graduated with First Rank Honours in Greek and English.
    9 Graduated with First Rank Honours in English and English History.
    12 Graduated with Second Rank Honours in Mental and Moral Philosophy.
    ${ }^{13}$ Graduated with First Rank Honours in Mathematics and Mathematical Physics.
    14 Graduated with Second Rank Honours in Mathematics and Math. Physics.

    * DeMill Gold Medallist.
    $\dagger$ Governor-General's Gold Medallist.
    $\ddagger$ Governor-General's Silver Medallist.
    § Sir Willioni Young's Gold Medallist.
    a Munro Tutor in Mathematics, 1885-7.
    b Munro Tutor in Classics, 1885-7.

[^28]:    ${ }^{1}$ Graduated with First Rank Honours in Classies.
    ${ }^{10}$ Graduated with Second Rank Honours in English and English History.
    ${ }^{11}$ Graduated with First Rank Honours in Mental and Moral Philosophy.
    ${ }^{12}$ Graduated with Second Rank Honours in Mental and Moral Philosophy.
    ${ }^{13}$ Graduated with First Rank Honours in Mathematics and Mathematical Physics.
    ${ }^{14}$ Graduated with Second Rank Honours in Mathematics and Math. Physics.
    ${ }^{17}$ Graduated with General Distinction of First Rank.
    $\dagger$ Governor-General's Gold Medallist.
    § Sir William Young's Gold Medallist.

[^29]:    ${ }^{2}$ Graduated with Second Rank Honours in Classics.
    ${ }^{9}$ Graduated with First Rank Honours in English and English History.
    ${ }^{10}$ Graduated with Second Rank Honours in English and English History.
    ${ }^{13}$ Graduated with First Rank Honours in Mathematics and Math. Physles.
    ${ }^{14}$ Gradnated with Second Rank Honours in Mathematics and Math. Physics.
    † Governor-General's Gold Medallist.
    $\ddagger$ Governor-General's Silver Medallist.
    b Munro Tutor in Classies, I883-5.

