## ANNUAL CALENDAR

## OF <br> McGILL COLLEGE AND UNIVERSITY,

MONTREAL.


FOUNDED UNDER BEQUEST OF THE HON. JAMES McGILL, EREOTED INTO A UNIVERSITY BY ROYAL CHARTER

IN 1821, AND RE-ORGANIZED BY AN AMENDED CHARTER IN 1852.

## SESSION 1897-98

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1897.

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NOTICE.
The June Entrance Examinations for 1898 will begin on Monday, May 30th, and be coutinued through the first week of June.
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The List of Graduates corrected to June, 1895, and the Examination Pupers (price 75 cents) for each Session, are published separately, and may be obtained on application to the Secretary .

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McGill College.
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59 Metcalfe Street.
875 Dorchester Street.
4 Drummond Street.


## 雪eneral 窙tatement.

## SESSION OF 1897-98.

The Sixty-fifth Session of the University, being the Forty-fifib under the amended Charter, will commence in the autumn of $\mathbf{1} 897$.

By Virtue of the Royal Charter, granted in 1821 and amended in 1852, the Governors, Principal and Fellows of McGill College constitute the Corporation of the University; and, under the Statutes framed by the Board of Governors with the approval of the Visitor, have the power of granting Degrees in all the Arts and Faculties in McGill College and Colleges affiliated thereto.

The Statutes and Regulations of the University have been framed on the most liberal principles, with the view of affording to all classes of persons the greate: possible facilities for the attainment of mental culture and professional training. In its religious character the University is Protestant, but not denominational, and while all possible attention will be given to the character and conduct of Students, no interference with their individual views will be sanctioned.

The educational work of the University is carried on in McGill College, Montreal, and in the Affiliated Colleges and Schools.

## I. McGill College.

The Faculty of Arts.-The complete course of study extends over four Sessions of eight months each; and includes Classics and Mathematics, Experimental Physics, English Literature, Logic, Mental and Moral Science, Natural Science, and one Modern Language or Hebrew. The course of study is, with few exceptions, the same for all Students in the first two years; but in the third and fourth years extensive options are allowed, more especially in favour of the Honour Courses in Classics, Mathematics, Mental and Moral Science, Natural Science, English Literature, Modern and Semitic Languages. Certain exemptions are also allowed to professional students. The course of study leads to the Degrees of B.A., M.A. and LL.D.
The Degree of B.A. from this University admits the holder to the study of the learned professions without preliminary examination, in the Provinces of Quebec and Ontario, and in Great Britain and Ireland, etc.
In the Session 1894-5, special regulations were sanctioned by the Corporation, by which the degree of B.A. can be obtained along with the degree in the Faculty of Medicine or of Applied Science in six years. This is effected by avoiding the duplication of courses in the same subjects or in those which give the same educational training, and by a prcper adaptation of the time tables. A certificate of Literate in Arts will be given along with the degree in either Faculty to candidates who have completed two years in Arts before entering the Professional Faculty.
The Degree of B.A. can be obtained along with the degree in the Faculty of Law also in six years.
The Donalda Special Course in arts provides for the education of women, in separate classes, with course of study, exemptions, degrees and ho aours similar to those for men.
The Faculty of Applied Science provides a thorough professional training, extending over four years, in Civil Engineering, Mechanical Engineering, Mining Engineering and Assaying, Electrical Engineering, and Practical Chemistry, leading to the Degrees of Bachelor of Applied Science, Master of Engineering, and Master of Applied Science.
The Faculity of Medicine.-The complete course of study in Medicine extends over four Sessions of nine months each, and leads to the Degree of M D., C.M.

The faculty of Comparative Medicine and Veterinary Science.-The complete course extends over three Sessions of six months each, and leads to the Degree of D.V.S.
The Faculty of Law.-.The complete course of law extends over three Sessions of eight months each, and leads to the Dcgrees of B.C.L. and D.C.L.

## II. AFFILIATED COLLEGES.

Students of Affiliated Colleges are matriculated in the University, and may pursue their course of study wholly in the Affiliated College, or in part in McGill College, and may come up to the University Examinations on the same terms as the students of McGill College.
Morrin College, Quebec.-Is affiliated in so far as regards Degrees in Arts and Law. [Detailed information may be obtained from the Rev. Do nald Macrae D.D., Principal.]

St. Francis College, Richmond, P.Q.--Is affiliated in so far as regards the Intermediate Examinations in Arts. [Detailed information may be obtained from J. A. Dresser, B.A., Principal.]
The Stanstead Wesleyan College, Stanstead, P.Q.-Is affiliated in so far as regards the Intermediate Examination in Arts. [Detailed information may be obtained from the Rev. C. R. Flanders, B.A., Principal.]

## III. AFFILIATED THEOLOGICAL COLLEGES.

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The Presbyterian College, Montreal, in connection with the Presbyterian Church in Canada. Principal, Rev. D. H. MacVicar, D.D., LL.D., 69 McTavish St.
The Diocesan College of Montreal: Principal, -, 20 I University St.
The Westeyan College of Montreal. Principal, Rev. W.I. Shaw, M.A., LL.D., 228 University St.
(Calendars of the above Colleges and all necessary information may be obtained on application to their Principals.]

IV. McGILL NORMAL SCHOOL.

The McGill Normal School provides the training requisite for Teachers of Elementary and Model Schools and Academies. Teachers trained in this School are entitled to Provincial Diplomas, and may, on conditions stated in the announcement of the School, enter the classes in the Faculty of Aits for Academy Diplomas and for the Degree of B.A. Principal, S. P. Kobins, LL.D., 32 Belmont St., Montreal.

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## ACADEMICAL YEAR 1897-98.

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6 Mond
7 Tuesd
8 Wedn
9 Thurs
1o Frida
${ }^{11}$ Saturd
13 Mond:
14 Tuesd
${ }_{15}^{14}$ Wedne
${ }_{16} 15$ Thurst

1) Friday

18 Saturd
19 SUN1
so Monda

21 Tuesda
22 Wedne
${ }^{2} 3$ Thursd
${ }^{2}$ Y'ride
${ }^{2} 5$
${ }^{2}$ Monda ${ }^{28}$ Tuesda 29 Wedne


FACULTY OF ARTS:
EXHIBITION, SCHOLARSHIP, CTC., EXAMIN.4TIONS, SEPTEMBER, 1897.


CHRISTMAS EXAMINATIONS DECEMBER, $\mathbf{1 8 9 7}$.

| Day. | Date | First Ybar, | Sbcond Ybar. | Third Year. | Fourth Year. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Wednesday. | $\begin{aligned} & 15 \\ & 15 \end{aligned}$ | Latin. | Latin. <br> M'matics, P.M. | Mechanics. | Astronomy. |
| Thursday. <br> " | $\begin{aligned} & 16 \\ & 16 \end{aligned}$ | Greek, | Greek. | Greek. <br> Zoology, P.M. | Greek. <br> Latin, P.M. |
| Friday. | 17 | Mathematics. | Psychology. | Latin | Moral Philosophy |
|  | 17 | French, P.M. | French, P.M. | Ment. Phil., P.M. | Geology, P.M. |
| Monday | 20 | Chemistiy, | Botany. |  |  |
| " | 20 | German, P.M. | German, P.M. |  |  |
| " | 20 | Hebrew, P.M. | Hebrew, P.M. |  |  |
| Tuesday. | 21 | English. | History. |  |  |

FACULTY OF ARTS.
SESSIONAL AND HONOUR EXAMINATIONS, APRIL, 1898.

| Date. | First Year. | Second Year. | Third Year, | Fourth Year. |
| :---: | :---: | :---: | :---: | :---: |
| April. | A.M. P.M. | A.M. P.M. | A.M. P.M. | A.M. P.M. |
| 1 Fri. | Hebrew . . . . . . . . . . . | Hebrew. | Hebrew.... ...... | Hebrew and |
| 4 Mon. | Greek. . . . . . . .Greek. | Greek. . . . . . . Greek. | Mechanics........ | B.A. Honours. Ethics. Ethics. |
| 5 Tues. | Latin. . . . . . . . Latin. | Latin. . . . . . . . Latin, | Latin. . . . . . Latin. | Latin. Latin. |
| 6 Wed. | English...... English. | Mod. Hist...... . . . | Ex. Phy- English. sics. | Ex. Phy- English. sics. |
| 7 Thurs. |  |  | Botany ... ........ | Botany. |
| 8 Fri. | Good Friday, Easter | vacation begins...... |  |  |
| 13 Wed. | Geometry and Arithmetic.... | Mathematics. | Greek. ..... Greek. | Mechanics and B.A. Honours. |
| 14 Thurs. | Trigonometry and Algebra. | Mathematics. | Astronomy and .... Optics. $\qquad$ | Astr'y. and Optics. B.A. Honours. |
| 15 Fri. | French. German. | French. German. | Metaphysics....... | Geology. Geology |
| 18 Mon. | Chemistry . . . . . . . . . | Logic..... . . . . . . . . . | Zoology........ ... | Greek. Greek. |
| 19 Tues. |  | Botany | French. . .German. | French. German B.A. Honours. |
| 20 Wed. 21 Thurs. | Honour Examinations Meeting of Meeting of | Honour Examinations Examiners and Facul Examiners and Facul | Honour Exam'tions ty at $9.30 \mathrm{~A} . \mathrm{M}$. ty at $9.30 \mathrm{~A} . \mathrm{M}$. | B.A. Honours. |
| 22 Fri. | Honour Examinations | Honour Examinations | Honour Exam'tions | B. A. Honours, |
| 23 Sat. | Meeting of Examin | er and Faculty at | 9.30 A.m. |  |
| ${ }_{24}$ Sun. |  |  |  |  |
| 25 Mon. | Meeting of Examiner | s and Faculty at 9.30 | A.m. Declaration | of results. |
| 26 Tues. |  |  |  |  |
| 27 Wed. | Regular Meetıng of C | orporation. |  |  |
| 28 Thurs. |  |  |  |  |
| ${ }^{29}$ Fri. | Convocation for Degr | ees in Arts. |  |  |

The Examinations begin at 9 A.M. ad 2 P.M, when not specified otherwise,

## YACULTY OF APPLIED SCIENCE.

SESSIONAL EXAMINATIONS, APRIL, 1898.

| Days. | First Year, | Second Year. | Third Year, | Fourth Year. |
| :---: | :---: | :---: | :---: | :---: |
| 4 Mon. | $\left\{\begin{array}{l} \text { Desc, Geom, a,m.. } \\ \text { Geom. Draw, p,m. } \end{array}\right.$ | Desc, Geometry | Theory of Structures | $\left\{\begin{array}{l} \text { Chemistry. } \\ \text { Theory of Struct. } \end{array}\right.$ |
| 5 Tues. | Mathematics. | Chemistry. | $\left\{\begin{array}{l} \text { Chemistry. } \\ \text { Machine Design. } \end{array}\right.$ | $\left\{\begin{array}{l} \text { Assaying. } \\ \text { Dyn. of Machin'y } \end{array}\right.$ |
| 6 Wed. | English | Exp. Physics. | Exp. Physics. | $\left\{\begin{array}{l}\text { Elect, Eng } \\ \text { Geodesy, }\end{array}\right.$ |
| 7 Thurs. | Math. Lab, | Su | Desc, Geom. | Mechl. |
| 8 Fri. | Good Friday. |  |  |  |
| 9 Sat. |  | Chemistry. | Theory of Structures | $\left\{\begin{array}{l} \text { Chemistry. } \\ \text { Elect. Engin. } \\ \text { Geology. } \\ \text { Theory ofStruct. } \end{array}\right.$ |
| 10 Sun. | Easter Гay. | .................... |  | ..................... |
| 11 Mon. | Pract. Chem | Kinematics, | Surveying. | Mechl, Engin, Lab. |
| 12 Tues. | Mathematics. | Mathematics. | $\left\{\begin{array}{l}\text { Elect. Engin. } \\ \text { Org. Chemistry. }\end{array}\right.$ | $\left\{\begin{array}{l} \text { Hydraulics. } \\ \text { Org. Chemistry. } \end{array}\right.$ |
| 13 Wed . |  |  | Geology. | Hydraulics. |
| 14 Thurs. | Pract. Chem. (2) | Arch tecture. | Dyn. of Mach. | $\left\{\begin{array}{l}\text { Elect. Eng. } \\ \text { Machine Design, }\end{array}\right.$ |
| 15 Fri. | Chemistry. | Mechl. Drawing. | $\left\{\begin{array}{l} \text { Mechl. Drawing. } \\ \text { Phys. Lab.Wk.p.m } \\ \text { Municipal Eng } \\ \text { a.m. and p.m. } \end{array}\right.$ | $\left\{\begin{array}{l}\text { Geology. } \\ \text { Phys.Lab.Wk.p.m }\end{array}\right.$ |
| 16 Sat. | Pract. Chem. (3) |  | $\left\{\begin{array}{l}\text { Mining. } \\ \text { Thermodynamics. }\end{array}\right.$ | Thermodynamics. |
| ${ }_{7} 7$ Sun. |  |  |  |  |
| 18 Mon . | Mathematics. | Zool | Railway Engin, | $\left\{\begin{array}{l}\text { Desc, Elect, Eng. } \\ \text { Geology. } \\ \text { Railway Eng. }\end{array}\right.$ |
| 19 Tues. | - | $\left\{\begin{array}{l} \text { Botany. } \\ \text { Mathematics } \end{array}\right.$ | Mathematics. | $\left\{\begin{array}{l} \text { Municipal Engin. } \\ \text { Mechl. Designing. } \end{array}\right.$ |
| 20 Wed. |  |  | M | Geolog |
| 21 Thurs. |  |  |  | Metallurgy |
| 22 Fri. |  | ......... ............ | Mineralogy (Adv.). | ...................... |
| ${ }_{23}$ Sat. |  |  |  |  |
| 24 Sun. |  |  |  |  |
| $25 \mathrm{Mon}$. |  |  |  |  |
| 26 Tues |  |  |  |  |
| 27 Wed |  |  |  |  |
| 28 Thurs. |  |  |  |  |
| Fri |  |  |  |  |
| Fri. | Convocation. | ..................... |  | $\cdots$ |

## FACULTY OF ARTS.

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## ffaculty of eftrs.

## Part First.

Sir J. W. Dawson, LL D., Emeritus Principal, and Emeritus Professor in the Faculty of Arts

## I. OFFICERS OF INSTRUCTION.

## Professors.

W. Peterson, M.A., LL.D., Principal, and Professor of Classics.

Alexander Johnson, M.A., LL.D., D.C.L., Vice-Principal, Dean of the Faculty of Arts, and Professor of Mathematics.
Rev. J. Ciark Murray, Ll.D., Professor of Mental and Moral Philosophy.
Bernard J. Harrington, M.A., Ph.D., Professor of Chemistry and Miner alogy.
Charles E. Moyse, B.A., Professor of the English Language and Literature-
D. P. Penhallow, B.Sc., M.A.Sc., Professor of Botany.

Rev. Daniel Coussirat, B.A., D.D., O.A., Professor of Hebrew and Oriental Literature.
John Cox, M.A., Professor of Physics.
A. Judson Eaton, M.A., Ph.D., Associate Professor of Classics.

Frank 1). Adams, M-A.Sc., Ph.D., Professor of Geology and Palæontology.
Hugh L. Callendar, M.A., Professor of Physics.
C. W. Colby, M.A., Ph.D., Professor of History.

Frank Carter, M.A., Professor of Classics.

Lecturers.
Paul T. Lafleur, M.A., Lecturer in Logic and English.
Leigh R. Gregor, B.A., Ph.D., Lecturer in the German Language and Literature.
Maxime Ingres, Lecturer in French.
(7he above Professors and Lecturers constitute the Faculty.)
Other Officers of Instruction.
C. H. McLeod, Ma.E., Superintendent of the Observatory.

Nevil Norton Evans, M.A.Sc., Lecturer in Chemistry.
Rev. H. M. Tory, M.A., Lecturer in Mathematics, and Demonstrator in Physics.
C. M. Derick, M. A., Lecturer in Botany.

Rev. J. L. Morin, M.A., Sessional Lecturer in French.
S. B. Slack, M.A., Lect : : in Classics.
F. H. Pitcher, B.A.Sc, Demonstrator in Physics,

Alex. Brodie, B.A.Sc., Demonstrator in Chemistry.
Howard T. Barnes, M.A.Sc., Demonstrator in Physics.
J. P. Stephen, Instructor in Elocution.
A. Tait McKenzie, B.A., M.D., Instructor in Physical Culture.

# II. COURSES OF LECTURES. Classical Literature and History. 

Professors :-W. Peterson, M.A., LL.D. Frank Carter, M.A.<br>Associate Professor :- A. J. Eaton, M.A., Ph.D.<br>Lecturer :-S. B. Slack, M.A.

In this department, the work of the first two years is divided mainly between exercise in Grammar and Composition and the reading of selected authors. The attention of the student is at the same time directed to the collateral subjects of History, Literature, Antiquities, and Geography, in connection with which värious text-books are recommended, as specified below.

In the Third and Fourth Years (as also in the Honour Courses) the instruction takes more of the lecture form, and an attempt is made to give a connected wor of the leading branches of ancient literature and the most imp

Students may be exami for each class, even thou phases of ancient life and thought. the whole of the work prescribed ture.
Subjects are suggested for Summer Readings in the vario'is branches of class work. Students are recommended to undertake these subjects during their long vacation, and credit will be given for them in the Antual Examinations.

Ordinary

## Greek.

## First Year.

I. In this class, besides a review of grammatical principles (Rutherford's Greek Grammar, Accidence), portions of some Greek anthors-e.g., Xenophon, Homer, Herodotus, lucian and Euripides -are read and explained.

For 1897-98 the work will be Phillpotts and Jerram's Easy Selections from Xenophon, Parts I-V (Clarendon Press); Homer, Iliad, XXII (Edwards, Pitt Press) ; Sidgwick's Scenes frcm the Medea of Euripides (Longmans). History from B.C. 560 to 479, Cox's Greeks and Persians (Longmans Epoch Series). For Composition, the manual used will be Abbott's Arnold's Greek Prose Composition (Longmans); for Translation at Sight, written and oral, Turner's Latin and Greek Passages (Longmans).
2. The work of the Second Year will be selected mainly from the Greek Dramatists, and from Thucydides, Plato or Demosthenes.

Subjects for 1897-98 :-
Summer Readings.-Plato, Crito (Adam, Pitt Press), and Cebetis Tabula (Jerram, Clarendon Press). History.-The Athenian Supremacy, Cox's Athenian Empire (Longmans' Epoch Series) with Jebb's Primer of Greek Literature, pp. i-100. Students are also reAbbott's Pericles (Put arm). Literature.-Outlines as contained in commended to work through some portion of Burnet's Greek Rutdiments (Longmans).
Sbssional Lectures.-Thucydides (Moore's Easy Selections, pp. 47-1II, Longmans), and Sophocles, Electra (Campbell \& Abbott, Clarendon Press ; or Jebb, (Rivingtons). The practice of Composition and Translation at Sight will be continued as before : Sidgwick's First Greek Writer and Jerram's Anglice Reddenda.

The following books are recommended for general use during the first two years of the course :-Jebb's Introduction to Homer (Maclehose), supplemented by readings in Murray, Jevons or Mahaffy ; Oman's History of Greece (Percival) ; Mahaffy's Primer of Greek Antiquities ; and Tozer's Primer of Classical Geography (Macmillan). Rutherford's Greek Grammar (Accidence and Syntax) ; or Sonnenschein's (Parallel Grammar Series, or Burnet's Greek Rudiments).

Students should provide themselves also with Kiepert's Atlas Antiquus.
Subjects for 1897-98.
3. Summer Readings.-Luciani Vera Historia (Jerram : Clarendon Fress.) History.-The Peloponnesian War and Outlines to the Battle of Chaeronea (Oman's History with Sankey's Spartan and Theban Supremacies, Longmans). Literature.-The origin and growth of the Drama. The Historians and Orators (Murray's Ancient Greek Literature (Heinemann)
Sessional Lectures.-Demosthenes, Leptines (King, Macmillan); Aristophanes, Equites (Merry, Clarendon Press). For practice in Composition, Sidgwick's Introduction to Greek Prose Composition will be used ; for Translation at Sight Fowler's Sportella (Rivingtons).
4. Subjects for $1897-98$.

Summer Readings. - Pratt \& Leaf's Homer, the Story of Achilles (Macmillan's Classical Series). The Constitutional History of Athens, with a general study of Greek Antiquities and Literature.
Sessional Lectures.-Plato, Protagoras (Adam, Pitt Press) : Euripides, Orestes (Wedd, Pitt Press). Composition and Translation at sight as in the Third Year.

Third Year.

The following books are recommended for general use: Gow's Companion to School Classics (Macmillan); Jebb's Growth and Influence of Classical Greek Poetry (Macmillan); Campbell's Guide to Greek Tragedy (Percival); Butcher's Demosthenes (Classical Writers Series) ; Abbott's Pericles (Putnam) ; Jevons's or Mahaffy's or Murray's History of Greek Literature; Kiepert's Manual of Ancient Geography (Macmillan) ; Greenidge's Constitutional History-

## Honours.

Third 5. The books selected for class reading during session 1896-97 are Year. the following :- Homer, Odyssey IX, X, XII (Merry, Clarendon Press) ; Thucydides, Book IV (Graves, Macmillan ; or Barton \& Chavasse, Longmans) ; Æschylus, Prometheus (Prickard, Clarendon Press) ; Euripides, Electra, (Lodge, Ginn); Plato, Gorgias (Thompson, Bell).

For practice in Composition, written and oral, the manual used will be Sidgwick's Introduction to Greek Prose Composition ; for Translation at Sight, Fox \& Bromley's Models and Exercises (Clarendon Press). In History the examination will be directed to testing a general knowledge of the course of Greek History to the death of Alexander, and a more minute knowledge of the development of the Athenian Constitution and the period of Athenian Supremacy. In Literature, a general knowledge will be expected of the course of Greek literature, and a more minute knowledge of the lives and writings of the authors prescribed.

Fourth Year.

Ordir First J
6. In this class students will be expected to overtake a comprehensive programme of reading, such as the following, in whole or in part:-Homer, Iliad, Selections from Books I-VI* (Leaf and Bayfield, Macmillan) ; Lyric Poets (Tyler's Selections, Ginn \& Co., or Hiller's Anthologia Lyrica, Teubner) ; Pindar (Seymour's Selected Odes, Ginn \& Co.) ; Herodotus VII (Butler, Macmillan) ; Thucydides Book I (Forbes, Clarendon F'ress) ; Eschylus, Agamemnon (Sidgwick, Clarendon Press) : Sophocles, Antigone and Philoctetes* (Jebb, Cambridge Press) ; Aristophanes, Frogs (Merry, Clarendon Press) ; Plato, Republic, I-IV, (Clarendon Press) ; Attic Orators, (Jebb's Selections, Macmillan) ; Aristotle, Poetics*, omitting XX and XXV (Butcher, Macmillan) ; Ethics I, II and X (Bywater, Oxford) ; Demosthenes, De Corona* (Drake, Macmillan).
Translation at Sight.-Fox \& Bromley's Models and Exercises (Clarendon Press).
Prose Composition.-Sidgwick, and from Dictation.
use : Gow's Growth and npbell's Guide res (Classical or Mahaffy's 's Manual of ional History.
on 1896-97 are :y, Clarendon or Barton \& rd, Clarendon ato, Gorgias
manual used position ; for nd Exercises e directed to listory to the the develophenian Suprepected of the ge of the lives
ke a comprein whole or [* (Leaf and
Ginn \& Co., nour's Select(lan) ; ThucyAgamemnon 1 Philoctetes* y, Clarendon Ittic Orators, omitting XX X (Bywater, in).
nd Exercises
's private reading

History, Literature and Antiquities.-Readings from Grote, Curtius, Mahaffy, Symonds, Murray ; Jebb's Growth and Influence of Classical Greek Poetry; Leaf's Companion to the Iliad: Butcher's Aspects of the Greek Genius : Mahaffy's Social Life in Greece : Jebb's Attic Orators.
Grammar and I'lilology.-Goodwin's Greek Moods and Tenses, and Giles's Short Manual of Philology, (Macmillan) ; Monro's Homeric Grammar (Clarendon Press.)

## Latin

I. In this class, besides a general review of grammatical principles (Sonnenschein's Latin Grammar; Parallel Grammar Series).portions of some Latin author such as Ovid, Tibullus, Livy, Sallust, Virgil, Horace or Cicero-are read and explained.

For 1897-98, the subjects will be Ovid, Metamorphoses VIII (Keene) : Cicero, Pro Lege Manilia (Wilkins, Macmillan) ; Virgil. Georgics I (Sidgwick, Pitt Press.) For practice in Composition, both written and oral, the text-book in use during the first two years will be Heatley's Latin Exercises (Longmans), with selected Passages for continuous Prose ; and for T'ranslation at Sight, Turner's Latin and Greek Passages (Longmans). History.-Carthaginian Wars, B. C., 263-146 (Shuckburgh's History of Rome).
2. For $1897-98$, the subjects will be :-

Summer Readings.-Cefar B. G. III (Peskett, Pitt Press). His-tory.-The last Century of the Republic, B. C., I33-31; Strachan Davidson's Cicero and Warde-Fowler's Cesar (Putnam) ; Beesly' 3 , The Gracchi, Marius and Sulla (Longmans' Epoch Series). Students are also recommended to work through some portion of Ramsay's Manual of Latin Prose Composition (Vol. I.).

Sessional Lectures.-Livy, I (Allen \& Greenough, Ginn) ; Virgil, Aeneid VII (Sidgwick, Pitt Press) ; Horacs, (Wickham's Selected Udes, Clarendon Press) ; Composition and Translation at Sight, Ramsay's Manual of Latin Prose Composition, Vol. I. (Clarendon Press) ; and Jerram's Anglice Reddenda (First Serics).

The following books are recommended for general use during the first two years of the course : Shuckburgh's History of Rome (Macmillan) ; Wilkins's Primer of Roman Literature, Wilkins's Primer of Roman Antiquities: Gildersleeve's Latin Grammar, Allen \& Greenough's, or Roby's.

Students should provide themselves also with Kiepert's Atlas Antiquus.

## Ordinary

First Year.

## Third

3. Subjects for 1897.98 .

Summer Readings.-Cicero, Pro Roscio Amerino (Donkin, Macmillan). History.-The Making of Rome (to 390 B. C.), Ihne's Early Rome (Epoch Series), and Shuckburgh's History. Literature.-Mackail's Primer of Roman Literature.
| Sessional Lectures.-Tacitus, Histories I (Davies, Pitt Press); Lucan, VII (Postgate, Pitt Press) ; Horace, Epistles II, Wilkins (Macmillan). The text-book for Composition will be Sargent's Easy Latin Prose Exercises (Clarendon Press) ; and for Translation at Sight, Fowler's Sportella (Rivingtons).

## Fourth

 Year.4. Subjects for 1897-98.

Summer Readings.-Virgil, Aeneid, I-III (Page, Macmillan, or Sidgwick, Pitt Press). History-Capes's Early Roman Empire (Longmans' Epoch Series) ; or Bury's History (John Murray), down to Domitian.

Sessional Lectures. - Cicero, Tusculan Disputations, Baok I; Juvenal Selected Satires (Hardy, Macmillan). Composition and Translation at Sight, as in the Third Year.

Note.- The following books are recommended for general use : Gow's Companion to School Classics (Macmillan) ; Mackail's Latin Literature (Murray) ; Pelham's Outlines of Roman History (Percival) ; Capes's Early Roman Empire (Longmans' Epoch Series); Inge's Roman Society in the First Century, A.D. ; Kiepert's Manual of Ancient Geography (Macmillan).
Honours.
Third 5. The books selected for class reading during session 1897-98 are
Year. the following: Cicero, Pro Milone (Reid, Cambridge Press) ; Lucretius ; I-III (Lee, Macmillan) Tacitus, Annals, Book I (Furneaux, Clarendon Press) ; Vikgil, Aeneid, Book XII (Sidgwick, Cambridge Press) ; Horace, Epistles, Book I (Wilkins, Macmillan) ; Martial (Selections: Stephenson, Macmillan).

For practice in Composition, written and oral, the manual used will be Nixon's Selections from Prose Extracts (Macmillan) ; for Trans. lation at ふight, Fox \& Bromley's Models and Exercises. Students are recommended also to provide themselves with Meissner's Latin Phrase-Book (tr. by Auden, Macmillan.) In History the examination will be directed to testing a general know'edge of the course of Roman History to the end of the First Century A.D., and a more minute knowledge of the period from B.C. I46 to the Death of Augustus. In Literature, a general knowledge will be expected of the course of Roman Literature, and a more minute knowledge of the lives and writings of the authors prescribed.
6. In this class, students will be expected to overtake a comprehensive programme of reading, such as the following, in whole or in

Fourth Year. part :-Terence, Fhormio (Sloman, Clarendon Press, Macmillan) ; Plautus, Rudens (Sonnenschein, Macmillan); Catullus (Simpson Macmillan) ; Cicero, de Oratore, Book I *(Wilkins, Macmillan) ; In Verrem II (Teubner text) ;Letters (Tyrrell, Macmillan) ; Horace Odes III and IV* (Page, Macmillan); Virgil, Aeneid IV-VI Sidg wick, Clarendon Press) ; Tisctes, Annals XIV-XVI (Furneaux. Clarendon Press) ; Dialogus de Oratoribus (Peterson, Clarendon. Press) ; Propertius IV (Postgate, Macmillan) ; Quintilian X* (Peterson, Clarendon Press--smaller edition).
'ranslation at Sight-Fox \& Bromley's Models and Exercises (Clarendon Press). Prose Composition.-Nixon's Prose Extracts; and Selected Passages.
IIistory, Literature, and Antiquities-Readings from Mommsen, Merivale, Sellar, Teuffel-Schwabe (translated by Warr) : Tyrrell's Latin Poetry ; Students Companion to Latin Authors (Middleton \& Mills, Macmillan).
Grammar and Philology.-Lindsay's Short Historical Latin Grammar, (Clarendon Press) and Giles's Short Manual of Philology (Macmillan) ; Lindsay's Textual Emendation (Macmillan).

## English Language and Literature.

Professor:-Chas. E Moyse, B.A
Lecturer in Rhetoric and English :-P. T. Lafleur, M.A. Ordinary
English Literature and Composition.-One lecture a week will be First Year. given to inctruction in the principles of English Composition. Regular exercises and themes will be required from all students. The remainder of the course will be occupied in the systematic study of masterpieces of English Literature. The course for 1897-98, will discuss the work of leading British Essayists from Bacon to Goldsmith. Two hours a week.
2. A course on Middle English. Chatcer, Prologue to the Canterbury Tales (Morris and Skeat, Clarendon Press) will be read in class, and used to illustrate the leading features of the development of the English Language. The life and thought of Chaucer's day will be touched on, and the social aspects of England illustrated by lantern slides. (To be taken with 3.) One hour a week.

[^1]Third Year.
Third 3. A course on Rheroric. Text-Book: Genung, Rhetoric. (To Year. be taken with 2.) One hour a week.
Fourth 4. A course on the leading poes of the nineteenith Century. The Year. chief aspects of the French Revolution will be considerd, and Republican feeling in England illustrated, chiefly from the works of Wordsworth, Coleridge and Southey. The indirect revolutionary poets Byron and Shelley will then be considered, and their typical poems, together with those of the poets already mentioned, critically examined. The remainder of the course will be given to scotr, Keats, Tennyson, Browning and Swinburne.-In the course for 1897-99, special attention will be given to Tennyson and Browning. One hour a week.
Private reading will also be required of the student, and the time to be given to this part of the subject may be regarded as equivalent to that required to obtain a good knowledge of the matter of the lectures.

Honours.
Fourth 5. Meso-Gothic. The course on Mœso-Gothic is intended to Year. open the way to the comparative study of allied Teutonic languages. Particular attention will be given to the phonological relations of Mœso-Gothic and Anglo-Saxon. Text book: The Gospel of St. Mark (Skeat, Clarendon Press). One hour a week.
Third
Year.
8. Anglo-Saxon. An elementary course on Anglo-Saxon. The

Year. object of the course is to make the student familiar with the grammar of the language and to enable him to read easy passages at sight. Leading features of Teutonic philology will be noticed when the text calls for them. Exercises in Anglo-Saxon scansion will form a part of the regular work of the class. Text-books : Sweet, Anglo-Saxon Primer and Anglo-Saxon Reader, Extt. IV-VIII, and the pieces in verse. Two hours a week.
Fourth 7. Anglo Saxon. Beowulp. The text will be read in class and
Year. illustrated by notes on origins, philology, and verbal emendations. Text-book: Harrison and Sharp (Ginn.) One hour a week.

Third Year.

8. Early and Middle English. The course is intended to give a knowledge of dialectal English, and to illustrate the changes which the language has undergone. Text-books: Morkis and skrat's Specimens, Part II, Extt. I-IX. Chaucer, Parlement of Foules. (Skeat, Minor poems of Chaucer, Clarendon Press.) One hour a week.
9. Early English. The course is a continuation of 8. Text-book: Morris and Skeat's Specimens, Part II, Extt. X-XX. One hour a week.

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10. Elizabethan and Early Stuart Periods. The general influences visible in the literature of the periods will be noticed by way of introduction to a critical examination of the following works which have been selected for private study: Spenser, Shepheards Calender (Herford, Macmillan) ; Faerie Queene, Bk. I. (Percival, Macmillan) ; Sidney, An Apology for Poetry (Cook) ; Milton, Shorter English Poems (Browne, Clarendon Press) ; and Areopagitica (Hates). One hour a week.
11. Shakspere. The social and literary conditions of Elizabethan England will be noticed, and the characteristics of the pre-Shaksperian drama specially illustrated. The following plays have been selected for special criticism and private study: Love's Labour Lost (Rolfe) ; A Midsummer Night's Dream (Deighton, Macmillan) ; Hamlet (Deighton, Macmillan) ; and the Tempest (Deighton, Macmillan). One hour a week.
12. Later Stuart Period. The method of io vill be followed. The works selected for private study are : Dryden, Annus Mirabilis, Absolom and Achitophel, Part I, the Preface to the "Fables" (Globe Edition, or for Absalom and Achitophel. Dryden's Satires, ed. Collins, Macmillan). Addison, Essays on Paradise Lost and on the Imagination (Spectator, ed. Henry Morley, Routledge). One hour a week.
13. Later Stuart Period. An introductory sketch of the critical and philosophical essayists in verse, leading up to a more minute examination of the following works of Pope, which have been selected for private study : Essay on Criticism, (Churton Collins, Macmihian) ; Essay on Man (Morris, Macmillan). One hour a week.
14. Period of Popular Influence. Influence of the French Revolution. The influence of the French Revolution on contemporn:y English Literature will be discussed. The following poems have been selected for special criticism and private study : Wordsworth, Preiude (Moxon's edition), and Campbell, Pleasures of Hope. One hour a week.
15. Modern Poets. An interpretation in detail of Tennyson's In Memoriam and a comparative criticism of other famous Englisn poems of the same class. An outline of the growth of the Arthur Saga and a special examination of Tennyson's Idylls of the King. Browning, Christmas Eve and Easter Day.

In addition to the poems just mentioned, Milton's Lycidas, Shelley's Adonais, and Matthew Arnold's Thyrsis have been selected for private study. One hour a week.

## Third Year.

## Fourth

 Year.
## Third Year.

## Fourth Year.

Third Year.

Note-Honou: students of the Third Year will privately study the following works, and write an essay on some topic arising from them : Burke, Reflections on the French Revolution ; Leslie Stephen, English Thought in the Eighteenth Century, Vol. II, chap. X, secs. V to X inclusive. The Essay will count in the awarding of honours.

Honour students of the Fourth Year will, in like manner, take the following: More, Utopia ; Matthew Arnold, Essays in Criticism (the Second Series).

Readings from authors who do not find a place in the above courses will be given by Prof. Moyse on Saturdays, at noon. The selections will be taken for the most part from writers of the present century. Attendance is voluntary.

## French.

> Lecturer in French :-M. Ingres, B-ès-Lettres. Sessional Lecturer :-J. L. Morin, M.A.

The earlier courses of instruction in French have been framed with the view of enabling the student to speak the language with facility and correctness. In the later courses, particular attention will be given to the style and substance of leading French writers, both in prose and verse, and also to the historical development of the French language and literature. Instruction will be given according to the natural method, the French language being exclusively used.
Ordinary

1. The following outline will indicate the character of the course. (a) The oral reproduction of stories by French writers of the present century, so selected as to bring out the national aspects of French life. In connection with this part of the work, words will be referced to groups and their formation noticed. (b) Biographical sketches of the leading writers of the present century, illustrate. by typical selections from their works, which will be read by the class, and committed to memory. Points of grammar will be treated incidentally, and the elements of French prosody taught. (c) Private Reading, the amount and character of which will be determined by the requirements of the individual student. The following works may be taken as specimens of the literature chosen for the class: E. Augier, Le Gendre de M. Poirier ; balzac, Le Curé de Tours; de Vigny, Cinq-Mars. In the examisation of the students of affiliated colleges the extracts given for translation from French into English will be taken, in part, from the three works mentioned above.

There will be regular exercises in dictation and composition. Students are recommended to use Le Dictionnaire L. ousse, (Paris edition.) Three hours a week.
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1position. ie, (Paris
2. The method of the course is the same as that of I , but the more advanced points of grammar will be treated, and in literature particular attention will be directed to characteristics of style.

The following works may be taken as specimens of the literatu:e cliosen for the class: V. Hugo, Notre Dame de Paris; Th. Gautier, Le Roman de la Momie ; Mme. de Stael, Corinne.

In the examination of the students of affiliated colleges the extracts given for translation from French into English will be taken, in part, from the three works mentioned above.

There will be regular exercises in dictation and composition. Students are recommended to use Le Dictionnaire Larousse.

Three hours a week.
3. A continuation of 2 . The form and origin of words will be treated more fully than in previous courses, and an outline of philology given. In the literary portion of the course the leading characteristics of the Classic, Romantic, Realistic, Impressionist and other schools will be described. Biographical sketches of writers who belong to the XVII and XVIII centuries will be given, and illustrated by typical selections from their works, which will be read in class and committed to memory. The following works of the same period have been chosen for private reading previous to their consideration by the class: B. de St. Pierre, Paul et Virginie; Voltaire, Siècle de Louis XIV; Rousseau, Emile, Le Contrat Social; Corneille, Le Cid, Horace, Cinna; Racine, Athalie, Phèdre, Andomaque; Molière, Tartuffe, Le Misanthrope, Le Bourgeois Gentilhomme; Mme, de Sévigné, Lettres; Bossuer, Discours sur l'Histoire Universelle; Oraisons funèbres; Pascal, Lettres provinciales.

There will be regular exercises in composition.
Two hours a week.
4. Important historical changes of various kind in the vocabulary of French will be noticed, and sentences presenting peculiar difficulties explained. The origin on the French language will be more fully treated, and French literature previous to Corneille read. Biographical sketches of leading writers of that period will be given, and typical selections from their works committed to memory. The following works have seen chosen for private reading previous to their consideration by the class: Montaigne, Essais, La Satire Ménippée ; Descartes, Discours de la méthode; Amyot, Traduction de Plutarque ; Calvin, L'Institution Chrétienne; Rabelais, Gargantua, Pantagruel; Comminer, Louis XI ; Joinville, Vie de Saint Louis; Froissart, Chroniques; Villehardouin, Chroniques.

There will be regular exercises in composition.
Two hours a week.

## Second Year.

Fourth Year.

Third 5. Grammar.-A course on French grammar treated historically.
Year. Students are recommended to consult the following works : Brachet, Grammaire Historique de la Langue Fransaise, Dictionnaire Etymologique ; Brunot, Grammaire Historique de la Langue Française; Clédat,Grammaire de la Vieille Langue Française; Littré, Histoire de la Langue Française. F. Brunetière, Etudes Critiques; G. Paris, La Littérature Française au Moyen Age.

Literature.-The student is expected to undertake a thorough study of the following works, portions of which will be read in class: Le Roman de la Rose; Le Roman de Renart; J. Bédier, Les Fabliaux ; Petit de Julleville, Les Mystères.

Two hours a week.
Fourth
Year.
6. A course in Old French. The student will be guided in a comparative study of the Romance languages, and will use the following works of reference: E. Renan, Essai sur la Poésie des Races Celtiques. Egger, l'Hellénisme en France; Roquefort, Glossaire de la Langue Romane ; Busgny, Grammaire de la Langue d’Oil ; Bréal, Grammaire comparée ; F. Diez, Grammaire des Langues Romanes ; Meyer-I.ubke, Grammaire des Langues Romanes.

The literary biography and history of the period will be treated, and in connection therewith the following works will be read :

Jean Bodel, Le Jeu de saint Nicolas ; Wace, Le Roman de Rou, Le Roman de Brut; la Chanson de Roland; La Vie de saint Alexis, La Vie de saint leger.

Two hours a week.

## German Language and Literature.

## Lecturer :-L. R. Gregor, B.A., Ph.D.

The ordinary Courses mainly keep practical ends in view. As far as possible they place the student at the German standpoint, so that he may study the language from within. Special attention is given to colloquial exercises in the First and Second Courses, to Literature in the Third and Fourth. The German Language is employed to a considerable extent in the First and Second Courses, and almost to the exclusion of English in the Third and Fourth. Importance is attached to correct and expressive reading. Classic texts are carefully studied, from the aesthetic and critical, as well as from the historical and linguistic points of view.
torically Brachet, Etymonçaise ; Histoire 3. Paris, gh study ass: LE bliaux ;
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1. The Joynes-Meissner German Grammar (Heath \& Co.) ; First Year. Freytag, Die Journalisten ; Uhland, Ballads and Romances (Macmillan) ; Baumbach, Der Schwiegersohn (Heath \& Co.) ; Colloquial exercises.

Three hours a week.
2. Vandersmissen and Fraser's German Grammar ; Schiller, Die Jungfrau von Orleans; Storm, Immensee (Heath \& Co.) ; Heine,

Second Prose (Selections.)

Two hours a week.
3. Schiller, Die Jungfrau von Orleans; Goethe, Iphigenie ; Heine, Die Harzreise ; German Granmar ; History of German Literature.

Two hours a week.
4. Benedix, Die Hochzeitsreise; Goethe, Egmont; Lessing, Nathan der Weise ; German Grammar ; German Compositions, with

Third Year. translation from English into German (Horning).

Two hours a week.
Lectures in this Course are given entirely in the German Lan- Honours guage. They reproduce the main features of the Ordinary Courses. In addition to this class of studies an account is given of the development of the German Language. Students are encouraged to undertake independent work, to write German compositions on literary subjects of especial interest to themselves. In order to obtain First or Second Rank Honours, candidates must also be capable of speaking German.

Honour Students of the Third and Fourth Years take lectures together. The order in which the following text-books are taken up is subject to re-arrangement :-

5a. A special study of Goethe's Faust (Part I) ; Goethe, Leiden des jungen Werther ; Selections from Herder's Volkslieder ; Macmillan's German Composition.
N.B.-The above constitutes the Additional course. See p. 4r.

5b. Gofthe, Egmont ; Lessing, Emilia Galotti; Extracts from Freytag's Bilder aus der deutschen Vergangenheit; Schiller, Don Carlos ; History of German Literature (Kluge) ; Historical Grammar.

6a. Iessing, Laokoon ; Behaghel, Deutsche Sprache; Grillparzer Sappho; Schiller, Die Braut von Messina; Marmillan's German Prose Composition.
N.B.-The above constitutes the Additional Course. See p. 50.

Third Year.

6b. Goethe, Sessenheim, (Heath \& Co.) ; Klopstock, Messias, (one canto) ; Wieland, Oberon (Selections) ; Sudermann, Die Ehre; Scheffel, Trompeter von Salkkingen, Selections from Heine's Lyrical Poems; Hartmann von Aue, Gregorius auf dem Steine ; Zarncke, Das Nibelungenlied. History of German Literature (Kluge); Original Compositions in German.
In order to obtain First or Second Rank Honours, a Candidate must be capable of speaking and writing German.

## Semitic Languages.

Professor:-D. Coussirat, B.A., B.D., D.D., Officier d'Academie.
The course comprises lectures on the above languages and their literature, their genius and peculiarities. Comparative philology, affinity of roots, etc., also receive due attention, while the portions selected for translation will be illustrated and explained by reference

Ordinary to Oriental manners, çustoms, history, etc.
First Year.

1. Hebrew Grammar (Inductive Method). Oral and written exercises in Orthography and Etymology. Translation and grammatical Analysis of the Old Testament. Text-books : Hebrew bible, Harper's Elements of Hebrew, Introductory Hebrew Method and Manual.
Two hours a week.
Second Year.
2. Hebrew grammar and translation continued. English rendered into Hebrew. Masoretic notes explained. The Hebrew text compared with the Septuagint and Vulgate Versions. Two hours a week.

Third
Year.
3. Hebrew Syntax. Translation of difficult passages of the Old Testament. Notes on the Masora and the Ta mud (Mishna and Gemara).
Two hours a week.
Fourth Year.
4. Translation continued. Characteristics of the Semitic Languages, particularly of aramaic, Syriac, Samaritan, Rabbinic, Arabic, Assyrian, Semitic Inscriptions. Two hours a week.
Honours.
Third 5a. Hebrew. Genesis. Isaiah, 40-66. Ecclesiastes. Literature.-F. Year. lenormant, The beginnings of History.

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Languages,
Rabbinic,

5b: Aramaic. - Daniel. Ezra. Selections from the Targums.
Literature,-sayce, Lectures on the Origin and Growth of Religion.
Two hours a week.
Ba. Hebrew.-Malachi, Psalms, 1-72 ; Job, 26-42. Literature.Renan, A General History of the Semitic Languages.

B6. Syriac.-Selections from the Peshito, and from the Chronicles of bar Hebreas, Literature,-W. Wright, Comparative Grammar of the Semitic Languages.
Two hours a week.
5b. and 6b. (Litcrature excepted) are the Additional Courses.

> History.
> Professor :-Charles W. Colby, M.A., Ph.D.

1. The Political History of Europe from 1789 to 1878.

Two hours a week.
The method of instruction followed in this course is topical rather than chronological. The lectures seek to present certain leading movements and tendencies in relief with a view to explaining the course of modern international relations. The most important subjects to be examined are the French Revolution, the growth of Democracy and Nationality, the Eastern Question, and the actual political state of the British Empire.
2. The German Inroads and the Middle' ies.

Three hours a week.
(Omitted in 1897-98.)

## 3. The Renascence and the Reformation.

Five hours a week during the last sixteen weeks of the session.
Beginning with Petrarch, the progress of Italian Humanism will be traced with some detail. Throughout the second term attention will be chiefly fixed upon the countries of northern Europe, although the part of Spain and Italy in the Counter Reformation will be dis-
rature.-F. cussed. The Lutheran schism will not be regarded in isolation, but

## Honours

Fourth Year.

Third and Fourth Years. in the light of the New Learning and 16th century politics. The spread of reformed doctrines will be followed out, and if time permits,
the culture of northern Europe during the 16th century will receive separate notice. The rapid growth of diplomatic intercourse during the Thirty Years War, and French advance towards the Rhine, will be the concluding subjects. It is hoped that the course may extend to the Peace of Westphalia.

4 Studies in the History of Iemocratic Institutions during the Middle Ages.

Five hours a week during the first eight weeks of the session.
Putting England aside, phases of popular government on the Continent will be studied. The treatment of these in class will not necessarily be consecutive, but attention will be confined to such topics as the Tribal Organization of the Germans ; the Communal Movement in (a), Northern France, (b) Lombardy, (c) Tuscany; the StatesGeneral ; the Cortes of Aragon; and the League of the Forest Cantons. Readings will be given from the text of the chief constitutional documents, and the bearings of mediaeval democracy upon feudalism will be particularly considered.
5. The French Revolution, $1789-95$.

Three hours a week.
(Omitted in $1897-98$. )
Note.-Courses 2 and 3 are given in alternate years. Courses 4 and 5 are given in alternate years.

Bibliographical lists relating to the historical courses given in 1897-98 may be had on application to the Secretary.

## Summer Readings.

Students who are devoting special attention to the literary branches of the University course are advised to read, during the long vacation, either the first or the second set of the subjoined selections.
I. Herodotus, VI-VIII, Macaulay's trans : Thucydides, I, II, i- 55 , VI, VII, Jowett's trans : Plato, the Republic, Jowett's trans: Plutarch, the Lives of Aristides, Themistocles, Pericles, and Timoleon, Clough's trans: Polybius, I, II, V, Shuckburgh's trans: Livy, XXI-XXII, Church and Brodribb's trans: Tacırus, Annals II, Germania, Vita Agricolae, Church and Brodribb's trans.
II. Clarendon, History of the Rebellion, Book XI; Gibbon Decline and Fall, Chaps. XLIV, L, LI, LXVI; Burke, Reflections on the French Revolution; Hallam. Middle Ages, Chap. III ; Macaulay, History of England, Chap.
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Gibbon Burke, Middle I, Chap.

III; Bagehot, The English Constitution; Stubbs, Select, Charters Introduction; Bryce, The Holy Roman Empire Chaps. I-XV ; Lord Acton, German Schools of History, English Historical Review, Vol. I. ; Matthew Arnold, Pagan and Mediaeval Religious Sentiment, in Essays in Criticism (First Series).

## Mental and Moral Philosophy.

Professor :-J. Clark Murray, LL.D. Lecturer :-P. T. Lafleur, M.A.

1. This course takes up in the first term the elements of Psychology, in the second the elements of Logic. Students are referred, among other works, to Murray, Handbook of Psychology, Book I., and to Jevons, Elementary Lessons on Logic.

Three hours a week.
2. In the first term the course takes up the Logic of Induction. Students are referred specially to Mill, System of Logic, Book III.

Two hours a week.
In the second term the course takes up the most interesting problems in the Psychology of Cognition, tracing, as far as possible, the principal stages in the evolution of intelligence. The general problem, also, of the nature of knowledge is discussed, in view of the light which it throws on the ultimate nature of reality. Students are referred, among other works, to Murray, Handbook of Psychology, Book II., Part 2. Students are also required to write an essay on some philosophical subject.

Two hours a week.
This course is devoted entirely to Moral Philosophy, and follows, in its general outline, the subjects discussed in Murray's Introduction to Ethics. Students are also required to write essays on ethical questions.

Three hours a week.
4. This course is devoted mainly to the history of Greek Philosophy. It begins with the colonial period, during which philosophical activity was most energetic among the colonies of the Greeks in Asia Minor and Italy. It then passes on to the Athenian period, beginning about the middle of the fifth century, B.C., when Philo-

## Ordinary

Second Year.

Third Year.

## Fourth

 Year.Honours, Third Year.
sophy found a home in the greatest centre of intellectual life in the ancient world. A third period is then described, during which Philosophy extends its culture over ancient life by the spread of the great schools, especially the Stoical and the Epicurean, which arose towards the end of the fourth century, B. C. Finally, some account is given of the movement, of which Alexandria was the centre, and by which Greek Philosophy was brought into contact with Oriental thought. The history is carried down to the closing of the Pagan Schools in Athens by the Emperor Justinian. Occasional lectures are also given on the other special studies of the Third Year Honour Course. Students are expected to make an independent study of the fragments of one of the early philosophers, and to write an essay embodying the results of their study.

Two hours a week.
The subjects of examination will be, in addition to the lectures, the following :-

Part I.-Schwegler's History of Philosophy, Chapters I-2I inclusive ; Mill's System of Logic, Books IV. and V.; James' Principles of Psychology, Chapters io-16 inclusive; selected portions from Thomson's Outline of the Laws of Thought, from Jevons' Principles of Science, and from Venn's Empirical Logic. Any two of these subjects, along with the Honour Lectures, may be taken as the Additional Course.
Part II.-Plato's Theaetetus (by S. W. Dyde) ; Fraser's Selections from Berkeley.

## Fourth Year.

5. The lectures of this Year form two courses. One is devoted to the earlier period of Modern Philosophy. After sketching the transition from Mediaeval to Modern thought, the course gives some account of the Empirical movement started in England by Bacon and Hobbes, and developed by Locke and his school. The Idealistic tendency of speculation during this period is sketched mainly in three movements:-that which began in England with the Cambridge Platonists, and culminated in Berkeley; the German movement originated by Leibnitz, and formulated by Wolf ; the Cartesian movement which culminated in Spinoza. The course closes with a lengthy exposition of Kant's three Critiques.

First term, two hours a week; second term, one hour a week.
6. The other course is on the History of English Philosophy from Hartley to Herbert Spencer. The lectures discuss the chief characteristics of English thought during the last one hundred and fifty
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years, more particularly as shewn in the works of English psychologists and political writers during that time. The writers to whom special attention is given are: in Psychology-Priestley, Hartley, Erasmus Darwin, the two Mills, Bain, and Herbert Spencer; in Political and Social Science-Burke, Paine, Godwin, Paley, Bentham, Malthus. References are also made to minor writers, whose work may be deemed to be of sufficient importance in the general movement and development of philosophy. No text-book is specially recommended; but the student is expected to read appointed selections from the writers under discussion, as well as to consult Leslie Stephen's History of English Thought in the Eighteenth Century, and a few chapters in Lewes' History of Philosophy. The principal points emphasized in the lectures are the empirical character of the English school in phychology and metaphysics, and the practical, utilitarian views of English political writers.

Second term ; one hour a week.
Students are expected to write an essay exhibiting an independent study of one of the modern philosophers.

The subjects of examination, in addition to the lectures, will be the following :-
Part I.-Erdmann's History of Philosophy, Vol. II. (Engl. Transl.); James' Principles of Psychology, Vol. II. ; Spencer's First Principles; Watson's Comte, Mill and Spencer, an Outline of Philosophy ; Mill's System of Logic, Book VI. Any two of these subjects along with the Honour Lectures may be taken as the Additional Course.
Part II.-Aristotle's Nicomachean Ethics ; Zeller's Stoics, Epicureans and Sceptics; Spinoza's Ethics; Watson's Selections from Kant ; Maine's Ancient Law.

> Mathematics and Astronomy.
> Professor :-Alexander Johnson, M.A., LL.D. Sessional Lecturer:-Rev. H. M. Tory, B.A.

1. Mathematics-Arithmetic.-Euclid, Books, i, 2, 3, 4, 6 (omitting propositions $27,28,29$ ), with definitions of Book 5, Todhunter's edition, or Hall and Stevens'; the latter is recommended to Candidates for Honours especially. Colenso, Algebra (Part I.) to end of Quadratic Equations. - Galbraith and haughtos, Plane Trigonometry to beginning of solution of Plane Triangles. Three hours a week.

Second Year.
2. Mathematics-Ar̊ithmetic, Euclid, Algebra and Trigonometry as before.-Nature and use of Logarithms.-Remainder of Gal. braith and Haughton's Plane Trigonometry. One hour a week.
Third Year 3. (Optional, but open to those only who have studied Mathematical Physics). - Astronomy-Lockyer, Elementary Astronomy, English edition ; first five chapters, viz.: The Stars and Nebulae ; The Sun ; The Solar System ; Apparent movements; Time). Students are recommended to use with this an "Easy Guide $t$ ) the Constellations," by Gall. This subject is taken with Optics. Hours to be arranged.
Fourth Year.
4. Astronomy. - (Optional) Galbraith and Haughton's Astronomy or Brinkley by Stubbs and Brunnow.-This subject is taken with Optics as one course. The lectures will be given before Christmas.
First term ; two hours a week.

## Mathematics and Physics.

Professors (Mathematics) :-A. Johnson, M.A., LL.D.
" (Physics) :-John Cox, M.A.
" " H. L. Callendar, M.A.
Sessional Lecturers (Mathematics, First Year) :-Rev. H. M. Tory, M.A.

Demonstrators in Physics :-Rev. H. M. Tory, M.A., and F. H. Pitcher, B.A.Sc.

Honours. First Year.
5. Mathematics.-Hall and Stevens, Euclid; Casey, Sequel to Euclid; Hall and Knight, Advanced Algebra; Todhunter or Burnside and panton Theory of Equations (selected course). Two or three hours each week.
Second 6. Mathematics.-Lock, Higher Trigonometry, with McClelland Year. and Preston, Spherical Trigonometry, Part I.; Salmon, Conic Sections, chapters $1,2,3,5,6,7$, and 10 to 13 inclusive ; Williamson, Differential and Integral Calculus (selected course).
Three hours a week.
Third Year 7. Mathematical Physics, - Minchin, Statics, Vol. I. (selected chapters) ; Williamson and Tarleton, Dynamics, Chaps. I to 8 inclusive ; Besant, Vol. I., Hydro-Mechanics, Part I., chaps. 1, 2, 3, 7 ; Parkinson, Optics.
Two hours a week.
8. Mathematics.-Williamson, Differential and Integral Calculus and Boole or Forsyth, Differential Equations, or Salmon, Geometry of Three Dimensions, (alternate years).

Astronomy.-Godfray.
Two hours a week.
Experimental Physics.-Courses 4 and 6.
©. Mathematics.-Williamson, Differential and Integral Calculus; Salmon, Conic Sections; Salmon, Geometry of Three Dimensions (course selected in text-book); Boole or Forsyth, Differential Equations (selected course).
10. Physical Astronomy.-Godfray, Luna: Theory; or Cheyne, Planetary Theory; or the Theory of the Tides; Newton, Principia, Lib. I., secs. 9 and II, with the necessary preliminary propositions.
11. Mathematical Physics.-Minchin, Statics, Vol. II., selected chapters: „Williamson and tarleton, Dynamics; Routh, Dynamics of a Rigid Body (for reference) ; Besant, HydroMechanics; Freston, Theory of Light ; Cumming, Theory of Electricity.
Experimental Physics.-Courses 5 and 7.

## Natural Philosophy.

Professors :- $\left\{\begin{array}{l}\text { John Cox, M.A. }\end{array}\right.$ Demonstrators : \(-\left\{\begin{array}{l}Rev. H. M. Tory, M.A.<br>F. H. Pitcher, B.A.Sc.<br>Howard T. Barnes, M.A.Sc.\end{array}\right.\)

## I. Mathematical Physics.

1. Elementary Mechanics. One hour a week up to February. An introduciory course, without Text-book, developing the fundamental principles of Mechanics. One hour a week.
2.' Mechanics and Hydrostatics; Text-book, Loney, Mechanics and Hydrostatics for Beginners.
Two hours a week till January.
2. Optics; Text-book, Galbraith and Haughton.

Two hours a week, from January to end of Session.

Ordinary
Second Year.

Third

Third Year.

## II. Experimental Physics.

Third Year.

Fourth Year.

Third Year.

Fourth Year.
4. Laws of Energy, Sound, Light and Heat. Text-book, Ganot

Physics. Lectures fully illustrated.
Two hours a week.
5. Electricity and Magnetism. Text-book, Ganot, Physics. Lectures fully illustrated.

Two hours a week.

## III. Laboratory Courses.

In Experimental Physics, requiring three hours per week to be spent in practical measurements in the McDonald Physical Laboratory, during the Third and Fourth Years, in conjunction with the Lecture Courses 4 and 5 .
6. (a) Sound-Velocity of Sound; Determination of rates of vibration of Tupning Forks; Resonance; Laws of vibration of strings.
(b) Light-Photometry ; Laws of Reflection and Refraction; Indices of Refraction ; Focal Lengths and Magnifying Powers of Mirrors, Lenses, Telescopes and Microscopes; the Sextant, Spectroscope, Spectrometer, Diffraction Grating, Optical Bench, and Polariscopes.
(c) Heat-Construction and Calibration of Thermometers; Melting and Boiling Points ; Air Thermometer ; Expansion of solids, liquids, and gases ; Calorimetry.
7. Magnetism - Measurements of Pole Strength and Moment of a Magnet ; the Magnetic Field; Methods of Deflection and Oscillations ; comparison of moments and determination of elements of Earth's magnetism. Frictional Electricity. Current Electricity.-Complete course of measurements of Current Strength, Resistance and Electromotive Force ; Calibration of Galvanometers; the Electrometer ; comparison of Condensers; Electromagnetic Induction.

Text-Book.-Glazebrook and Shaw, Practical Physics.
N.B.-For Advanced Courses intended for Electrical Engineering Students and Graduates pursuing the study of Physics, see Calendar, Faculty f Applied Science.

## 25

## Ohemistry and Mineralogy.

> Professor of Chemistry :-B. J. Harrington, M.A., Ph.D.
> Lecturer:-N. Norton Evans, M.A.Sc.
> Demonstrator :-Alex. Brodie, B.A.Sc.

1a. General Chemistry (Optional).-A course of lectures on elementary chemical theory, and on the principal elements and their compounds. The lectures are fully illustrated by means of experiments, and are supplemented by tutorial classes.

Two hours a week.
Text-Book:-Remsen's Introduction to the Study of Chemist $y$.

1b. Elementary Practicai. Chemistry.-Experiments in connection with the above course of lectures performed by the students, and elementary Qualitative Analysis. This class is intended for students in Applied Science, but a few Students in Arts may be admitted.

One afternoon a week.
2. Inorganic Chemistry (Advanced and Optional).-The Chemistry of the principal electro-positive elements and their compounds. (Arrangements may be made for this Course for Session 189798.)
3. Organic Chemistry. - Lectures, with occasional demonstrations, on the analysis of organic bodies, calculation of formulae, determination of molecular weights, polymerism, isomerism, etc., followed by a discussion of some of the more important Methane derivatives and their construction. Students intending to enter the Medical Faculty, would find these lectures and the laboratory work connected therewith of great advantage.
One hour a week.
4. Organic Chemistry -Lectures in continuation of those in Course 3, discussing some of the principal Benzene and Pyridine derivatives. Students should have previously taken Course 3.

One hour a week.
5. Analytical Chemistry (Qualitative).-A systematic study of the Third Year more important bases and acids, including their detection and separation. The laboratory work is accompanied by explanatory lectures.

Ordinary
First Year

Second Year.

Third Year

Fourth Year.

Text-book.-Qualitative Chemical Analysis, by Arthur A. Noyes.
Six hours a week.

## Fourth Year.

Third Year

Honours.
Third Year
8. Mineralogy.-Lectures and demonstrations illustrated by models and specimens in the Peter Redpath Museum. Among the subjects discussed are: Crystallography ; physical properties of minerals dependent upon light, electricity, state of aggregation, etc. ; chemical composition, calculation of mineral formulae, quantivalent ratios, etc. ; principles of classification, description of species.

First term, one hour a week ; second term, two hours a week.
Fourth
Year.
9. Mineralogy. (In continuation of No. 8.).-Description of species, particular attention being paid to those which are important as rock constituents and to the economic minerals of Canada.

First term, two hours a week.
Third Year 10. Determinative Mineralogy.-Laboratory practice in blowpipe analysis and its application to the determination of mineral species.

Thursday, 2 to 5 p.m.

## Botany.

6. Analytical Chemistry (Quantitative).-Laboratory practice in methods of gravimetric, volumetric and electrolytic Quantitative Analysis. The course is open to those who have taken No. 5 .

Text-book.-Clowes \& Coleman's Quantitative Analysis.
7. Physical Chemistry (Optional).-A course of lectures on Stæchiometry and Chemical Affinity. Special attention is directed to those parts of the subject which have a direct bearing on the processes of practical chemistry, such as the modern theories of solution and electrolytic dissociation.

One hour a week.

Ordinary

## Second Year.

Thira Year

1. General Morphology. This course is designed to give a thorough general knowledge of the principles of General

Professor :-D. P. Penhallow, B.Sc., M.A.Sc. Lecturer :-C. M. Derick, M.A. Morphology and Classification. It comprises :

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(a) Determination of species from both dry and fresh materials; type studies of Spermaphytes, Pteridophytes, Brophytes, and Thallophytes, with reference to their life histories. Gray's Structural Botany, Gray's Manual, Penhallow's Outlines of Classification, and Botanical Collector's Guide.
First term, three hours a week.
(b) General Morphology and Classification; elements of Histology and Physiology ; Biological relations of plants; Geographical Botany.
Second term, two hours a week.
2. Advanced Anatomy. This course, open to students who have taken Botany I , is designed to give an extended knowledge of vegetable anatomy. It comprises :-
(a) Optics and construction of the microscope ; determination of amplifications ; micrometry ; drawings ; section cutting ; preparation of microscopic objects ; micro-chemical reactions ; study of cell contents and tissues, comparative studies of type forms of angiosperms and gymnosperms. Four hours a week.

* (b) A continuation of the course in the Third Year. Critical studies of the structure and development of the Pteridophyta, Bryophyta, Thallophyta and Protophyta.
Four hours a week.
* Students satisfactorily completing this course, will be eligible to the occupation of an investigator's table held by the University at the Wood's Holl Biological Laboratory.

The fee for the Session in each of the above courses, viz. 2 (a) and 2 (b) is \$10. Students are required to supply their own slides and cover glasses.

## Zoology.

Professor :-
3. This course will include lectures on elementary Physiology based on Huxley's lessons; a general account of Embryological development ; the morphology and classification of the Invertebrata, with a general description of their modes of life, etc. ; and the comparative anatomy with the classification of the Vertebrata. As far as posi ible, the Canadian Fauna will be referred to in the descriptive lectures, which will be illustrated by concurrent demonstrations of microscopical, moist and dry preparations, with dissections of all the leading types. Students have access also to Leukart's charts.
Two hours a week, apart from demonstrations.

Third Year.

Fourth Year.

Text_Books.-Thomson's Outlines of Zoology, Dawson's Handbook (for Canadian reference).

Fourth 4. The preparation and study of animal tissues microscopically. Year. This includes kiliing, hardening, sectioning, staining, mount-

Additional Course. ing, etc. Practical Anatomy, with lectures. The animals dissected will be representative types both Vertebrate and Invertebrate.

Text-Book.-Marshall and Hurse's Practical Zoology. Additional fee of $\$ 10$.
N.B.-Students desiring to take Geology in the Fourth Year are recommended to take Zoology in the Third Year.

## Geology and Palæontology.

Fourth Year.
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3. Paleontology.-An extension of the Palaeontology of Course I, with special studies of some of the more important groups of fossils.

One lecture a week during the second term and one demonstration a week, with special studies in the Peter Redpath Museum.

Books of Reference.--Nicholson and Lydekker, Manual of Palaeontology ; Williams, Geological Biology.
4. Practical and Applied Geology.-A description of the methods employed in observing and recording geological facts, concluding with a general treatment of the nature and mode of occurrence of Ore Deposits.

One lecture and one demonstration a week during first term.
Text-books.-Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States.
5. Canadian Geology.-A general description of the Geology and Mineral Resources of the Dominion.

One lecture a week during the second term.
Text-book.-Dawson, Hand-book of Geology.
Books of Reference.-The Reports of the Geological Survey of Canada.
6. Geological Colloquium.-A discussion each week of some Geological topic, references to the literature of which have been given by the Professor in the week preceding. The course is intended to give students some acquaintance with Geological literature, as well as a wider knowledge of the great principles which underlie the Science.

One hour a week in second term.
Additional private reading will also be required of Candidates for Honours.
Students taking any of these courses are entitled to tickets of admission to the Museum of the Natural History Society of Montreal.

## Meteorology.

Superintendent of Observatory :-C. H. McLeod, Ma.E.
Instruction in Meteorological Observations will be given in the Observatory at hours to suit the convenience of the senior students.

Certificates will be granted to those students who pass a satisfactory examination on the construction and use of Meteorological instruments and on the general facts of Meteorology.

Fourth Year.

Fourth Year.

## Fourth

 Year.
## Pedagogy.

Principal of the Normal School:-S. P. Robins, M.A., LL.D.
Lectures on this subject will be given in the Normal School to undergraduates of the Third and Fourth Years who wish to obtain the Provincial Academy Diploma.

Lecture hour : 3 p.m., Tuesday and Friday.

## Elocution.

Instructor:-J. P. Stephen.
Instruction is given in this subject at hours that may be settled at the beginning of the session.

## Physical Culture.

Medical Examiner and Instructor :-R. Tait McKenzie, B.A., M.D.
The classes will meet at the University Gymnasium, at hours to be announced at the commencement of the Session. The Wick steed Silver and Bronze Medals (the gift of Dr. R. J. Wicksteed) are offered for competition to students of the Graduating Class and to students who have had instruction in the Gymnasium for two sessions,-the silver medal to the former, the bronze medal to the latter. (See Regulations appended.)

## LECTURES IN THE UNDERGRADUATE COURSE IN THE FACULTY OF ARTS. <br> Session 1897-98.

| vears | Hours. | Monday. | Tugsday. | Wednesday. | Thursday. | Friday. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 9 | Greek. | $\dagger$ Mathematics. | Mathematics. | $\dagger$ Mathematics. | Mathematics. |
|  | 10 | Mathematics. Latin. (1) | Greek. | Latin. | Hebrew. French. | Greek. |
|  | 11 | French. | German. | German, | German. | English. |
|  | 12 | Chemistry. | Hebrew, French. | English. | Latin. | Chemistry. |
|  | 2 | Practical Chemistry. (1) Latin. (2) | Practical Chemistry. (2) |  |  | Practical Chemistry. (3) |
|  | 3 |  |  |  |  |  |
|  | 4 |  |  |  |  |  |

## TIME TABLE.-Continued.

A., LL.D. jchool to to obtain

| years | Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 9 | French German. |  | French. | Hebrew. German. | French. |
|  | 10 | Greek. |  | Logic. | Logic. +1 | $\dagger$ Mathematics. |
|  | 11 | Mathematics. | Latin. | Botany. <br> $\dagger$ Mathematics. | Latin. | Greek. |
|  | 12 | $\begin{gathered} \text { Botany. } \\ \dagger \text { Mathematics. } \end{gathered}$ | Greek. | Latin. | Mod. History. | Mod. History. |
|  | 2 | Math. Phys. |  |  |  |  |
|  | 3 |  |  |  |  |  |
|  | 4 |  |  |  |  |  |
|  | 9 | English. | †Mineralogy (b) Greek $\dagger$ Math. Phys.Hebrew | $\dagger$ English. tGreek. | $\dagger$ English. 1Math. Physics. | $\dagger$ Engl. $\uparrow$ Math German. $\dagger$ Mineralogy. |
|  | 10 | $\dagger$ Mental Phil. $\dagger$ English. $\dagger$ Latin. Chaldee. | French. Latin. | Math, Physics. Chaldee. | French. Chemistıy. | Rhetoric. |
|  | 11 | $\dagger$ Greek. Metaphysics. | Zoology. | Metaphysics. $\dagger$ French. | Zoology. | Math.Physics $\dagger$ French. |
|  | 12 | Latin. | Exp. Physics. $\dagger$ Latin. | Greek, <br> $\dagger$ Mathematics. | Hebrew, Exp. Physics. | Latin. |
|  | 2 | $\dagger$ Greek. <br> Pract. Chem <br> $\dagger$ History. | Botany. | Pract. Chem. | +English. Dec. Mineralogy. + Latin. | Botany. |
|  | 3 |  | $\dagger$ French. | German. | $\dagger$ History |  |
|  | 4 | $\dagger$ German. | +History. |  | $\dagger$ Mental Phil. $\dagger$ German. | $\dagger$ History |
|  | 9 | Exp. Physics. | Mineral. (a) Astronomy (a) $\dagger$ Engl Hebrew | Geology. Syriac. | Exp. Physics. $\dagger$ tirench. | Latin.$\dagger$Mathematics. <br> German.. |
|  | 10 | Geology. Syriac. $\dagger$ Latin. | FrenchLatin. | $\begin{aligned} & \text { Latin. } \\ & \text { †English. } \\ & \text { tFrench. } \end{aligned}$ | English Lit. | $\begin{aligned} & \text { Geo. + Eng. } \\ & \text { † Math. Phys. } \end{aligned}$ |
|  | 11 | Greek. <br> $\dagger$ Engli-h. <br> †Geology. | Moral Phil. $\dagger$ Latin. | Greek. <br> $\dagger$ Mineralogy. (a) | Moral Phil $\dagger$ Greek. | French. $\dagger$ Geology. |
|  | 12 | Moral Phil, †Greek. | Organic Chem | $\dagger$ Mathematics. <br> $\dagger$ Geol.(b) $\dagger$ Greek Miner, Demons | Hebrew. Astronomy.(a) | $\begin{aligned} & \dagger \text { Mental Phil. } \\ & \dagger \text { English. } \end{aligned}$ |
|  | 2 | Pract. Chem. $\dagger$ History. | Botany. | $\dagger$ History. Pract. Chem. | Pract. Chem. | Botany. |
|  | 3 |  |  | German. | $\dagger$ History. | $\dagger$ Mental Phil. |
|  | 4 | $\dagger$ German. | $\dagger$ History. |  | $\dagger$ German. | $\dagger$ History. |

(a) During First Term. (b) Second Term. † For Candidates for Honours,

The Chemical Laboratory is open every day (except Saturday) from 9 a.m. to $5 \mathrm{p} . \mathrm{m}$ Practical Chemistry First Year with the Class in Applied Science.

Practical Physics: Third Year, Monday, io a.m. to 5 p.m., or Friday, 2.30 p.m, to $5.30 \mathrm{p} . \mathrm{m}$. ; Fourth Year, Wednesday, $2.30 \mathrm{p} . \mathrm{m}$. to $5.30 \mathrm{p} . \mathrm{m}$.

The Botanical Laboratoribs are open daily from 9 a.m, to 5 p.m. Saturday Classes in General Morphology (2nd Year), i1 a.m. to I p.m.

## Zoology: Demonstrations on Saturday Forenoons.

N.B.-The hours in this table are subject to alteration during the session.

## III. UNIVERSITY BUILDINGS, Etc.

## The University Library.

The various libraries of the University now contain about 64,000 bound volumes, besides many valuable pamphlets.

The books have been selected with a view to illustrating the various courses of University study. They are, therefore, to a considerable extent, general in character ; and the Committee endeavours to provide for the symmetrical growth of the entire library.

There are, however, several large special collections, besides the departmental libraries. The late Mr. Peter Redpath was, for years before his death, engaged in forming the Redpath Historical Collecrion, which is now of great value, and affords unusual opportunities for the study of English History. An important feature of this collection is a series of 3,500 political and religious tracts, which date from 1601 to about the middle of the present reign.

Abundant materials, bearing upon the History of Canada, have been gathered together. Of these the nucleus is formed by the entire library of the late Mr. Frederick Griffin, whose choice books were, some years ago, bequeathed to the University. This branch of the library is being steadily augmented.

The Medical Library, directly controlled by the Faculty of Medicine, is the largest of the departmental libraries, and is one of the most complete collections of its kind in the Dominion.

About 160 current periodicals, literary and scientific, are subscribed for through the various departments of the University. Besides these, the library regularly receives many Serials, Transactions and Proceedings of Societies. The list of both periodicals and serials is being extended yearly.

A new Card Catalogue of the entire library has been for some time in hand, but is not as yet complete.

In the autum of 1893 , the general library was moved to the noble building erected by the late Mr. Peter Redpath. The building affords ample accommodation for two hundred readers, the reading room being exceptionally spacious and convenient. The reading room is open in the evening, and contains a reference library, and leading English and Foreign periodicals.

Although the library is maintained primarily for members of the University, the Corporation has recently provided for the admission, upon certain conditions, of such persons as may be approved by the Library Committee. It is the desire of the Committee to make the library as useful to the entire community as is consistent with the safety of the books and the general interests of the University.

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## EXTRACT FROM THE LIBRARY REGULATIONS.

I. During the College Session the Library is open daily (except Sundays and general public holidays), from 9 a.m. till 5 p.m. ; and the Reading Rooms from 9 a.m. till 6 p.m., and also from 8 till 10 p.m. On Saturdays, both Library and Reading Rooms close at 5 p.m. During vacations, both Library and Reading Rooms close at 5 p.m., and on Saturdays at I p.m.
2. Students in the Faculty of Arts, of Law, or of Applied Science may borrow books on depositing the sum of $\$ 5$ with the Bursar, which deposit, after the deduction of any fines due, will be repaid at the end of the Session on the certificate of the Librarian that the books have been returned uninjured.
3. Students in the Faculties of Medicine, or Comparative Medicine, who have paid the Library fee to the Bursar, may read in the Library, and on depositing the sum of $\$ 5$ with the Bursar, may borrow books on the same conditions as Students in Arts. They are required to present their Matriculation Tickets to the Bursar and to the Librarian.
4. Graduates in any of the Faculties, on making a deposit of $\$ 5$, are entitled to the use of the Library, subject to the same rules and conditions as Students, but they are not required to pay the annual Library fee.
5. Books may be taken from the Library only after they have been charged at the Delivery Desk ; borrowers who cannot attend personally must sign and date an order, giving the titles of the books desired.
6. Books in the Reference Library must not be taken from the Reading Room ; and, after they have been used, they must be returned promptly by readers to their proper place upon the shelves.
7. Before leaving the Library, readers must return the books they have obtained, to the attendant at the Delivery Desk.
8. All persons using books remain responsible for them, so long as the books are charged to them, and borrowers returning books, must see that their receipt for them is properly cancelled. Damage to, or loss of books shall be $m$ de good to the satisfaction of the Librarian and of the Library Committee. Writing or making any mark upon any book belonging to the Library is unconditionally forbidden. Any persons found guilty of wilfully damaging any book in any way shall be excluded from the Library, and shall be debarred from the use thereof for such time as the Library Committee may determine.
9. Should any borrower fail to return a book upon the date when its return is due, he may be notified by postal card of his default, and be requested to return the book. If the loan is not renewed, or the book returned, after a further delay of at least three days, it may be sent for by special messenger, at the borrower's expense.
10. Before the close of the session, Students in their final year shall return uninjured, or replace to the satisfaction of the Librarian, all books which they have borrowed.
11. Silence must be strictly observed in the Library.

## The Peter Redpath Museum.

This building was erected in 1882 by the liberal benefactor whose name it bears. It occupies a commanding position at the upper end of the campus, and besides its central hall and other rooms devoted to the collections, contains a large lecture theatre, class-rooms and work-rooms.

The general arrangement of the collections is as follows :-

1. The Botanical Room on the ground floor contains the Herbarium, consisting of 25,000 specimens of Canadian and exotic plants, and collections illustrating structural and economic botany.
2. On the first floor is a room over the entrance hall, in which are cases containing Archaeological and Ethnological objects, with large slabs of fossil foot-prints on the walls.
3. This room opens into the great Musuem Hall, on either side of which are alcoves with upright and table cases containing the collections in Palaeontology, arranged primarily to illustrate the successive geological systems, and subordinately to this, in the order of zoological and botanical classification, so as to enable the student to see the general order of life in successive periods, and to trace any particular group through its geological history.
4. At the extreme end of the Hall are placed the collections of Minerals and Rocks, arranged in such manner as to facilitate their systematic study. In the centre of the Hall are economic collecti is and large casts and models.
5. In the upper story or gallery of the great Hall are placed the zoological collections-the invertebrate animals in table cases in regular series, beginning with the lower forms, the vetebrate animals in upright cases, in similar order. The Philip Carpenter Collection of shells is especially noteworthy for its arrangement and completeness.

Details as to the several departments of the Museum are given in
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the "Museum Guide," and papers or memoirs relating to type specimens in the collections can be obtained from the Museum Assistant. Tickets are issued to students by the Professors in charge of the several departments, and classes of pupils from schools can be admitted on certain days, under regulations which may be learned from the Professors or from the Secretary of the University.

## The Macdonald Physics Building.

The McDonald Physical Laboratory contains five storeys, each of 8,000 square feet area. Besides a lecture theatre and its apparatus rooms, the Building includes an elementary laboratory nearly 60 feet square ; large special laboratories arranged for higher work by advanced students in Heat and Electricity ; a range of rooms for optical work and photography ; separate rooms for private thesis work by Students ; and two large laboratories arranged for research, provided with solid piers and the usual standard instruments. There are also a lecture room, with apparatus room attached, for Mathematical Physics, a special physical library, and convenient workshops. The equipment is on a correspoi ting scale, and comprises: (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by the Students in practical work; (3) the most recent types of all important instruments for exact measurement, to be used in connection with special work and research.

The following extract made from the report for the year 189495 of the Physics Building Committee will indicate the general nature and extent of the equipment.

Resistance Standards.-There are thirty standard resistance coils of various patterns, including the B.A., the Board of Trade and the German, with a few others, ranging in value from 1,000 ohms to one ten-thousandth, and adapted for various different purposes. These have been tested and compared, and their values are found to agree as closely as could be expected with the Cambridge certificates, and those of the Reichsanstalt and the makers. The temperature coefficients of a few have also been determined. The comparisons have been made chiefly with Nalder's pattern of the Carey-Foster Bridge.

There is also a duplicate of the Fleming Bridge used at Cambridge, presented by the Duke of Devonshire.

Resistance Boxes.-The collection of resistance boxes includes almost all the best types. There is a Thomson-Varley slide-box by Nalder, which has proved extremely useful and accurate. Among the other boxes, may be mentioned : two megohm boxes and fou: $100,000 \mathrm{ohm}$ boxes of different patterns ; a four dial and a six dial
P. O. box ; and a bar-dial box of Professor Anthony's pattern ; also a compensated resistance box with mercury contacts, reading from 0 to 50 ohms continuously by the Carey-Foster method; this is extremely useful for the accurate determination of resistances which cannot be made up of any simple combination of standards, and has been accurately calibrated throughout.

For the comparison and determination of small resistances, there is a Kelvin conductivity bridge and a Lorenz apparatus, with the improvements made by Prof. V. Jones, which is now being comp'eted under his supervision.

Current Standards.-There is a Kelvin composite balance, which can also be used as a voltmeter, and wattmeter, and two Siemens dynamometers. The constants of these have been determined by the voltametric method, and found to be accurate to one-half of one per cent. They have been used for calibrating common types of alternate current instruments. There is also a set of 4 large storage cells with convenient commutators and resistances for furnishing large steady currents for the testing of ammeters and low resistances and for other purposes, This equipment is similar to that in use at the Board of Trade in England and in the laboratories of some leading instrument makers.

As an absolute current standard there is a duplicate of the Weber electro-dynamometer made by Latimer Clark for the Committee of the British Association, the coils of which were wound by Clerk Maxwell, and used by Lord Rayleigh in his standard experiments. The coils of this instrument have been rewound and measured, and it is proposed to use it for an absolute determination of the E. M. F. of a Clark Cell.

Insulation and Capacity Tests.-For these and other tests there is a suitable collection of delicate reflecting galvanometers of the astatic, ballistic, differential and D'Arsonval types. The most delicate of these has a resistance of 110,000 ohms, and a figure of merit of upwards of 60,000 megohms with a 20 second swing.

There are eight quadrant electrometers of different types, the chief of which have been set up and used for various insulation and other tests. There is also one Kelvin absolute electrometer, and smaller portable electrometers and gauges on the same principle.

As a standard of capacity there is a cylindrical air condenser of the B. A. pattern.

Its capacity has not yet been determined absolutely. By cc.atparison with our certificated mica standards, it was found to be nearly one two-hundredth of a microfared, the value intended by the maker.
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The mica-standards and subdivided boxes have been carefully compared with each other and tested for insulation and absorption. They are above the average in quality and accuracy.

For the purpose of studying the behaviour of insulators under the influence of long contitued and intense electric stress, a subject which is now becoming of importance in connection with the transmission of power at very high voltage, there is in preparation a transformer capable of working up to 100,000 volts and of sufficient power to give useful practical results.

Magnetic Tests.-Determinations of the dip and horizontal intensity have been made with the Kew instruments in different parts of the laboratory, and of the horizontal intensity with two other types of magnetometer. The values obtained showed a very satisfactory agreement, and were in all cases verified by the local and bifila: variometers. A preliminary magnetic survey with the portable variometers has been made of all the laboratories in which experiments affected by the horizontal intensity are carried on. The results have been of great utility, and show that the precautions taken in erecting parts of the building with copper pipes and heating apparatus were by no means unnecessary, and might even have been extended with advantage to the elementary laboratories. It was also found that the disposition of the motors and machinery at the other end of the building was such as to produce a magnetic disturbance scarcely appreciable for most purposes in the portions devoted to delicate work.

A complete set of apparatus for testing the magnetic quality of iron and steel by various methods has also been provided. These experiments are mainly carried on in the Engineering Building, but some tests have been made by the magnetometric method for which the Physics Building is more suitable.

Considerable progress has also been made with the equipment for advanced work in Optics, Acoustics, and Heat, but little work has as yet been done by the students in these branches owing to the arrangement of the present courses of study. The collection of apparatus is on a corresponding scale to the electrical equipment, and includes several fine and valuable instruments such as a set of Ewing Seismographs on which records of two earthquakes have already been obtained; a Rieffler standard clock; a set of direct-reading electrical thermometers reading to .or Fahr., which are now being used for determining soil temperatures; a six inch Rowland grating with mountings and accessories by Brashear ; a complete set of spectrum and Crooke's tubes by Geissler ; mechanical models and apparatus from the Engineering Laboratory and the Instrument Company at Cambridge.

It is expected that in the course of the summer vacation, a complete catalogue of the apparatus will be made and published, which may be of use to outside students and experimentalists who may wish to know what facilities the laboratory may offer for any particular line of research.

## Chemical Laboratories.

The existing Chemical Laboratories are three in number, and intended to accommodate from sixty to seventy students at a time. They are supplied wilh the ordinary appliances for practical work, including balances, Laurent polariscope, spectroscopes, gas combustion and melting furnaces, apparatus for electrolytic work, for the determination of molecular weights, etc.

As the space is limited, students wishing to take laboratory classes must apply early for places.
f Note.-The McDonald Chemistry and Mining Building, now in course of erection will provide the University with extensive and completely equipped Chemical Laboratories and Class Rooms of the most approved and modern type. It is hoped that the building will be ready for occupation before the close of the Session of 1897-98.

## Botanical Laboratories.

The Botanical Laboratories occupy the upper floor of the central Arts building

The laboratory for general Morphology provides table accommodation for fifty students, and is equipped with all the necessary appliances for the practical study of plants, either fresh or dry.

In consection with this laboratory, a large collection of dried plants is naintained, from which material is drawn for practical study.

Each student is supplied with a dissecting microscope, which he is required to return in good order at the close of the session.

The laboratory for Advanced Anatomy at present affords accommodation for twenty students. Each table is provided with a complete outfit of instruments and reagents. Provision is also made for accurate micrometic work, and for the production of accurate drawings by means of the camera lucida and Leitz's drawing instrument.

More special instruments, including polariscope, spectroscope and photographic apparatus, afford opportunities for detailed studies in these several directions. Section cutting is provided for by King and Thoma-Jung microtomes, together with all necessary appliances for embedding in accordance with the most recent methods.

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Ample provision for material of all kinds is found in the resources of the botanic garden, and in a large supply of stock preparations.

An investigator's table held by the University at the Biological Laboratory, Wood's Holl, Massachusetts, is aviilable for such students as may successfully complete the advanced course of the third and fourth years.

## Botanic Garden.

The Botanic Garden occupies a commanding situation at the summit of the Cote des Neiges, distant from the College about one and one-half miles. It covers about nine acres, one-third of which is at present laid out.

The planted area includes a large reserve garden in which plants are grown in quantity for purposes of class-room instruction, and the section devoted to the Gamopetalae. The section embracing the Polypetale is now in course of development.

The conservatories embrace a continuous series of houses having a total ground area of 4,600 square feet. They include a camellia house, $20 \times 60$ feet ; a mixed stove, $20 \times 80$ feet; a greenhouse, 20 x 60 feet ; and an Australian house, $20 \times 30$ feet.

The collection comprises an important and somewhat extensive representation of Australasian plants, and type-forms of vegetation from various parts of the world.

During the winter, material for practical study is provided in large quantity to mect the requirements of the College, and of such of the City schools as may have acquired special privileges in this respect.

Students are admitted to the garden and allowed the use of material for practical study, under special conditions. For this purpose, students' tickets are issued at the opening of the session to all those taking the course in Botany.

The public are admitted to the garden without charge, every day, except Sinday.

## Petrographical Laboratory.

The Petrographical Laboratory, containing the chief rock collections of the University, is situated in the east wing of the Arts building, and is arranged for the use of Honour and Graduate students It is provided with a number of petrographical microscopes by Seibert and Crouch, as well as with models, sets of thin sections, electro-magnets, heavy solutions, etc., for petrographical work.

For advanced work and petrographical investigation Dr. Adams' extensive private collection of rocks and thin sections is available, for purposes of study and comparison.

## Observatory.

Latitude, N. $45^{\circ} 30^{\prime} 17^{\prime \prime}$. Longitude, $4^{\mathrm{h}} 54^{\mathrm{m}} 18^{*} .67$.
Height above sea level 187 ft .
Meteorological Observations are made every fourth hour, beginning at 3 h. o. m. Eastern standard time; also at 8 h. o. $\mathrm{m} ; 20 \mathrm{~h} . \mathrm{o}$. m. independent series of bi-hourly temperature observations is also made. The principal instruments employed are two standard mercurial barometers ; one Kew standard thermometer ; two Pastorelli thermometers ; one maximum thermometer ; one minimum thermometer; one set of six self-recording thermometers, with controlling clock, battery, etc. ; two anemometers ; one wind vane (wind-mill pattern), one anemograph, with battery, etc. ; one sunshine recorder; one rain-band spectroscope and one rain gauge.

The Anemometer and Vane are on the summit of Mount Royal, at a point about three-quarters of a mile northwest of the Observatory. They are 57 ieet above the surface of the ground and 8ro feet above sea level.

Soil temperatures are observed, in co-operation with the Physical Laboratory, by means of platinum thermometers at depths ranging from one inch to nine feet.

The Astronomical Equipment consist of :-The Blackman Teles-
 striding level, etc.; a prismatic ( $8 \mathrm{c} . \mathrm{m}$. ) transit instrument also arranged as a zenith telescope, a 2 in . transit in the prime vertical; two collimating telescopes; one sidereal clock; one mean time clock; one sidereal chronometer ; one mean time chronometer ; one chronograph ; batteries, telegraph lines, and sundry minor instruments. batteries, telegraph lines and sundry minor instruments

Observations for clock errors are made on nearly every clear night. Time exchanges are regularly made with the Toronto Observatory. Time signals are distributed throughout the city by means of the noon time-ball, continuous clock-signals, and the fire-alarm bells; and to the country, through the telegraph lines.

The longitude of the Observatory was determined in 1892 by direct telegraphic connection with Greenwich, with exchange of observers and instrunents. The position is believed to be the most accurately determined in Araerica.
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## $2 \mathfrak{a r t} \mathfrak{S c c o n}$.

The next session of this Faculty will begin on September ${ }^{15}$ th, 1897, and will extend to April 30th, 1898.

## I. REGULATIONS FOR ENTRANCE.

Students in the Faculty of Arts are classified as Undergraduates or Partial Students.

## Undergraduates.

Undergraduates alone can proceed to the degree of B.A. Candidates for admission to the First Year, as Undergraduates, are required to pass the First Year Entrance Examination. Two examinations for entrance are held in each year, as follows:
(I) That held in the first week of June, concurrently with the examinations for Associate in Arts.

Note to Heads of Schools.-Candidates for entrance may present themselves in June at McGill College; or papers may be sent to scliools at a distance, if the following conditions are complied with :-
(a) The names of Deputy Examiners must be submitted for approval, to the Secretary of the University, on or before May ist ; and (b) the application must be accompanied by a list of candidates.
(2) That held at the opening of the session, on September ${ }^{15}$ th, and following days, in McGill College alone.

The following regulations with regard to the First Year Entrance Examination are in force :-
I. Any candidate who fails in one and not more than one stubject at the September Entrance Examination may pass an equivalent examination at Christmas, or at the following Sessional Examinations, in the precise part of the subject in which he failed. In this regulation, Classics, Mathematics, and English are each regarded as a single subject.
2. The Entrance Examinations for the First Year will be held twice only in the year, viz., on the days in June and September appointed in the Calendar. Special arrangements may be made for the examination of candidates who are prevented from complying with the above regulation by severe illness or domestic affliction.

As the examination is intended as a test of qualification for admission to the classes of the University, certificates of passing are not granted except to those who subsequently attend lectures. Candidates who have passed the examination are not matriculated until they have paid all the prescribed fees for the session and complied with the other University regulations. (See the Directions given, p. 47.)

## First Year Entrance Examination.

For Passing only.
Examinations begin on June ist in McGill College and local centres; on September 15th in McGill College only.

Greek.-Xenophon, ${ }^{1}$ Anabasis, Book I.; Greek Grammar.
Lativ. - Cesar, Bell. Gall., Books I. and II.; and Virgil, Aeneid, Book I.; Latin Grammar.

In both Greek and Latin, Translation at sight and Prose Composition (sentences or easy narrative, based upon the prescribed prose text), will be required.

At the September, but not at the June, examination, other works in Greek or Latin equivalent to those specified may be accepted, if application be made to the Professors of Classics at least a fortnight before the day of examination.

Mathematic:-Arithmetic, Elementary rules, Vulgar and Decimal Fractions, Proportion, Percentage, Simple Interest, etc. Square root, and a knowledge of the Metric System; Algebra, Elementary rules, Fractions, Factors, Equation of the First Degree, Simultaneous Equations of the First Degree, Indices, Surds and easy Quadratics; Problems leading to equations, Binomial Theorem ; Euclid's Elements, Books I., II., III. with easy deductions.

Englisb.-Writing from Dictation. Grammar.-A paper on English Grammar, including Analysis. The candidate will be ex-

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pected to show a good knowledge of Accidence, as treated in any grammar prepared for the higher forms of schools. A similar statement applies to grammatical Analysis, in which the nomenclature used by mason will be preferred. The complete English Grammar published in Sonnenschein's Parallel Grammar Series may be regarded as giving the minimum amount of information expected. English History.-Candidates will be required to give the chief details of leading events. While any text-book written for the upper forms of schools may be used in preparation for the examination, Gardiner's Outline of English History (Longmans) is recommended. Com-position.-Candidates will write a short essay on a subject given at the time of the examination. Literature.-Shakspere's Richard II, ed. Deighton (Macmillan), and Scott's Lady of the Lake, ed. Stuart (Macmillan).

Note-Candidates may take Arithmetic, and all the English subjects except Literature, at the June Examination, and the remainder at the Entrance Examination of the following year.

French.-Grammar up to the beginning of Syntax. An easy translation from French into English ; and from English into French; Dictation or similar exercise. Candidates are expected to be able to write French without gross mistakes in spelling or grammar ; special credit will be given for evidence of familiarity with the spoken language.

$$
O r \text {, instead of French. }
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German.-The first eighty pages of Jovnes' German Reader (or equivalent amount) together with German accidence and translation into German as in the First Part of Vandersmissen's German Grammar (or equivalent amount).

Note.-Students of Theological Colleges who propose to take Hebrew are exempt from examination in Modern Languages.

Candidates who at the examination for Associate in Arts have passed in the above subjects are admitted as Undergraduates.

Candidates who fail in one or more subjects at the June examination, or who have taken part only of the examination and present themselves again in the following September, will be exempted from examination in those subjects only in which the Examiners may have reported them as specially qualified.

At the June examination, candidates from Ontario may present an equivalent amount from the books prescribed for the Junior Matri-

Ontario Candidates culation Examination of the University of Toronto.

The Matriculation or Junior Leaving Examination accepted by the Universities of Ontario is accepted by the Faculty, in so far as the subjects of their programme satisfy the Examiners of the Faculty, i. $\boldsymbol{e}$, when the subjects taken are the same as, or equivalent to, those required in McGill University.

In the case of Candidates from Ontario, Second Class nonprofessional certificates will be accepted pro tanto in the Examination.

For qualifications required of Normal School Students, see Normal School Regulations.

Candidates for the Six Years' Course in Arts and Medicine will be allowed to present themselves for the Arts Entrance Examination in 1897, on the Course appointed for 1898, provided that they are prepared to follow a course of study subsequently which shall be deemed by the Faculty equivalent to that required of candidates entering in 1898.

## Higher Examination for First Class, Second Class, and Passing.

This Examination will be held on September 15 th and following days, in McGill College only. The First Year Exilibitions will be awarded in accordance with the results.

Gneek.-Homer. Iliad, Bk. IV. or I.; Xenophon, Anabasis, Bk. I. ; Ilomer, Odyssey, Bk. VII. or XI.

Latin.-Cicero, in Catilinam, Orat. I. and II.; or Horace, Odes, Book I.; Cefsar, Bell. Gall., Bks. I. and II. or II. and III. ; Virgil, Aeneid, Bk. I. or III.

A paper on Greek and Latin Grammar.
Translation at sight from the easier Greek and Latin authors.
The Examination will include Prose Composition in both Greek and Latin.

Mathematics.-Euclid, Books I., II., III., IV. ; Algebra to end of Harmonical Progression (Colenso) ; Arithmetic.

English_-Grammar.-An advanced knowledge of this subjest will be required, and, in addition, some acquaintance with the historical development of English, as illustrated in common and important word-forms. The candidate is recommended to read Mason's English Grammar. English Literature.-The works to be read are those selected for the First Year Examination for Passing, with the addition of Miltos*s L'Allegro and other short poems, ed. Bell (Marmillan).. Composition.-The candidate, will be required to write an essay on some subject connected with the literature prescribed. History.-A paper bearing on the chief landmarks in European History will be set. Attention should be given to great movements of thought, and to the courses and results of important wars. Lavisse's General View of the Political History of Europe (Longmans) will serve to indicate the character of the knowledge required. Grammar.-The candidate will be expected to supplement Mason's Grammar by using Morris's Historical Outlines of English Accidence (Macmillan), as a book of reference.

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French Grammar.-Syntax, in addition to the grammar of the Entrance Course. Easy translation from French into English, and English into French.

For September, 1898. Syntax, in addition to the Grammar of the Entrance Course. Th. Gautier, Le Capitaine Fracasse. J. Macé, Histoire d'une Bouchee de Pain. Oral Examinations.

The First Year Exhibitions will not be awarded unless an adequate standard of merit has been reached; but in awarding the Exhibitions of higher value to the successful candidates, the results of an examination in the following subjects will also be taken into account :-

1. Higher Composition, and Translation at Sight (Latin and Greek).
2. Euclid, Book VI. (omitting Props. 27, 28, 29), with Defs. of Book V.
3. Fnglish :-Henry Morley's First Sketch of English Literature, Chaps. VII. and VIII.

For further particulars concerning First Year Exhibitions, see p. 70.

## Second Year Entrance Examination.

Candidates may qualify for entrance the Second Year by passing one of the following examinations, namely : the First Year Sessional Exami:ation, held in the previous Aprıl, or the Second Year Ordinary Entrance Examination, held in September, or the Second Year Exhibition Examination which is likewise held in September.

## Second Year Ordinary Entrance Examinaticn.

This examination begins September 15th, and is held at McGill College only.
Subjects :-
Greek.- Xenophon, Iellenics, I. and II.; Demosthenes, Olynthiacs, I. and II.; Euripides, Alcestis; Easy selections from Xenophon (Philpotts and Jerram, Clarendon Press); Grammar and Prose Composition ; Translation at sight.
Iatin.-Virgil. Aeneid, Book VI.; Cicero, Orations against Catiline; Livy, Bk. I. Grammar and Prose Composition. Translation at sight.

Other works in Greek or Latin equivalent in amount to those specified may be accepted by the Professors of Classics, if application be made to them at least a fortnight before the day of examination.

Euclid.-Books, I., II., III., IV., VI., with defs. of Book V. (Omitting Propositions 27, 28, 29 of Book VI.)
Algebra.-To end of Quadratic Equations (as in Colenso's Algebra).
Trigonometry.-Galbraith and Haughton's Trigonometry, Chaps. I, 2, 3, 4, 6, to beginning of numerical solution of plane triangles.
Arithmetic.-Elementary Rules, Proportion, Interest, Discount, etc., Vulgar and Decimal Fractions, Square Root, Metric System.
English.-The subjects are the same as those at present prescribed for the First Year Examination for Passing, but the examination is of a more advanced character.
French.-The Examination will be conducted on lines similar to those mentioned for the First Year, but a higher standard will be exacted, the minimum requirement being a knowledge sufficient to enable the Candidate to join the regular class.
Chemistry.-The Chemistry of the non-metallic Elements and of the more common metals.

## Medical Students.-Partial Students.-Studənts of other Universities.

Medical Students and Candidates for entrance into the first year of the Faculty of Medicine may pass in the above entrance examinations.
N.B.-Candidates for the six years' course in Arts and Medicine may, in 1897, be exempted from Greek, under the regulations prescribed for 1898. (See p. 75).

Partial Students.-Candidates for admission as Partial Students may attend any class open to them, without previous examination, provided they give the Professor satisfactory evidence of their ability to proceed with the work of the course.
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Students of other Universities may be admitted, on production of certificates, to a like standing in this University, after examination by the Faculty.

For changes in the regulations for Entrance, in 1898, see Appendix, pp. 75-76.

## General Regulations.

Every student is expected to state at entrance the name of the religious denomination to which he belongs, and of the Minister under whose care he desires to be placed.

Lists of the students belonging to the several denominations with the information thus given shall be sent, at the beginning of each session as soon as the classes are fully formed, to the Secretary's office, where they shall be available for reference.

Every student is required to sign the following

## Declaration.

"I hereby declare that I will faithfully observe the statutes, rules, and ordinances of this University of McGill College, to the best of my ability."

## Directions to Candidates for Matriculation or Admission.

Candidates are required :-
(a) To present themselves to the Dean at the beginning of the session, and fill up a form of application for matriculation or admission.
(b) To pass or to have passed the required examinations (p. 4I). Candidates claiming exemption, according to the regulations above given, from examination in any subject on the ground of examinations previously passed, must present certificates of standing in the latter. Candidates must pay a fee of $\$ 5$ before admission to the entrance examination in September- (See Fees, p. 68).
(c) To procure tickets from the Registrar (p. 69), and to sign the declaration above given.
(d) To present their tickets to the Dean. (Fine, etc., for delay stated on p. 69.)
(e) To provide themselves with the Academic dress (p. 67.)

## II. REGULATIONS FOR DEGREES IN ARTS.

Regulations for the Degree of B.A.
After passing the First Year Matriculation Examination, an Undergraduate, in order to obtain the Degree of B.A., is required to attend regularly the appointed courses of lectures for four years, and to pass the required Examinations in each year. A student cannot proceed with his course unless he has passed each Examination in its assigned order. If he faii at any one of these Examinations, he must pass it before being allowed to proceed with his course. Undergraduates are arranged in Years, from First to Fourth, according to their academic standing.

## 1. Ordinary Course for the Degree of B.A.

N. B. The Roman numerals used in the following conspectus have no reference to any other parts of the Calendar-whereas the Arabic numerals refer to the numbering of the courses on pp. 4.30; for example, Greek, 2. refers to the second course given under the head of Classical Litera'ure and History, p. 4.

## First Year.

> I. Greek, i. II. Latin, i. III. English Literature, I. IV. French, i. V. German, I. (Optional-instead of IV.) VI. Hebrew, I. (Optional-instead of IV.) VII. Mathematics, i. VIII. Chemistry, (Optional in 1897.98.) (Medical Students may $\begin{aligned} & \text { substitute one-half of the First Year Chemistry course } \\ & \text { of their Faculty.) }\end{aligned}$

## Second Year.

IX. Greek, 2.
X. Latin, 2.
XI. French, 2.
XII. German, 2. (Optional-instead o XI.)
XIII. Hebrew, 2. (Optional-instead of XI.)
XIV. History, i.
XV. Mental and Moral Philosorhy, 1.
XVI. Mathematics, 2.
XVII. Mathematical Physics, I. (Medical students may substitute the second balf of the Chemistry course of their Faculty for XV and XVII.)
XVIII. Botany, I. (Medical Students may substitute the Botany course of their Faculty.)

## Third Year.

XIX. Greek, 3 .
XX. Latin, 3. (Optional-instead of XIX.)
XXI. Mathematical Physics, 2.
(In addition to the above, the Student will take one subject from Div. (a), a second from Div. (b), and a third from either.)
Div. (a).
XXII. Greek, 3. (If XX has been taken.)
XXIII. Latin, 3. (If XIX has been taken.)
XXIV. English and Rhetoric, 3.
XXV. Mental Philosophy, 2.
XXVI. French, 3. (If IV and XI have been taken.)
XXVII. German, 3. (If V and XII have been taken.)
XXVIII. Hebrew, 3.
Div. (b).
XXIX. Optics, 3. and Descriptive Astronomy, 3. (Open to Students who have taken XXI.)
XXX. Experimental Physics, 4. (Open to students who have taken XXI.)
XXXI. Laboratory Course in Physics, 6.
XXXII. Botany, $2 a$.
XXXIII. Zoology, I. Physiology and Histology, or Anatomy and Practical Anatomy, may, by Medical Students only, be substituted for two courses of this Division.

## Fourth Year.

XXXIV. Greek, 4.
XXXV. Latin, 4. (Optional-instead of XXXIV.)

XX:.VI. Moral Philosophy, 3.
XXX VII. Mathematical Physics, 2. (Options! instead of XLIV.)
(In addition to the above, the Student will take one subject from Div. (a), a second from Div. b), and a third from either.)

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Div. (a).
XXXVIII. Greek, 4. (If XXXV has been taken.)
XXXIX. Latin, 4. (If XXXIV has been taken.)
XL. English Literature, 4.
XLII. French, 4. (If XXVI has been taken.)
XLII. German, 4. (If XXVII has been taken.) XliII. Hebrew, 4.
Div. (b).
XLIV. Astronomy, (4) and Optics, 3. (If XXI has been taken.)
XLV. Experimental Physics, 5.
XLVI. Laboratory Course in Physics, 7 .
XlVII. Botany, 2 b.

XLVili. Mineralogy and Geology, i.
N.B.-Students claiming exemptions cannot count XLIV and NLV as subjects for the B.A. Examinations, unless they have taken XXI.

For details of each subject, see Courses of Lectures, pp. 4-3.

A Candidate who seeks to obtain a B.A. Ordinary Degree of the First Class must fulfil the following conditions. He must not only obtain the required aggregate of marks (viz., tliree-fourths of the maximum), but he must also obtain First Class standing in three of the departments, and not less than Second Class in the remainder.

## Declaration

Every Candidate for the Degree of B.A. is required to make and sign the following declaration :
"Ego__ polliceor sancteque recipio me pro meis viribus studiosum fore communis hujus Universitatis boni, ct operam daturum ut ejus decus et dignitatem promoveam."

Notes on the Ordinary Course for B. $A$.
Additional Third and Fourth Year Students are not restricted to the choice Courses. of two distinct subjects in one of the above divisions. They may select one subject only, together with an Additional Course in the same subject, or in any other of the subjects which they have chosen, in which such Additional Course may be provided by the Faculty ; the above rules, however, must be complied with, and Students must have been placed in the First Class in the corresponding subject at the preceding Sessional Examinations, viz. :-Intermediate or Third Year, according to standing.

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The Additional Course is intended to be more than equivalent, in the amount of work involved, to any of the other subjects in the Division.
(For details of Additional courses provided, see pp. 52-53.)
Undergraduates are required to study either French or German for the first two years,-the same language in each year.

Any Student failing to pass the Examination at the end of the Second Year will be required to pass a Supplemental Examination, or to take throughout the following Session the language in which he has failed.

Students may take Hebrew instead of French or German.
For arrangements enabling Students in Medicine or Applied Science to take the course in Arts also, and obtain B.A., with B. Ap. Sc. or M.D., in six years, see p. 60.

Undergraduates who have been previously Partial Students, and have in this capacity attended a particular Course or Courses of Lectures, may, at the discretion of the Faculty, be exempted from further attendance at these Lectures ; but no distinction shall in consequence be made between the examination of Undergraduates and of those regularly attending Lectures.

## 2. Honour Courses.

Honours of First, Second, or Third Rank will be awarded to successful candidates, in any Honour Course established by the Faculty, provided they have passed creditably the ordinary Examinations in all the subjects proper to their year.

The Honour lectures are open to Undergraduates only, and no Undergraduate is permitted to attend them unless $(a)$ he has been placed in the First Class in the subject at the preceding Sessional Examination, if there be one; (b) has satisfied the Professor that he is otherwise qualified; and (c) while attending lectures makes progress satisfactory to the Professor. In case his progress is not satisfactory, he may be notified by the Faculty to discontinue attendance.

## Candidates for Honours in the Second Year.

A Candidate for Honours in the Second Year, who has obtained Honours in the First Year, may claim exemption from the lectures and examinations in Modern Languages, or Hebrew, or Botany. He must, however, inform the Dean at the beginning of the Session that he intends to claim exemption from a particular course.

French and German.

Hebrew.
Professional Students.

Partial Students.

Honour tions ${ }_{\text {, }}$

## Candidates for Honours in the Third Year.

A Candidate for Honours in the Third Year must, in order to obtain exemptions, have passed the Intermediate Examination, and must in the Examinations of the Second Year have taken First or Second Rank Honours, if Honours be offered in the subjects, or if not, First Class at the Ordinary Sessional Examinations in the subject in which he proposes to compete for Honours, and stand ligher than Third Class in not less than half oi the remaining subjects; such Candidate shall be entitled in the Third Year to exemption from lectures and examinations in any one of the subjects of the Year (see p. 49), except that in which he is a Candidate for Honours. A Candidate for Honours in the Third Year who has failed to obtain Honours shall be required to take the same examinations for B.A as the ordinary Undergraduate.

## Candidates for B. A. Honours.

A Student who has taken First or Second Rank Honours in the Third Year, and desires to be a Candidate for B.A. Honours, shall be required to attend two only of the courses of lectures given in the the ordinary departments, and to pass the two corresponding examinations only, at the ordinary B.A. Examination. A Candidate, however, who at the B.A. Examinations obtains Third Rank Honours, will not be allowed credit for these exemptions at the end of the Session, unless the Examiners certify that his knowledge of the whole Honour Course is sufficient to justify it.

Note.-For subjects of Ordinary Course see pp. 49, 50.

Honour and Additional Courses.
(N.B.-The numbers which stand after the Academic years refer to the corresponding numbers of the Courses given on pp. 4-30.)

## 1. Classical Literature and History.

Third Year Honours. $\begin{gathered}\text { Greek, } 5 . \\ \text { Latin, } 5 .\end{gathered}$
Fourth Year Honours, $\begin{aligned} & \text { Greek, } 6 . \\ & \text { Latin, } 6 .\end{aligned}$
(2. English Language and Literature.
Third Year Honours, 6, 8, 1o, 12, 44 .
Third Year Additional, 6 or io.
Fourth Year Honours, 5, 7, 9, if , 13, 15 .
Fourth Year Additional, 7 or il or 15 .

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## 3. French.

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Third Year Honours, 5.
Yourth Year Honourg, 6.

## 4. German.

Third Year Honours, $5 a$ and $6 b$. Third Year Additional, $5 a$. Fourth Year Honours, $6 a$ and $6 b$. Fourth Year Additional, $6 a$.

## 5. Semitic Languages.

Third Year Honours, $5 a$ and $5 b$.
Third Year Additional, $5 b$ without Literature. Fourth Year Honours, $6 a$ and $6 b$.
Fourth Year Additional, $6 b$ without Literature.

## 6. History.

Third and Fourth Year Honours, 3, 4.

## 7. Mental and Moral Philosophy.

Third Year Honours, 4.
Fourth Year Honours, 5, 6.

## 8. Mathematics and Physics

First Year Honours, 5.
Second Year Honours, 6.
Third Year Honours, $7,8$.
Fourth Year Honours, 8, 9, io, if.

## 9. Mineralogy.

Third Year Honours, 8, io.
Fourth Year Honours, 9.

## 10. Chemistry

Third Year Additional, 3, 5 .
Fourth Year Additional, 4, 6.
Courses 2 (Second Year) and 7 (Fourth Year) are oftional.

## 11. Zoology.

Fourth Year Additional, 4.

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## 12. Geology.

Fourth Year Honours, 2,3, 4, 5, 6.
NOTE.-By an order of the Lieutenant-Governor of Ontario in Council Honours in this University confer the same privileges in Cntario as Honours in the Universities of that Province as regards certificates of eligibility for the duties of Public School Inspectors, and as regards cxemption from the non-professicnal Examination of Teachers for first-class Certificates for Grades " A. and B."

## 3. Regulations for the Degree of M.A.

1. A Candidate must be a Bachelor of Arts of at least three years standing.

## Thesis.

2. He is required to prepare and submit to the Faculty a thesis on some literary or scientific subject, under the following rules :-
(a) The subject of the thesis must be submitted to the Faculty before the thesis is presented.
(b) A paper read previously to any association, or published in any way, cannot be accepted as a thesis.
(c) The thesis submitted becomes the property of the University, and cannot be published without the consent of the Faculty of Arts.
(d) The thesis must be submitted before some date to be fixed annually by the Faculty, which date must not be less than two months before the Candidate proceeds to the Degree.
N.B.-The last day in the session of 1897-98 for sending in Theses for M.A. will be Jan. 31st, 1898.

## Examinations.

3. All Candidates, except those who have taken First or Second Rank B.A. Honours, or have passed First Class in the Ordinary Examinations for the Degree of B.A., are required to pass an examination also, either in Literature or in Science, as each Candidate may select.
(a) The subjects of the Examination in Literature are divided into two groups as follows :-

Group A.-Latin, Greek, Hebrew.
Group B.-French, German, English.
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(b) The subjects of the Examination in Science are divided into three groups :-

Group A.-Pure Mathematics (advanced or Ordinary), Mechanics (including Hydrostatics), Astronomy, Optics.

Group B.-Geology and Mineralogy, Botany, Zoology, Chemistry.

Group C -Mental Philosophy, Moral Philosophy, Logic, History of Philosophy.
(c) Every candidate in Literature is required to select for Examination two subjects out of one group in the Literathere section, and one out of the other group in the same section. Every Candidate in Science is required to select two out of the three groups in the Science section ; and in cne of the groups so chosen to select for Examination two subjects, and in the other group one subject.
(d) One of the subjects selected as above will be considered the principal subject (being so denoted by the candidate at the time of application), and the other two as subordinate subjects.
(e) The whole examination may be taken in one year, or distributed over two or three years, provided the examination in any one subject be not divided.

For further details of the examination, application must be made to the Faculty before the above date. For fees, see p. 68. In case of failure, the candidate may present himself in a subsequent year without further payment of fees.)
Note.-Candidates who obtained the degree of B A. before 1884, may proceed to the degree of M.A. under the regulations in force previous to 1884.

## Lectures to Bachelors of Arts.

Lectures are open to Bachelors of Arts who are candidates for M.A., the sessional examinations corresponding to these lectures being reckoned as parts of the M.A. examination. The subjects are Greek, Latin, English, French, German, History, Mental and Moral Philosophy, Chemistry, Botany, Geology and Mineralogy.

## 4. Regulations for the Degree of LL.D.

This degree is intended as a recognition of special study by Masters of Arts in some branch of Literature or Science. The thesis or short printed treatise referred to below is regarded as the chief test of the candidate's mastery of the subject he has chosen. A very wide range of choice is allowed in order to suit individual tastes.

The following are the regulations :-
I. Candidates must be Masters of Arts of at least twelve years standing. Every candidate for the Degree of LL.D. in Course is required to prepare and submit to the Faculty of Arts, not less than three months before proceeding to the degree, twenty-five printed copies of a thesis on some Literary or Scientific subject which has een previously approved by the Faculty. The thesis must exhibit such a degree of Literary or Scientific merit, and give evidence of such originality of thought or extent of research as shall, in the opinion of the Faculty, justify recommendation for the degree.
N.B.-The subject should be submitted before the Thesis is written.
2. Every Candidate for the Degree of LL.D. in Course is required to submit to the Faculty of Arts, with his thesis, a list of books treating of some one branch of Literature or of Science, satisfactory to the Faculty, in which he is prepared to submit to examination, and in which he shall be examined, see p. 68.

## 5. Examinations.

## (A) College Examinations.

For Students of McGill College only.

1. There are two examinations in each year, viz., at Christmas and April. Successful students are arranged in three classes at the April examinations.

In the Fourth Year only, there is no Sessional Examination ; the University Examination for B.A. takes its place.



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2. Undergraduates who fail in one subject at the Sessional Examinations of the First or of the Second Year are required to pass a Supplemental Examination therein in the foliowing September. Should they fail in this Examination, they must in the following Session attend the Lectures and pass the Examination in the same subject, in addition to the regular course, or pass the Examination only, without attending Lectures, at the discretion of the Faculty.
3. Failure in two or more subjects at the Sessional Examinations of the First or of the Second Year, or in one subject at the Third Year Sessional Examinations, involves the ioss of the Session. The Faculty may permit the student to recover his standing by passing a Supplemental Examination at the beginning of the following Session.
4. A list of those to whom the Faculty may grant Supplemental Examinations in the following September will be published after the Sessional examination. The time for the Supplemental Examination will be fixed by the Faculty ; the examination will not be granted at any other time, except by special permission of the Faculty, and on payment of a fee of $\$ 5$.

## (B) University Examinations.

For Students of McGill College and of Colleges a filiated in Arts

## I. For the Degree of B.A.

There are three University Examinations: The Matriculation, at entrance ; the Intermediate, at the end of the Second Year ; and the Final, at the end of the Fourth Year.

1. The subjects of the Matriculation Examination are stated on p. 42.
2. In the Intermediate Examination, the subjects are Classics, Pure Mathematics, Logic, and Modern History, or English Literature, with one Modern Language, or Botany. Students are allowed to take Hebrew instead of a Modern Language. The subjects of the examination in 1898 are as follows:-

## Intermediate.

Greek. - Thucrdides, (Moore's Easy Selections, (pp. 47 to ili, Longmans) ; Sophocles, Electra. Prose Composition and Translation at sight of Greek (easy narrative) into English. General questions will also be set,-in History, on the Period of Athenian Supremacy (Cox's Atheniar Empire, Longmans' Epochs of Ancient History with Abbott's Pericles (Putnams), and in Literature on the outlines as contained in Jebs's Primer of Greek Lite:ature (pp. I to 100), (Macmillan).

A paper will also be set on Plato, Crito and Cebetis Tabula. (Summer Readings, see p. 5).

Iatin. - Virgil, Aeneid, Book VII. Latin Prose Composition and Translation at Sight of Latin into English ; History, from the Tribunate of Gaius Gracchus to the Battle of Actium (Shuckburgh's History of Rome, Macmillan); Literature: Wilkins Primer (Macmillan).

A paper will also be set on Cesar, De Bello Gallico, Bk. III. (Summer Readings, see p. 7.)

Mathematics.-Arithmetic.
Euclid, Books I., II., III., IV., VI., and defs. of Book V. Algebra, to Quadratic Equations inclusive (as in Colenso).
Trigonometry, including use of Logarithms.
Logic.-Jevons' Elementary Lessons in Logic.
English.-(For affiliated colleges).-Spalding's History of English Literature ; Lodge's History of Modern Europe, 17891878. Essay on a subject to be given at the time of the Examination.

European History.-(For McGill College Students) as on p. 17 . With one of the following :-

Botany.-(For McGill College Students.) See p. 26.
French.-V. Hugo, Notre Dame de Paris; Th. Gauthier, Le Roman de la Momie; Mme. de Stael, Corinne. Translation into French :-Rasselas ; Grammatical questions.
p. 47 to III , Composition arrative) into -in History, x's Athenian History with iture on the Greek Liter-
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Geruan.--Vandersmissen and Fraser, German Grammar ; Joynes German Reader; Freytag, Die Journalisten; Uhland, Ballads and Romances (Macmillan's Foreign School Classics); Jensen, Die braune Erica. Translation at Sight ; Dictation ; Colloquial exercises.

Hebrew,-Genesis. chap. IV. to VIII; Exodus, XX ; Deuteronomy, V. Exercises : Hebrew into English, and English into Hebrew. Syntax. Reading of the Masoretic notes, the Septuagint version and the Vulgate.
3. For the Final or B.A. Ordinary Examination the subjects appointed are the obligatory subjects of the Third and Fourth Years, viz., Latin or Greek ; Mathematical Physics (Mechanics and Hydrostatics, or Astronomy and Optics) ; Moral Philosophy ; and those three subjects which the Candidate has selected in the Third and Fourth Years. See pp. 49, 50..)

## Final.

Greek.-Plato, Protagoras; Euripides, Orestes; Composition and Translation at sight ; paper on the Constitutional History of Athens, Greek Literature and Antiquities. A Paper will also be set on "The Story of Achilles," (Pratt \& Leaf, Macmillan.) Summer Readings (see p. 5.)
Latir--Cicero, Tusculan Disputations, Book I.; Juvenal, Selected Satires. Composition and Translation at Sight. History of the Roman Empire to the reign of Domitian. A Paper will also be set on Virgil, Aeneid, I.-III. (Sumner Readings see p. 8.)

Mathematical Physics.-Mechanics and Hydrostatics, as in Loney's Mechanics and Hydrostatics; or Optics and Astronomy, as in Galbraith and Haughton or Erinkley.

Mental and Moral Philosophy.-Murray's Introduction to Ethics.
Natural Science.-(a) Mineralogy and Geology, or (b) Botany. Practical Geology and Palaeontology (Additional) ; or Practical Chemistry (Additional).
Experimental Physics.-Electricity and Magnetism. (See courses of Lectures, p. 24.)
History.-(For affiliated Colleges.) Myers. Mediaeval an 1 Modern History ; Bryce, Holy Roman Empire (omit Chaps. 6, 8, 9, I3, and Supplementary Chapter).

English Literature.-(for McGill College.) The Course on English Literature for the Fourth Year, p. 10.
French.-The Course on French for the Fourth Year, p. 13.
German.-The Course on German for the Fourth Year, p. 15.
Hebrew. - Isaiah, to XiI; Psalme, XLVI to LV; Gesenius Grammar ; Harper, Elements of Syntax ; Reading of the Masoretic notes, the Septuagint Version and the Vulgate. Translation at Sight.
N.B.-For Additional Courses on above subjects see pp. 52-53.

## 6. Exemptions for Students in Professional Faculties.

General Regulations.-Students of the Third and Fourth Years, matriculated in the Faculties of Law, or Medicine, or Applied Science, or in any affiliated Theological College, are entitled to exemption from any one of the Ordinary subjects required in the Third and Fourth Years. (For rule concerning Special Certificates, see p. 62.)

To be allowed these privileges in either year, they must give notice, at the commencement of the session, to the Dean of the Faculty of Arts, of their intention to claim exemptions as Professional Students, and must produce, at the end of the session, certificates of attendance on a full course of Professional Lectures during the year for which the exemption is claimed.

Students registered in the Faculty of Medicine are allowed the following privileges :-

In the First and second Years in Arts, they may substitute certain equivalents for parts of the Ordinary Course. (See pp. 48, 49.)

In the Third Year in Arts, they may, if following the full course of the First Year in Medicine, take Physiology and Histology with practical work therein, or Anatomy and Practical Anatomy, as two of the courses under the heading of Science in the Ordinary Course.

Medical Students who have completed the Third Year in Arts and First Year in Medicine are required in the Fourth Year in Arts to take two only of the subjects of the Ordinary Course (or one subject with the Additional Course therein). These subjects must be either in Languages or Literature. Medical Students are recommended to continue in the Third and Fourth Years of the Arts Course subjects they have taken in the First and Second Years.

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To secure these privileges, certificates of registration in the Medical Faculty must be presented at the beginning of each year to the Dean of the Faculty of Arts; and at the end of each session in the first two years, certificates of attendance on lectures and of passing the corresponding examinations must also be presented. At the en 1 of the Third and Fourth Years, certificates must be presented to show that the full curriculum of the Medical Faculty for the year has been completed.

Students in the Faculty of Applied Science, who have passed the first two years in Arts, are allowed, while pursuing the course in Applied Science, to substitute certain courses in Applied Science fo: the corresponding courses in Arts, and to distribute the work of the Third and Fourth Years in Arts over three years, so that they may be enabled to take the E.A. Degree at the end of the Fifth Year from entrance. For the details, application may be made to the Dean of the Faculty of Arts. Certificates of attendance, etc., in Applied Science will be required.

The above arrangements will enable candidates for the M.D. or B.A. Sc. degrees to pursue the course in Arts also, leading to the B.A. degree, and complete both courses in six years.

Literate in Arts.-A certificate of "Literate in Arts" will be given along with the professional degree in Medicine or Applled Science, to those who have completed two years study in the Faculty of Arts, and have passed the prescribed examinations.

## Students of the University attending affiliated Theological Colleges.

1 These students are subject to the regulations of the Faculty of Theological arts in the same manner as other students.

## Applied Science.

2. The Faculty will make formal reports to the governing body of the Theological College which any such students may attend, as to :-(1) their conduct and attendance on the classes of the Faculty ; and (2) their standing in the several examinations; such reports to be furnished after the Examinations, if called for.
3. Undergraduates are allowed no exemptions in the course for the Degree of B.A. until they have passed the Intermediate Examination ; but they may take Hebrew in the First or Second Years, instead of French or German.
4. In the Third and Fourth Years they are allowed exemptions, as stated above.
*Any student who, under any of the above rules, desires to take Experimental Physics is required to take Mechanics and Hydrostatics also, in the Third Year.

## 7. Medals, Prizes, Classing and Certificates.

1. Gold Medals will 'se awarded in the B.A. Honour Examinations to Students who take the highest Honours of the First Rank in the subjects stated below, and who shall have passed creditably the Ordinary Examinations for the Degree of B.A., provided they have been recommended therefor to the Corporation by the Faculty on the report of the Examiners :-

The Henry Chapman Go'd Medal for Classical Languages and Literature.
The Prince of Wales Gold Medal for Mental and Moral Philosophy.
The Anne Molson Gold Medal for Mathematics and Natural Philosophy.
The Shakspere Gold Medal for the English Language, Literature and European History.
The Logan Gold Medal for Geology, Mineralogy and Palaeontology.
The Major Hiram Mills Gold Medal, for a subject to be chosen by the Faculty from year to year.

If there be no candidate for any Medal, or if none of the candidates fulfil the required conditions, the Medal will be withheld, and the proceeds of its endowment for the year may be devoted to prizes in the subject for which the Medal was intended. For details, see announcements of the several subjects below.
2. Special Certificates will be given to those Candidates for B.A. who have been placed in the First Class at the ordinary B.A. Examination ; have obtained three-fourths of the maximum marks in the aggregate of the studies proper to their year ; are in the First Class in not less than half the subjects, and have no Third Class. At this examination, no Candidate who has taken exemptions (see p. 60), can be placed in the First Class unless he has obtained First Class in four of the departments in which he has been examined, and has no Third Class.
3. Certificates of High General Standing will be granted
to those Undergraduates of the first two years who have obtained three-fourths of the maximum marks in the aggregate of the studies proper to their year, are in the First Class in not less than half the subjects, and have not more than one Third Class. In the Third Year the conditions are the same as for the Special Certificate for B.A.
4. Prizes or Certificates will be given to those Undergraduates who have distinguished themselves in the studies of a particular class, and have attended all the other classes proper to their year.

5 His Excellency the Earl of Aberdeen has been pleased to offer a Gold Medal for the study of Modern Languages and Literature, with European History, or for First Rank General Standing, as may be announced.
(a) The Regulations for the former are as follows :-
(I) The subjects for competition shall be French and German, together with a portion of the History prescribed for the Honour Course for the Shakspere Medal. Information concerning the History may be obtained from the Professor of History.
(2) The Course of Study shall extend over two years, viz., the Third and Fourth Years.
(3) The successful Candidate must be capable of speaking and writing both languages correctly.
(4) There shall be examinations in the subjects of the course in both the Third and Fourth Years, at which Honours may be awarded to deserving Candidates.
(5) The general conditions of competition and the privileges as regards exemptions shall be the same as for the other Gold Medals in the Faculty of Arts.
(6) Students from other Faculties shall be allowed to compete, provided they pass the examinations of the Third and Fourth Years in the above subjects.
(7) Candidates desiring to enter the Third Year of the Course, who have not obtained first-class standing at the Intermediate or Sessional Examinations of the Second Year in Arts, are required to pass an examination in the work of the first two years of the Course in Modern Languages, if called on to do so by the Professors.
(8) The subjects of Examination shall be those of the Honour Course in Modern Languages.
(b) The Regulations for the Gold Medal, if awarded for First Rank General Standing, are as follows :-
(I) The successful Candidate must take no exemptions or substitutions of any kind, whether Professional or Honour, in the Ordinary B.A. Examinations.
(2) He shall be examined in the following subjects :-
(a) Classics (both languages) ; (b) Mechanics, Hydrostatics Optics, Astronomy ; (c) Moral Philosophy; and any two of the following subjects, or any one of them with its Additional Course ; (d) Geology, etc.; (e) Experimental Physics; ( $f$ ) English; (g) German.
(3) His answering must satisfy special conditions laid down by the Faculty.
(4) The same Candidate cannot obtain the Gold Medal for First Rank General Standing and also a Gold Medal for First Rank Honours.
6. The Neil Stewart Prize of $\$ 18$ is open to all Undergraduates and Graduates of this University, and also to Graduates of any other University, who are students of Theology in some College affiliated to this University. The rules which govern the award of this prize are as follows :-
(I) The Candidate must pass, in the First Class, a thorough examination upon the following subjects : Hebrew Grammar ; reading and translation at sight from the Pentateuch, and from such poetic portions of the Scriptures as may be determined.
(2) In case competitors should fail to attain the above standard, the prize will be withheld, and a prize of $\$ 36$ will be offered in the following year for the same.
(Course for the present year: Hebrew Grammar (Gesenius) ; Translation and analysis of Exodus; Isaiah XL. to the end of the book.)
(3) There will be two Examinations of three hours each-one in Grammar and the other in Translation and Analysis.

This Prize, founded by the late Rev. C. C. Stewart, M.A., and terminated by his death, was re-established by the liberality of the late Neil Stewart, Esq., of Vankleek Hill.
7. Early Engligh Text Society's Prize-This prize, the annual gift of the Early English Text Society, will be awarded for proficiency in (1) Anglo-Saxon, (2) Early English before Chaucer:

The subjects of Examination will be :-
(1) The Lectures of the Third and Fourth Years on Anglo-Saxon.
(2) Specimens of Early English, Clarendon Press Series, ed. Morris and Skeat, Part II., A. D. 1298-A.D. 1393. The Lay of Havelok the Dane (Early English Text Society, ed. Skeat).
8. New Shakspere Society's Prize.-This Prize, the annual gift of the New Shakspere Society, open to Graduates and Undergraduates, will be awarded for a critical knowledge of the following plays of Shakspere :-

Hamlet; Macbeth; Othello ; King Lear.
9. Charles G. Coster Memorial Prize.-This Prize, intended as a tribute to the memory of the late Rev. Cnas. G. Coster, M.A., Ph.D., Principal of the Grammar School, St. John, N.B., is offered by Colin H. Livingstone, B.A., to Undergraduates (men or women) from the Maritime Provinces, Nova Scotia, New Brunswick and Prince Edward Island. In April, 1898, it will be awarded to that Undergraduate of the First, Second or Third Year, from the above Provinces, who, in the opinion of the Faculty, has passed the most satisfactory Sessional Examinations, under certain conditions laid down by the donor.
10. Vancouver Society's Prize.-The Vancouver (B.C.) Society, of McGill Graduates, offers $\$ 50$ jearly, to be distributed in prizes among the five Faculties of the University.
11. Science Scholarships Granted by Her Majesty's Commission for the Exbibition of 1851 -These scholarships of the value of $f_{I 50}$ a year are tenable fo two or, in rare instances, three years. They are limited, according to the Report of the Commission, " to those branches of Science (such as Physics, Mechanics and Chemistry) the extension of which is specially important for our national industries." Their object is not to facilitate ordinary collegiate studies, but " to enable students to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country."

Three nominations to these scholarships have already been placed by the Commissioners in 1891 and 1893 at the disposal of McGill University, and have been awarded.

When nominations are offered, they are open to Students of not less than three years standing in the Faculty of Arts or of Applied Science, and are tenable at any University or at any other Institution approved by the Commission.
12. The names of those who have taken Honours, Certificates or Prizes will be published in order of merit, with mention, in the case of Students of the First and Second Years, of the schools in which their preliminary education has been received.

## 8. Partial Students.

As will be seen from the announcement in Part First, pp. $4-30$, the courses of lectures to which Partial Students are admitted are such as are likely to prove attractive to those who have limited time at their disposal, and wish to enjoy the advantages of that higher instruction which the University offers to ali qualified persons.

For conditions of Entrance see p. 46.

## 9. Attendance and Conduct,

All students shall be subject to the following regulations :-

1. A Class-book shall be kept by each Professo or Lecturer, in which the presence or absence of Students shall be carefully noted; and the said Class-book shall be submitted to the Faculty at all their ordinary meetings during the Session.
2. Each Professor shall call the roll at the beginning of the lecture. Credit for attendance on any lecture may be refused on the grounds of lateness, inattention, neglect of study, or disorderly conduct in the class-room. In the case last mentioned, the student may, at the discretion of the Professor, be required to leave the class-room. Persistence in any of the above offences against discipline shall, after
admonition by the Professor, be reported to the Dean of Faculty. The Dean may, at his discretion, reprimand the student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from Classes.
3. Absence from lectures can only be excused by necessity or duty, of which proof must be given, when called for, to the Faculty. The number of times of absence, from necessity or duty, that shall disqualify from the keeping of a session shall in each case be determined by the Faculty.
4. While in College, on going to or from it, Students are expected to conduct themselves in the same orderly manner as in the class-rooms. Any Professor observing improper conduct in the College buildings or grounds may admonish the student, and, if necessary, report him to the Dean. Without as well as within the walls of the College, every student is required to maintain a good moral character.

5 When students are brought before the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, impose fines, disqualify from competing for prizes or honours, suspend from classes, or report to the Corporation for expulsion.
6. Any student who does not report his residence on or before November ist in each year is liable to a fine of one dollar.
7. Any student injuring the furniture or buildings will be required to repair the same at his own expense, and will, in addition, be subject to such other penalty as the Faculty may see fit to inflict.
8. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shali be immediately reported to the Principal, or, in his absence, to the Vice-Principal.
(N.B.-All students are required to appear in Academic dress while in or about the College buildings.

At a meeting of the Corporation in April, 1895, it was agreed to request all members of the University to appear in Academic dress at University receptions, Conversaziones, etc.

Students are requested to take notice that petitions to the Faculty on any subject cannot, in general, be taken into consideration, except at the regular meetings appointed in the Calendar.)

## III. FEES.

## All fees and fines are payable to the Bursar of the College.

## 1. Undergraduates.- $\$ 37$ per session.

Every candidate for the September Matriculation Examination in any Faculty, must pay a fee of $\$ 5$ betore admission to the examination. This will be reckoned as part of the regular fees if he pass, but will not be returned in case of failure.

Matriculation fee for entrance into the Second Year, \$1o. (Exigible from those who have failed in the First Year, and re-enter in the Second Year on examination.)
2. Partial Students.- $\$ 8$ per session for one course of lectures, including the use of the Library; $\$ 4$ per session for each additional course.

Partial Students are also required to pay \$2 yearly for " Athletics and the care of the College grounds," unless they state in writing to the Dean their intention not to use the grounds.

Partial Students taking the full curriculum in any one year pay the same fees as Undergraduates in that year.
N.B.-Every student is required to deposit with the Secretary of the University the sum of $\$ 3$ as caution money for damage done to furniture or apparatus, etc.

## Special Fees.

Laboratory and Practical Classes, viz, Chemistry, Botany, Physics, each per session (optional) $\qquad$ $\$ 10$ oo
No student will be admitted to any Laboratory and Practical Class except on presentation of his ticket to the Professor.
(A change in the fees for Chemistry and Physics is under consideration.)
Elocution (optional)....... ................................... 3 oo
Petrography (optional) ..................... ..................... 500
Gymnasium (for partial students), optional................... ...... 250
Supplemental Examination, at the regular date fixed by the Faculty 200
Supplemental Examination, when granted at any other time than the regular date fixed by the Faculty.

5 oo

Fee for a certificate of standing, if accompanied by a state-
ment of classification in the several subjects of examination....
200
Examination Fee for candidate intending to enter the Medical
Faculty.
5 oo
All applications for certificates must be addressed to the College Secretary, accompanied by the required fee.

No certificates are given for attendance on lectures unlest the corresponding examinations have been passed.

Special fees are additional to the regular fees paid by Undergraduates or Partial Students, but are payable only for the optional classes or objects named above.
N.B.-The lectures in one subject in any one of the four college years constitute a "Course."

All fees for Supplemental Examinations must be paid in the Secretary's office, and the tickets shown to the Dean before the Examination.

The fees must be paid to the Secretary, and the tickets shown to the Dean within a fortnigh after the commencement of attendance in each session. In case of default, the student's name will be removed from the College books, and can be replaced thereon only by permission of the Faculty, and on payment of a fine of $\$ 2$.
(All fines are applied to the purchase of books for the Library.)
Graduates in Arts are allowed to attend, without payment of fees, all lectures, except those noted as requiring a special fee.

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& \text { Fee for the Degree of M.A... . . . . . . . . . .. \$10 co* } \\
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*A Bachelor of Arts or a Master of Arts intending to proceed to a higher Degree is required, in addition to the above, to keep his name on the books of the University, by the annual payment of a fee of $\$ 2$ to the Registrar of the University. He may, if he prefer it, compound for the above annual fees, by the payment of $\$ 6$ in one sum for the Master's Degree, or $\$ 30$ for the Doctor's Degree, on or before the date of application for the Degree.

If the degree of M.A. be granted, with permission to the Candidate, on special grounds, to be absent from Convocation, the fee is $\$ 25$.

The M.A. or LL.D. fee must be sent with the thesis to the Secretary of the University. This is a condition essential to the reception of the application. The Secretary will then forward the thesis to the Dean of the Faculty.

> Extract from the Regulations of the Board of Governors for Election of Fellow's under Chap. V. of the Statutes of the University.

" From and after the graduation of 1888 , all new Graduates " shall pay a Registration Fee of $\$ 2.50$ at the time of their " graduation, in addition to the Graduation Fee ; and shall " be entered in the University list as privileged to vote, and " shall have voting-papers mailed to them by the Secretary."

## IV. SCHOLARSHIPS AND EXHIBITIONS. General Regulations.

1. A Scholarship is tenable for two years; an Exhibition for one year.

Scholar. ships.
2. Scholarships are open for competition to Students who have passed the University Intermediate Examination, provided that not more than three sessions have elapsed since their Matriculation ; and also to Candidates who have obtained what the Faculty may deem equivalent standing in some other University, provided that application be made before the end of the Session preceding the examination.
3. Scholarships are divided into two classes:-(1) Science Scholarships : (2) Classical and Modern Language Scholarships. The subjects of examination for each are as follows :-

Science Scholarships.-Mathematics-Differential and Integral Calculus; Analytic Geometry; Plane and Spherical Trigonometry ; Higher Algebra and Theory of Equations; Natural ScienceBotany ; Chemistry ; Logic. (For subdivision, see below.)
Classical and Modern Language Scholarships.-Greek ; Latin ; English Composition ; English Language and Literature ; French or German.
4. Exhibitions are assigned to the First and Second Years.

First Year Exhibitions are open for competition to candidates for entrance into the First Year.

Second Year Exhibitions are open for competition to Students who have passed the First Year Sessional Examinations, provided that not more than two sessions have elapsed since their Matriculation ; and also to candidates for entrance into the Second Year.

The subjects of examination are as follows :-
First Year Exhibitions. - Classics, Mathematics, English, French.

Second Year Exhibitions.-Classics, Mathematics, English Language and Literature, Chemistry and French or German.
5. The First and Second Year Exhibition Examinations will, for Candidates who have not previously entered the University, be regarded as Matriculation Examinations.
6. No student can hold more than one Exhibition or Scholarship at the same time.
7. Exhibitions and Scholarships will not necessarily be awarded to the candidates who have obtained the highest marks. An adequate standard of merit will be required.
8. If in any College Year there be not a sufficient number of candidates showing adequate merit, any one or more of the Exhibitions or Scholarships offered for competition may be given to more deserving candidates in another year.
9. A successful candidate must, in order to retain his Scholarship or Exhibition, proceed regularly with his College Course to the satisfaction of the Faculty.
10. The annual income of the Scholarships or Exhibitions will be paid in four instalments, viz. :-In October, December, February and April, about the 20th day of each month.
11.The Examinations will be held at the beginning of every Session.

There are at present seventeen Scholarships and Exhibitions :-
The Jane Redpath Exbibition, founded by Mrs. Redpath, of Terrace Bank, Montreal :-value, about $\$ 90$ yearly, open to both men and women.

Ten McDonald Scholarships and Exhibitions, founded by W. C. McDonald, Esq., Montreal :-value, $\$ 125$ each, yearly.

The Charles Alexander Scholarship, founded by Charles Alexander, Esq., Montreal, for the encouragement of the study of Classics and other subjects :-value, $\$ 120$ yearly.
The George Hague Exhibition, given by George Hague, Esq., Montreal, for the encouragement of the study of Classics :value, $\$ 125$ yearly.
The Major H. Mills Scholarship, founded by bequest of the late Major Hiram Mills :-value, \$roo yearly.

The Barbara Scott Shclarship, founded by the late Miss Barbara Scott, Montreal, for the encouragement of the study of the Classical languages and literature :-value, \$100, to \$120 yearly.

Two Donalda Exhibitions, open to women in the Donalda Department :-value, $\$ 100$ and $\$ 120$ yearly.
Ottawa Valley Graduates Society Exhibition. The Sir J. William Dawson Exhibition. (See Appendix.)

Exbibitions and Scholarships Offered for Competition at the Opening of the Session, Sept., 1897.
N.B.-Four of the Exhibitions are open to women (two of these to women alone, either in the First or Second Year).

## To Students entering the First Year, two Exhibitions of \$125, one of $\$ 120$, one of $\$ 100$, one cf $\$ 90$, and one of $\$ 60$.

These Exhibitions are awarded in accordance with the results of the Higher Entrance Examination for the First Year, provided an adequate standard of merit has been reached.

For subjects of Examination see under p. 44.
To Students entering the Second Year, three Exhibitions of $\$ 125$, and one of $\$ 100$. (See also N.B. above).

Subjects of
Greek.-Xenophon, Easy Selections (Philpotts \& Jerram); Examina- Demosthenes, Olynthiacs, I. and II.; Euripides, Alcestis. tion.

Latin--Virgil, Georgics, Bk. I.; Horace, Odes, Bk. I.; Livy, Bk. I.

Greek and Latin Prose Composition, and Translation at sight.
A Paper on Grammar and History.
Text Books.-Myers' Ancient History; Abbott's Arnold's Greek Prose Composition, or Sidgwick's First Greek Writer; Ramsay's Latin Prose.

Mathematics.-Euclid (six books) ; Algebra (Hall and Knight's Advanced) ; McDowell's Exercises in Modern Geometry ; Theory of Equations (in part) ; Trigonometry (first four chapters, GaLbratth and Haughton).

English and Modern History.-In September, 1897, and until further notice, an examination will be held on the following works : Language.-Trench Study of Words. Literature.-Spencer, Faerie Queene, Bk. I., ed. Percival (Macmillan) ; Tennyson, Selections from Tennyson, ed. Rowe and Webb (Macmillan). History.Church, The beginning of the Middle Ages (Epochs of Modern History, Longman's). English Composition.-The candidate will be required to write an essay on some subject connected with the literature or history prescribed.

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Chemistry. - Roscoe, Lessons in Elementary Chemistry, as far as page 264. (Chemistry will not be required in September, 1897)

French,-French Grammar including Syntax.-Paul Bourget, Un Saint; F. Coppée, La Grève des Forgerons; V. Hugo, Le Roi s'amuse, Oral Examinations.

Or, instead of French :-
German-German Grammar (Vandersmissen, Accidence and Syntax) and Composition; Grimm, Kinder und Hausmaerchen (Vandersmissen's edition) Schiller, Der Neffe als Onkel, Der Gang nach dem Eisenhammer; Goethe, Hermann und Dorothea; Translation from English into German.

No Candidate who has been placed in the Third Class in more than one subject can be awarded a Second Year Exhibition.

To Students entering the Third Year, five Scholarships of \$125 tenable for two years.
One of these is offered in Mathematics and Logic, and one in Natural Science and Logic as follows :-
I. Mathematics.-Differential Calculus (Williamson, Chaps. I, 2, 3, 4, 7, 9 ; Chap. 12, Arts. 168-183 inclusive; Chap. 17, Arts. 225-242 inclusive). Integral Calculus (Williamson, Chaps. 1, 2, 3, 4, 5 ; Chap. 7, Arts. 126-140 inclusive ; Chap. 8, Arts. ${ }^{150-156}$ inclusive ; Chap. 9, Arts. 168-176 inclusive). Analytic Geometry (Salmon, Conic Sections, subjects of Chaps. i-I3 (omitting Chap. 8), with part of Chap. 14). Lock, Higher Trigonometry; Mclelland and Preston, Spherical Trigonometry, Part I. Salmon, Modern Higher Algebra (first four chapters). Todhunter or Burnside and Panton, Theory of Equations (selected course).
Logic as in Jevons' Elementary Lessons in Logic.
2. Natural Science. - Botany as in Gray's Structural and Systematic Botany. Canadian Botany, including a practical acquaintance with the Spermaphytes, Pteridophytes and Bryopyhytes. Chemistry as in Roscoe's Lessons in Elementary Chemistry, Logic, as in Jevon's Elementary Lessons in Logic.
Two Scholarships are offered in Classics and Modern Languages, as follows :-

Subjects of Examination.

Greek-Plato, Apology and Crito ; Xenophon, Memorabilia, Book I. ; Thucydides, Book VI.
Latin-Horhce, Epistles, Book I. ; Livy, Books XXI., XXII. ; Virgil, Georgics, Book II.; Sallust, Catiline; Cicrro, Select Letters (Fritchard and Bernard, Clarendon Press Series).
Greek and Latin Prose Composition, and Translation at Sight.
Ancient History.-Text-Books.-Smith, Student's Greece; Mommsen, Rome (abridged).
English and History. - Literature. - Shakspere Tempest, ed. Deighton, Macmillan ; Milton, Paradise Lost, Bks. I. and II (Macmillan) ; Lamb, Essays of Elia, ed. Hallward and Hill (Macmillan). History.-Myers, Mediaeval and Modern History (Ginn), Part. I. English Composition. - The candidate will be required to write an essay on some subject connected with the literature or history prescribed.
English Composition.-High marks will be given for this subject.
French.-Racine, Britannicus; Molière, Les Femmes Savantes. French Grammar. Bonnefon, Les Ecrivains célèbres de la France. Oral examination ; Dictation.
For September 1898. Racine, Britannieus; Molierè, Le Misanthrope ; A. de Musset, Les Nuits; A. de Vigny, Cinq Mars. Grammar. Lanson, Literature Francaise. Oral Examination.
Or, instcad of French :-
German. - Schiller-Egmont's Leben und Tod (Buchheim), die Kraniche des Ibycus, Das Lied von der Glocke, der Kampf mit dem Drachen; Immermann, Der Oberhof (Wagner, Pit Press) ; Goethe, Iphigenie ; German Grammar and Composition; Translation from English into German; Dictation.

## V. GENERAL INFORMATION FOR STUDENTS. Boarding Houses.

Board and rooms can be obtained at a cost of from $\$ 15$ to $\$ 25$ per month : Rooms only, from $\$ 4$ to $\$ \mathrm{Io}$ per month; Board only, from $\$ 12$ to $\$ 18$ per month.

Students can obtain a list of Boarding Houses on application to the Secretary.

For notice of McGill Students' Club, see "University Societies."

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## APPENDIX.

## Announcement for 1898-99.

In the Session 1898-99, certain changes in the Regulations will come into force, which will be found below :-

## First Year Entrance.

Except in special cases, no Candidate will be admitted to the Firs: Year Entrance Examination, unless he is at least sixteen year; of age, and produces a certificate to this effect, if deemed necessary.

No Candidate can become an Undergraduate of the First Year except by passing the June or September Entrance Examination of the First Year.

The subjects of the Entrance Examination will be :-

1. English. (including Eistory)
2. Latin or Greek.
3. Geometry, Arithmetic, Algebra.
4. Greek or Latin (if not already taken).
or two Moderı Languages, or one Modern Language with the additional Mathematics of the First Year Exhibition Examination.
5. Elemento"y Natural or Physical Science, viz : one of the following : (a) Physiography; (b) Botany; (c)
Chemistry, or in place of (a) or (b) or (c) a Language not previously taken.
The examination in the above subjects will follow generally the lines laid down on pp. 42-45 of this announcement; where the subjects are different from those there specified, detailed information will be furnished by circular at the beginning of the next session. The Botany will be the same as that required at the A. A. Examination. The amount required in Chemistry will be as follows :-

Chemistry,-Elementary inorganic Cnemistry, comprising the preparation and properties of the chief non-metallic elements and their more important compounds, the laws of chemical action, com-
bining weights, etc. (The ground is simply and effectively covered by Remsen's "Elements of Chemistry," pp. 1-160).

The additional requirements in the Mathematical subjects for Exhibitions are as follows:-

Euclid:-Bks. 4 and 6, with Defs. of Bk. V. and easy deductions.
Algebra:-The three Progressions: Ratio, Proportion and Variation ; Permutations and Combinations; Scales o Notation; Logarithms; Interest and Annuitiss.
Trigonometry :-To the beginning of the solution of obliqueangled triangles, as in Galbraith \& Haughton, with deductions.

## Second Year.

There will be no specified examination as heretofore for immediate admission to the Second Year, as an Undergraduate ; but in certain cases, to be dealt with by a standing Committee appointed for the purpose, the Faculty may admit to the Second Year students who shall be deemed by the Committee to be qualified.

Except in special cases, no one will be admitted to the Second Year unless he is at least seventeen years of age, and produces a certificate to this effect if deemed necessary.

## Partial Students.

No one will be admitted as a Partial Student unless he is at least sixteen years of age and produces a certificate to this effect if deemed necessary.

## New Exhibition.

The New York Graduates' Society of McGill University offers for competition to candidates for Entrance (men or women) an Exhibition of $\$ 60$.

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# Special Course for edtonurn <br> IN THE FACULTY OF ARTS. 

## Donalda Endowment.

Professors and Lecturers (as on page 3). Lady Superintendent, Miss Helen Gairdner.

The classes for women under this endowment are wholly separate, except those for Candidates for Honours (including most of the additional courses in the Third and Fourth Years,. The examinations are identical with those for men. Women will have the same privileges with reference to Classing, Honours, Prizes and Medals as men.

Regulations for Examinations, Exemptions, BoardingHouses, Attendance, Conduct, Library and Museum are the same as for men. Undergraduates wear the Academic Dress; others do not.

In September, 1897, a Scholarship, value \$125 yearly (tenable for two years), will be offered for competition in Mathematics to Students of the Third Year. The course is the same as for the Mathematical Scholarship open to men.

The Jane Redpath Exhibition is open for competition, at the beginning of the First 0 Second Year, to both men and women, also the Sir J. William Dawson Exhibition offered by the New York Graduates' Society. (See appendix.)

Two other Exhibitions (one of the value of \$120, the other $\$$ Ioo) are open for competition in the First or Second Year to Students of the Donalda Department only. For Subjects see pp. 44 and 72. Candidates for these Exhibitions are allowed, according to the general rule of the Donalda Department, to substitute an additional modern language for Greek in the examination. In this case while the regulation concerning one modern language will, for Entrance only, be as on pp. 43 and 46 , the course in that which is to be substituted for Greek in the Exhibition Examination will be :-

For First Year :-
French.-See page 45 .
or German.-German Grammar and Composition; Theodor Storm, Immensee and von Hillern, Hö̈her als die Kirche (both published by Heath \& Co.). Schiller, Der Gang nach dem Eisenhammer, Das Lied von der Glocke; Stifter Haidedori (Heath \& Co.) ; Goethe, Götz von Berlichingen. Translation at Sight. Translation from English into German.

For Second Year -
French.-See page 73.
or German.-Schiller, Der Neffe als Onkel, Egmont's Leben und Tod, Der Geisterseher, Die Kraniche des Itykus; Goethe, Torquato Tasso. Tratislation at Sight; German Grammar and Composition; Zranslation of French and English into German.

The income of the Hannah Willard Lyman Memorial, Fund will be given in prizes.

## I. MATRICULATION AND ADMISSION.

Greek.-See p. 42.
Candidates who cannot pass in Greek may substitute an additional modern language, subject to the same regulations throughout the course of four years. There will be an entrance examination in German for such candidates.
Latin.- See p. 42.
Mathematics - See p. 42.
Englis h. - See p. 42.
French.- See p. 43.
German. - For 1897, the whole of Joynes's German Reader (o* equivalent amount), the whole of Vandersmissen's German Grammar, Accidence and Syntax (or equivalent) including

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English German exercises. The amount of grammar contained in Sonnenschein's German Grammar (Parallel Grammar Series) would be regarded as an equivalent, if supplemented by exercises in translation into German.

Pastial Students.-Candidates unable to pass in all the above subjects may be admitted as Partial Students to the separate classes ; they may in the First Year under certain conditions make good their standing as Undergraduates at the Christmas or Sessional Examinations.

For changes in the regulations for Entrance in 1898, see appendix, pp. 75-76.

## II. OZDINARY COURSE OF STUDY FOR THE DEGREE OF B.A.

(In separate Classes.)
For all Subjects (except German) in all the Years, see pp.'48-50
The Chemistry of the First Year will be optional in 1897-98.
The first and second-year courses in German are as follows :-

1. Thomas, German Grammar ; Freytag, Die Journalisten ; Uhland, Ballads and Romances (Macmillan's Foreign School Classics). Schiller, Maria Stuert.
Two hours a week.
2. Thomas' German Grammar; Lessing, Minna von Barnhelm; Goethe, Hermann and Dorothea; baumbach, Der Schwiegersohn (Heath \& Co.). Two hours a week.

## Physical Education.

A class will be conducted by Miss Barnjum, which will be optional and open to Partial Students.

## Elocution.

Instruction in this subject will be given to those who desire it, by Mr. J. P. Stephen.

## Honour Courses and Additional Courses.

> (In Mixed Classes.)

Undergraduates desiring to take one of the Honour Courses in Classics, Mathematics, Mathemarical Physics, Mental and Moral Philosophy, English Language and Literature, History, Geology and other Natural Sciences, Modern Languages or such portions of the Honour Courses as constitute the Additional Courses, may in the Third and Fourth Years obtain exemptions to the same extent as men, and must take the lectures with men.

Details will be found on pp. 52-54.

## III. DEGREES.

Students are admissible to the degrees of B.A., M.A., and LL.D., conferred in the usual way, on the usual conditions ; and will be entitled to all the privileges of these degrees, ex$\mathrm{c} \in \mathrm{pt}$ that of being elected as Fellows.

## IV. FEES.

The fees which are the same as for men (see p. 68), are to be paid to the Registrar of the University, from whom tickets for the Library and copies of the Library Rules may be obtained.

## V. LODGINGS, \&c.

Women not resident in Montreal, proposing to attend classes, and desiring to have information as to suitable lodgings, are requested to intimate their wishes in this respect to the Registrar of the University, at least two weeks before the opening of the session. Students desiring information as to the above or other matters are referred to the Lady Superintendent, who will be found in her office in the rooms of the Donalda Department, every day during the session, except Saturday.
Lectures Open to Partial Students, Session 1897-98.
Botany :-Prof. Penhallow.
Zoology :-
Geology :-Dr. Adams.
Experimental Physics :-Prof. Cox and Prof. Callendar.
Psychology and Logic :-Rev. Dr. Murray and Mr. Lafleur.

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Mental Philosophy:-Rev. Dr. Murray and Mr. Lafleur.
Mcral Philosophy :-Rev. Dr. Murray.
Rhetoric:-Mr. Lafleur.
English :-Prof. Moyse.
History :-Dr. Colby.
${ }^{*}$ Latin and Greek : -
${ }^{\text {French : }}$
-German :-
'Mathematics:-
'Mathematical Physics -
Those Courses in which two lectures weekly are delivered will each amount to about 45 lectures, and the others in proportion.

* The lectures on these subjects extend over all the Years of the Course, and the hours will depend on the standing of Siudents with respect to previous preparation as ascertained by examination.

FACULTY OF ARTS, 1897.8.
Lectures in the Donalda Speciat. Course for Women


TIME TABLE．－Cantinued．

| ybars | Hours． | Monday． | Tursday． | Wldnesday． | Thuesday． | Friday． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 合 | 9 |  | Greek． | Latin． | French． |  |
|  | 10 | Mathematics， | $\dagger$ Mathematics． | French． | Greek． | Latin， |
|  | 11 | Botany． | Math，Phys， | Greek． | $\dagger$ Mathematics． | German． |
|  | 12 | Logic． | Latin． | Botany， |  | $\dagger$ Mathematics． |
|  | 2 |  |  | Logic． |  | Logic． |
|  | 3 | German． |  | Mod．History． | French． | Mod．History ． |
|  | 4 |  |  |  |  |  |
| 岂 | 9 | Latin， | $\dagger$ Mineral $(\%)$ German． + Math．Phys． | German． + English． $\dagger$ Greek． | $\begin{aligned} & \text { † English, } \\ & + \text { Math. Phys. } \end{aligned}$ | $\begin{aligned} & \text { + Mineralogy. } \\ & + \text { Math. } \\ & + \text { English. } \\ & \hline \end{aligned}$ |
|  | 10 | + Mental Fhil． $\dagger$ English． + Latin． | Greek． <br> Exp．Physics． |  | Latin． <br> Exp．Physics． | French， |
|  | 11 | French． <br> ＋Greek． | Rhetoric． | $\dagger$ French． | Math，Phys． | + French． Greek． |
|  | 12 | English． | Zoology． <br> + Latin， | $\dagger$ Mathematics． | Zoology． | Math．Phys， |
|  | 2 | ＋Greek． <br> $\dagger$ History． | Botany． | $\dagger$ History． | $\dagger$ English． $\dagger$ Latin． | Botany， |
|  | 3 | Metaphysics， | $\dagger$ French． | Metaphysics． | $\dagger$ History． |  |
|  | 4 | German． | $\dagger$ History． |  | $\dagger$ Mental Phil． $\dagger$ German． | $\dagger$ His：ory． |
| 这 | 9 | Moral Phil． Astronomy（a） | † English． German． + Mineral．（a） | German． | $\dagger$ French． <br> Moral Phil． | $\dagger$ Mathematics． Geology． |
|  | 10 | French． $\dagger$ Latin． | Exp．Physics． Greek． | Geology． <br> + French． <br> $\dagger$ English． | Exp．Physics． | French． + Math．Phys． ＋Eng． |
|  | 11 | $\dagger$ Geology． <br> $\dagger$ English． | Latin． | English Lit． $\dagger$ Math．Phys <br> ＋Ment．Phil． | Math．Phys． <br> $\dagger$ Latin． | $\begin{gathered} \text { Latin. } \\ \text { Astronomy }(a) \\ + \text { Geology. } \end{gathered}$ |
|  | 12 | + Greek． Geology． | Moral Phil． | Mineralogy（a） $\dagger$ Greek．＋Math． $t$ Geology． | Greek | $\begin{aligned} & \text { Math. Phys. } \\ & + \text { Greek. }+ \text { Eng. } \\ & + \text { Mental Phil. } \end{aligned}$ |
|  | 2 | $\dagger$ History． | Botany． | $\dagger$ History． |  | Botany． |
|  | 3 |  |  |  | I History． |  |
|  | 4 | $\dagger$ German． | $\dagger$ History |  | German． | ＋History． |

（a）Durıng First Term．（b）Second Term．＋For Candıdates for Honours．
The Chemical Laforatory is open every day（except Saturday）from 9 a．m．to 5 p．m．
Practical Physics：Third Year，Monday，io a．m．to I p．m．，or Friday， 2.30 p．m．to $5.30 \mathrm{p} . \mathrm{m}$ ．；Fourth Year，Wednesday， $2.30 \mathrm{p} . \mathrm{m}$ ．to $5.30 \mathrm{p} . \mathrm{m}$ ．

The Botanical Laboratories are open daily from 9 a．m．to $5 \mathrm{p} . \mathrm{m}$ ．Saturday Classes in General Morphology（2nd Year），iI a．m．to I p．m．

Zoology：Demonstrations on Saturday Forenoons．
$\mathrm{N}, \mathrm{B},-$ The hours in this tabie are subject to alteration during the Session．

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## FACULTY OF APPLIED SCIENCE.

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## fuculty of sipplied §xiente.

William Peterson, M.A., LL.D., Principal (ex officio).
Henry T. Bovey, M.A., D.C.L., LL.D., M.Inst.C.E., F.R.S.C., Dean of the Faculty.

PROFESSORS.
B. J. Harrington, M.A., Ph.D., F.R.S.C., Greenshields Professor of Chemistry and Mineralogy.
Henry T. Bovey, M.A., D.C.L., Scott Professor of Civil Engineering and Applied Mechanics.
C. H. McLeod, Ma.E., F.R.S.C., M.Can.Soc.C.E., Professor of Surveying and Geodesy, Lecturer in Descriptive Geometry, and Superintendent of the Observatory.
G. H. Chandler, M.A., Professor of Applied Mathematics.
C. A. Carus-Wilson, M.A., A.M.Inst.C.E., M.Inst.E.E., McDonald Professor of Electrical Engineering.
John Cox, M.A., McDonald Professor of Physics.
J. T. Nicolson, B.sc., M.Can.Soc.C.E., Workman Professor of Mechanical Engineering, and Lecturer in Thermodynamics.
H. L. Callendar, M.A., F.R.S., McDonald Professor of Physics.

Stewart Henbest Capper, M.A., A.R.I.B.A., A.R.C.A., McDonald Professor of Architecture.
J. B. Porter, E.M., Ph.D., M.Can Soc.C.E., McDonald Professor of Mining.

## ASSISTANT PROFESSORS AND LECTURERS.

Cecil B. Smith, Ma.E., M.Can.Soc.C.E., Assistant Professor of Civil Engineering.
R. S. Lea, Ma.E., Asso.M.Can.Soc.C.E., Assistant Professor of Civil Engineering, and Lecturer in Mathematics.
Henry F. Armstrong, Assistant Professor of Descriptive Geometry and Freehand Drawing.

Herbert Engir R. J. Dur anical Nevil No
J. G. G. K ing an
L. Herdt,
H. M. Tor F. H. Pitc Alexande H. T. Bar:

With tl 2.nd Lectu Charles F
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Geolog
C. W. Coli

Herbert W. Umney, A.M.Inst.C.E., Assistant Frofessor of Civil Engineering.
R. J. Durley, B.Sc., A.M.Inst.C.E., Assistant Professor of Mechanical Engineering.
Nevil Norton Evans, M.A.Sc., Lecturer in Chemistry.
J. G. G. Kerry, Ma.E., Asso.M.Can.Soc.C.E., Lecturer in Surveying and Descriptive Geometry.
L. Herdt, B.A.Sc., E.E., Lecturer in Electrical Engineering.

DEMONSTRATORS.
H. M. Tory, M.A., in Physics.
F. H. Pitcher, M.A.Sc., in Physics,

Alexander Brodie, B.A.Sc., in Practical Chemistry.
H. T. Barnes, M.A.Sc., in Physics.
. . . . . . in Mechanical Engineering.
in Mining.

With the foregoing are associated the following Professors 2.nd Lecturers of the Faculty of Arts :-

Charles E. Moyse, B.A., Molson Professor of English Language and Literature.
D. P. Penhallow, B.Sc., M.A.Sc., F.R.S.C., Professor of Botany.

Frank D. Adams, M.A.Sc., Ph.D., F.G.S., Logan Professor of Geology.
C. W. Colby, B.A., Ph.D., Professor of History.

Professor of Zoology.

## § I. GENERAL STATEMENT.

The Instruction in this Faculty is designed to afford a complete preliminary training, of a practical as well as theoretical nature, to Students who desire to pursue the profession of Architecture, or who are preparing to enter any of the various branches of the professions of Engineering and Surveying, or are destined to be engaged in Assaying, Practical Chemistry, and the higher forms of Manufacturing Art.

The Degrees conferred by the University upon such undergraduates of the Faculty as shall fulfill the conditions and pass the Examinations hereinafter stated will be, in the first instance, " Bachelor of Applied Science," mention being' made in the Diploma of the particular Department of study pursued ; and, subsequently, the degree of "Master of Engineering" or " Master of Applied Science." (§IV.)

## § II. SUBJECTS OF INSTRUCTION.

The table on the following page shews the subjects of instruction and the hours per week devoted to each subject in the several Courses, viz. :-
I.-Architecture.
II.-Civil Engineering and Surveying.
III.-Electrical Engineering.
IV.-Mechanical Engineering.
V.-Mining Engineering.
VI.-Practical Chemistry.


## § III. MATRICULATION AND ADMISSION.

All Students are recommended to take the First Year and Second Year of the Arts Course. They are then admitted into the Faculty of Applied Science without examination. (See $s$ IV. iv.)

Students and Graduates in Arts will be admitted to such standing in the Faculty of Applied Science as their previous studies will warrant, but are recommended to take the drawing and shop work during their Arts Course.

Candidates for examination must present themselves on the first day of examination, and all Students must attend punctually at 9 a.m. on Tuesday, September 2ist, when the lectures will begin.

Examinations for entrance will be held in 1897 (1) on June Ist, an dollowing days, in McGill College and at local centres, and (2) on Thursday, September 16th, and following days, in McGill College only.

Any Head Master or other person desiring a local examination in June must, before May roth, submit the name of some suitable person, preferably a University graduate, who is willing to act as Deputy Examiner, i.e., receive the questions, hold the examinations, and forward the answers toMontreal. Further particulars relating to this examination will be given on application to the Secretary of the University.

## SUBJECTS OF EXAMINATION.

Mather_atics-Arithmetic-All the ordinary rules, including square root and a knowledge of the Metric System. Algebr"-Elementary rules, involution, evolution, fractions, indices, surds, simple and quadratic equations of one or more unknown quantities. Geometry -Euclid, Bks. I. II., III., IV. and VI., with definitions of Bk. V., and easy deductions. Trigonometry-As in Hamblin Smith, pp. i100, omitting Ch . XI.
English.-Writing from Dictation. Grammar-A paper on English Grammar, including Analysis. The candidate will be expected to show a good knowledge of Accidence, as treated in any grammar prepared for the higher forms of schools. A similar statement applies to grammatical Analysis. West's English Grammar may be regarded as giving the minimum amount of information expected.

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English History.-The candidates will be required to give the chief details of leading events, and to know the genealogy of the various royal lines. While any text-book written for the upper forms of schools may be used in preparation for the examination, Gardiner's Outline of English History (Longmans) is recommended. Com-position.-The candidate will write a short essay on a subject given at the time of the examination. [Also, for 1898 and subsequently, Literature- Shakspere's Richard II, ed. Deighton (Macmillan), and Scott's Lady of the Lake, ed. Stuart (Macmillan).]

Also, in 1898 and subsequently, any one of the following languages :
French.-Grammar up to the beginning of Syntax. An easy translation from French into English; and from English into French ; Dictation or similar exercise. Special credit will be given for evidence of familiarity with the spoken language.
German.-The first eighty pages of Joynes' German Reader (or esfuivalent amount) together with German Accidence and translation into German as in the First part of Vandermissen's German Grammar (or equivalent amount).

Greek.-Xenophon, Anabasis, Book I.; Greek Grammar.
Latin.-Cessar, Bell. Gall., Books I. and II ; and Virgil, Aeneid, Book I. Latin Grammar.

In both Greek and Latin, Translation at sight and Prose Composition (sentences or easy narrative, based upon the prescribed prose text), will be required.

At the September, but not at the June, examination, other works in Greek or Latin equivalent to those specifiel may be accepted, if application be made to the Professors of Classics at least a fortnight before the day of examination.

Candidates who at the examination for Associate in Ats have passed in the above subjects are admitted as Undergraduates.

Candidates who have passed Academy Grade II of the Province of Quebec, or the Preliminary Subjects of the Associate in Arts, will, on entrance, be exempt from examination in English Grammar, Dictation, English History and Arithmetic.

Candidates who fail in one or more subjects at the June examination, or who have taken part only of the examination and present themselves again in the following September, will be exempted from examination in those subjects only ir. which the Examiners may have reported them as specially qualifed.

At the June examination, candidates from Ontario may present an equivalent amount from the books prescribed for the Junior Matriculation Examination of the University of Toronto.

The Matriculation or Junior Leaving Examination accepted by the Universities of Ontario is accepted by the Faculty, in so far as the subjects of their programme satisfy the Examiners of the Faculty, i. e., when the subjects taken are the same as, or equivalent to, those required in McGill University.

In the case of Candidates from Ontario, Second Class nonprofessional certificates will be accepted protanto in the Examination.

Candidates who pass an examination at entrance in Freehand Drawing, equivalent to the First Year examination, may, on the recommendation of the examiner, be exempted from this subject in the First Year.

Candidates who produce certificates of having already completed a portion of a course in some recognized Schnol of Applied Science may be admitted to an equivalent standing.

Partial Students.-Students may be allowed to take one or more courses of instruction, upon showing, by examination or otherwise, that they are qualified to do so.

## § IV. EXAMINATIONS

I. FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.
i. Faculty Examinations.

There will be a Christmas examination for Students of the First Year in all the subjects, and for Students of the other years in such subjects as shall be determined by the Faculty. A sessional examination in all the subjects will be held at the end of the First and Second Years.
2. University Examinations.
(a) There will be a Primary examination at the end of the Third Year in all the subjects of that year. Candidates must pass this Examination before entering the Final Year.
(b) There will be a Final examination for the degree of Bachelor of Applied Science at the end of the Fourth Year, in all the subjects of that year.

Successful Students will be arranged in order of merit.
II. FOR THE DEGREE OF MASTER OF ENGINEERING.

Candidates must be Bachelors of Applied Science of at least three years standing, and must produce satisfactory cer-
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tificates of having been engaged during that time upon bona fide work in either the Civil, Electrical, Mechanical, or Mining Branch of Engineering.

They must pass with credit an examination extending over the general theory and practice of Engineering, in which papers will be set having special reference to that particular branch upon which they have been engaged during the three preceding years.

Candidates must present applications for examinations, together with the necessary certificates and fees. The Faculty will notify the candidates whether their certificates are satisfactory, and also of the date of the examination. (See also § V.)

## III. FOR THE DEGREE OF MASTER OF APPLIED SCIENCE

Candidates must be Bachelors of Applied Science of at least three years standing, must present certificates of having been employed during that time in some branch of scientific work, and must pass with credit an examination on the theory and practice of those branches of scientific work in which they may have been engaged. The other conditions as mader the last heading. (See also $\S V \mathrm{~V}$.)
IV. SPECIAL PROVISIONS FOR OBTAINING THE TWO DEGREES OF BACHELOR OF ARTS AND BACHEIOR OF APPLIED SCIEN CE IN SIX YEARS.
The Regulations heretofore in force have been modified so as to enable Students to take the two degrees of B.A. and D.A.Sc. in six years, as follows :-
I. Students who have passed the Intermediate in Arts may enter the First Year of the Applied Science Course, and will be exempted from the modern languages which they have already taken in Arts.
2. The remaining subjects required for the B.A. degree may be spread over three years instead of two.
3. The Faculty of Arts will accept the Mathematical Physics of the Applied Science Course in lieu of the Mathematical Physics of the Arts Course.
4. The Faculty of Arts will accept the Laboratory Work in Physics in lieu of the Natural Science of the Arts Course.

A certificate of Licentiate in Arts will be given along with the professional degree in Applied Science to those who, previous to entrance upon their professional studies proper, have completed two years in the Faculty of Arts, and have duly passed the prescribed examinations therein, but who do not wish to proceed to the degree of B.A.

## § V. GRADUATE COURSES

Students who take the Bachelor's degree in one of the courses provided by the Faculty of Applied Science may graduate in any of the remaining courses by attending one or more subsequent sessions.

Graduates may also take an advanced course in the branch in which they have received their degree. On passing an examination at the end of such advanced course, the Master's degree will be conferred without further examination, as soon as satisfactory certificates of having been employed for two years in practical work have been received.

Students are strongly recommended to take a Graduate Course, and special arrangements will be made for advanced and research work in the following :-

In Architecture-Advanced Study in Design. (See XIIL.)
In Chemistry and Mineralogy. (See § XII., 8, 9 and in, and § XIII., 4.)

In the determination and comparison of the errors and the co-efficients of standards of length. (See § XII., 3, and § XIII., 7.)

In the determination of gravity. (See § XIII., 7.)
The elasticity and strength of materials. (See § XII., 2, and $\S$ XIII., 17.)
The efficiency of pumps and hydraulic motors. (See § XII., 2, and § XIII., 8.)

The efficiency of power transmission by air, water, gas, steam and electricity. (See § XII., 2, 6, 7.)

The efficiency of steam, gas, oil and hot-air engines (simple and compound) and of refrigerators. (See § XII., 7 and 10.)

The power (See

The efficiency of machines and machine tools, and the power absorbed by the several processes of mec aanical work. (See \$ XII., 7.)

The efficiency of dynamometers, belting and shafting, including investigations into the relative merits of the several unguents. (See § XII., 7.)

The efficiency of the several types of boilers, including? investigations on the heat-producing power of the several fuels. (See § XII., 10.)

On the efficiency of dynamos and electric motors.
The flow of water through orifices and pipes, and over weirs. (See § XII., 2, and § XIII., 8.)

In Geodesy and Practical Astronomy. (See § XIII., 7.)
In Street Railway design and theory, and in alternating apparatus.

In Physics.-The McDonald Physics Building has been equipped and arranged with special reference to Graduate Courses and original research work in various branches of pure Physics. Every facility will be afforded in the workshops for the construction of special apparatus required for such investigations. (See \$ XIII., 16.)

In Mathematics.-Students taking Graduate Courses will receive guidance in any advanced Mathematics required in connection with their work.

## § VI. ATTENDANCE AND CONDUCT.

I. Absence from any number of lectures can only be excused by necessity or duty, of which proof must be given, when called for, to the Faculty. The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a session shall in each case be determined by the Faculty. The Professor may, at his discretion, refuse credit for attendance, on the ground of lateness, inattention or disorderly conduct.
2. Any student who does not report his residence on or before November ist in each year is liable to a fine of one dollar. All subsequent changes of address must be immediately reported to the Dean.
3. Every Student is required to deposit with the Secretary of the University the sum of $\$ 5.00$ as caution money for damage done to the furniture, machinery or other apparatus. In the case of improper
or disorderly conduct in the University buildings or grounds, the Faculty may impose such penalty as may be deemed advisable, and may also inflict fines, to be deducted, if the Faculty thinks fit, from the caution money.

If individual responsibility for damage cannot be traced, a pro rala assessment will be made over all of the Students more directly concerned.

## § VII. LIBRARY.

Librarian :-C. H. Gould, B.A.
Assistant Librarian :-H. Motr.
I. During the College Session the University Library is open daily (except on Sundays and general public holidays), from 9 a.m. till 5 p.m.; and the Reading Rooms from 9 a.m. till 6 p.m., and also from 8 till io p.m. On Saturdays, both Library and Reading Rooms close at 5 p.m. During vacations, both Library and Reading Rooms close at 5 p.m., and on Saturdays at I p.m.
2. Students in the Faculty of Applied Science, who have paid the Library fee, may borrow books on depositing the sum of $\$ 5$ with the Bursar, which deposit, after the deduction of any fines due, will be repaid at the end of the session on the certificate of the Librarian that the books have been returned uninjured.
3. Graduates in any of the Faculties, on making a deposit of \$5, are entitled to the use of the Library, subject to the same rules and conditions as Students; but they are not required to pay the annual Library fee.
4. No borrower other than a Professor or Lecturer may keep any book belonging to the Library longer than two weeks, on penalty of a fine of 5 cts a volume for each day of detention, but any borrower may renew the loan of a book for fitting reasons. A borrower incurring fines beyond the sum total of $\$ 1$ shall be debarred from the use of the Library until they have been paid.
5. Before leaving the Library, readers must return the books they have obtained, to the attendant at the Delivery Desk.

All persons using books remain responsible for them, so long as the books are charged to them, and borrowers returning books must see that their receipt for them is properly cancelled. Damage to, or loss of books shall be made good to the satisfaction of the Librarian and of the Library Committee. Writing or making any mark upon any book belonging to the Library is unconditionally forbidden. Any persons found guilty of wilfully damaging any book in any way shall be excluded from the Library, and shall be "ebarred from the use thereof for such time as the Library Committee may determine.
6. Silence must be strictly observed in the Library.
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## § VIII. PETER REDPATH MUSEUM.

I. The Museum will open every lawful day from 9 a.m. till 5 p.m., except when closed for any special reason by order of the Principal or Committee.
2. Students can obtain tickets of admission from the Principal on application.
3. Students are to enter by the front door only, except when going to the lectures.
4. Any students wilfully defacing or injuring specimens, or removing the same, will be excluded from access to the Museuna for the session.

## § IX. FEES.

The total fees for Undergraduates entering the First and subsequent years are $\$ 150.00$ per annum, and this amount includes the fees for Tuition, Library, Matriculation, Graduation, Laboratories, Workshops, Gymnasium, Grounds, etc.

The Matriculation fee of $\$ 5.00$ (included in the $\$ 150.00$ fee) must be paid to the University Secretary previous to the examination.

Deposit for caution money (see § VI.), \$5.00.
Each Student will be required to pay a fee of $\$ 5.00$ for wear and tear of apparatus and machinery.

Partial Students will be admitted to the Professional Classes in any year on payment of the ordinary fees for that year ; or they may attend the lectures on any subject on payment of a special fee. The fee for each subject taken in the Arts Faculty is $\$ 4.00$ per session. In all other subjects, the fee, unless otherwise specified, is $\$ 12.50$ for each term, or $\$ 25.00$ for the whole session.

Special Laboratory Ffes.-Partial Students desirous of taking Courses in any of the several Laboratories will be required to pay a fee of $\$ 25.00$ for each Course.
Spectal Workshop Fees.-Partial Students desirous of taking the workshop courses will be required to pay the following fees, which include cost of materials and use of all tools :

|  |  | the whole Session from September to April : \$25 00 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 days, or 14 | " | " | " |  | 45 00 |
| 3 days, or 21 |  | " | " |  | 60 00 |
| 4 days, or 28 |  |  | " |  |  |

Fee for Supplemental Examination, at date fixed by $\begin{gathered}\text { Faculty }\end{gathered}=00$
" " if for any special reason granted at any other date than that fixed by the Faculty

Fee for Registration at time of graduation 250
The fees must be paid to the Secretary, and the tickets shown to the Dean, within fourteen days after the commencement of attendance in each Session. In case of default, the Student's name will be removed from the College books, and can be replaced thereon only by permission of the Faculty, and on payment of a fine of $\$ 2$.

The fee for a Graduate Course is $\$ \mathbf{1 5 0 . 0 0}$. Graduates of this Faculty will be required to pay only one-half of this amount.

Fee for the Degree of Master of Engineering or Master of Applied Science, \$ro.oo.

If for any special reason the Degree of Ma.E., or M.A.Sc., be granted in absentia, the fee will be $\$ 25.00$.

## § X. MEDALS, EXHIBITIONS, PRIZES AND HONOURS.

i. The British Association Medals and Exhibition, founded by the British Association for the Advancement of Science, in commemoration of the meeting held in Montreal in the year 1884.

A British Association Medal and Prize in Books is open for competition to students of the Graduating Class in each of the six Departments of the. Faculty, and, if recommended by the xaminers, will be awarded to the student taking the highest position in the final examinations.
2. The Governor General's Silver Medal (the gift of His Excellency The Right Honourable the Earl of Aberdee 1).

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The Medal will be awarded in the Graduating Class. The conditions will be specified at the opening of the Session.
3. A Professor's Prize of $\$ 20.00$ in books will be awarded to the student of the Graduating class who obtains the highest standing in the subject of Hydraulics (Theoretical and Practical).
4. Summer Work (See § XI., I.) The following pızes are offered for the best summer Theses :-

To the students of the Civil Engineering Course a prize of $\$ 25$ presented by H. Paton, Esq.

To the students of the Electrical Engineering Course a prize of $\$ 25$ presented by E. B. Greenshields, Esq., B.A.

To the students of the Mechanical Engineering Course a prize of $\$ 25$ presented by W. Laurie, Esq., M.E., M.Can. Soc.C.E.

To the students of the Mining Engineering Course a prize of $\$ 25$ presented by the Canadian Mining Review.

Two Prizes of $\$ 35$, and $\$ 15$ offered by the General Mining Association of the Province of Quebec will be open for competition to students from McGill University, Toronto University and Queen's University, and will be awarded to the two students presenting the best Summer Theses on some subject connected with mining. Preference will be given to those Theses which show decided originality.

To the students of the Architectural Course a prize of \$25 p:esented by A. T. Taylor, Esq., F.R.I.B.A., R.C.A., President of Quebec Architects' Association.

The following Exhibitions and Prizes will be open for competition at the beginning of the Session. Students are required to notify the Dean of their intention to compete, at least one week before the commencement of the examination.
5. A British Association Exhibition of $\$ 50.00$ and prize of $\$ 25.00$ to Students entering the Fourth Year, the subjects of examination being the Mathematics and Theory of Structures of the Ordinary Course.
6. A Scott Exhibition of $\$ 60.00$, founded by the Caledonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, and a prize of $\$ 25.00$ presented by
H. Paton, Esq., to Students entering the Third Year, the subjects of Examination being :-
(a) An Essay, in the form of a character sketch, on Faraday, or Champlain, or George Stephenson. On the day of the Examination, the candidates will be required to write an essay on one of these characters, three hours being allowed for this. (b) Mathematics of the Second Year Course.
A. Scott Exhibition of $\$ 60.00$, founded by the Caledonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, and three prizes of \$40.00, \$25.00 and \$15.00, to Students entering the Second Year, the subjects of Examination being :-
(a) An Essay, in the form of a character sketch, on Tennyoon, or Tyndall or Frontenac. On the day of the Examination, the candidates will be required to write an essay on one of these characters, three hours being allowed for this. (b) Mathematics of the First Year Course. (c) Descriptive Geometry of First Year Course.
7. A Prize of $\$ 10.00$, presented by the McGill University Graduates' Society of British Columbia, to Sudents entering the Third Year, the subject of Examinati, ing the Descriptive Geometry of the Second Year Co
8. Two Prizes, each of \$1o.00, pic d by J. M. McCarthy, Esq., B.A.Sc., to Students entering the Third Year, for proficiency in Levelling or Transit Work.
9. Three prizes, of $\$ 12.00, \$ 8.00$ and $\$ 5.00$, presented by A. C. Hutchıon, Esq., R.C.A., will be awarded to the three undergraduates taking the highest standing in the Freehand Drawing of the First Year.
10. A scholarship of the value of $\$ 100$, for proficiency in Practical Chemistry, on the endowment of the late Dr. T. Sterry Hunt, to students entering the Second Year of the Chemical Course. For further conditions apply to the Dean.
iI. Prizes or certificates of merit are given to such Students as take the highest place in the Sessional and Degree Fxaminations.

I2 Honours.-On graduation, Honours will be awarded for advanced work in Professional subjects.
13. Science Scholarships granted by Her Majesty's Commission for the Exhibition of 1851.-The Scholar-
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ships of $\mathrm{Ef}_{150}$ sterling a year in value are tenable for two or, in rare instances, three years. They are limited, according to the Report of the Commission, "to those branches of Science (such as Physics, Mechanics and Chemistry) the extension of which is specially important for our national industries." Their object is, not to facilitate ordinary collegiate studies, but "to enable Students to continue the prosecution of Science with the view of aiding in its advance or in its application to the industries of the country."

A nomination to one of thesé scholarships for the year 1897 was placed by the Commission at the disposal of McGill University, and another may be granted in 1899.

It is open to Students of not less than three years standing in the Faculties of Arts or Applied Science, and is tenable at any University or at any other Institution approved by the Commission.

This Exhibition has been awarded as follows :-
Evans, P., 1891. Macphail, J. A., $1893 . \quad$ King, R. O., 1895. Gill, J. L. W., 1897.
14. The Mason prize of $\$ 50.00$ in Electrical Engineering, given by Dr. A. F. Mason for original investigation in the practical application of Electricity.
S.-A prize of $\$ 20.00$, presented by C. J. Fleet, B.A., B.C.L., for bench and lathe work in the woodworking department, open to Students of not more than two terms standing in workshop practice.

## § XI. SPECIAL PROVISIONS.

I. Summer Work.-During the summer vacation following the close of each year, all students entering the Third and Fourth Years are required to prepare a thesis on a subject specified by the Faculty. Any student may substitute for the specified subject, a report on some practical work in course of construction. The marks given for these theses will be added to the results of the sessional examinations. The theses must be handed in to the Dean on or before the ist October.
2. Partial Students may be admitted to the professional ciasses upon payment of special fees. ( $\S$ IX)
3. Students in Applied Science may, by permission of the Faculty, take the Honour Classes in the Faculty of Arts.
4. Undergraduates in Arts of the Second and Third Years, or Graduates of any University, entering the Faculty of Applied Science, may, at the discretion of the Professors, be exempted from such lectures in that Faculty as they have previously attended as Students in Arts.
5. Students who have failed in a subject in the Christmas or Sessional Examinations may regain their standing by passing a supplemental examination at a time appointed by the Faculty. Unless such supplemental examination is passed, Students will not be allowed to proceed to any subsequent examination in the subject. A second supplemental examination will not be granted unless under exceptional circumstances, to be investigated in each case by the Faculty.
6. Students may be required to answer satisfactorily a weekly paper on such subjects of the course as the Faculty may determine.
7. Credit will be given in the Sessional Examinations for work done during the session in certain of the subjects which will be specified at the commencement of the first term.
8. Students who fail to obtain their Session, and who in consequence repeat a Year, will not be exempted from examination in any of those subjects in which they may have previously passed, except by the express permission of the Faculty. Application for such exemption must be made at the commencement of the Session.
9. Partial Students are not eligible for prizes.

Io. Cerificates may be given to Students who have passed through any of the special courses attached to the curriculum.
ir. The headquarters of the Canadian Society of Civil Engineers are located in Montreal. The Society holds fortnightly meetings, at which papers upon practical current engineering subjects are read and discussed. Undergraduates joining tize Society as Students may take part in these meetings, and acquire knowledge of the utmost importance in relation to the practical part of the profession.
12. Caps and gowns, also the overalls for the workshops, may be obtained from the janitor of the Engineering Building.

## § XII. SPECIAL LECTURES.

In addition to the ordinary work of the Faculty, the following courses of special lectures were delivered during session 1896-97 :-

Professor Nicolson, five lectures, on the " Transmission of Power by Compressed Air and Gas."

Professor Durley, three lectures, on the "Transmission of Power by Steam and Wire Ropes, and on Thermal Storage.

Professor Capper, twelve lectures, on "Ancient and Mediaeval Architecture."
H. Irwin, B.Sc., M. Can. Soc. C.E., three lectures, on "The Legal Aspects of Land Surveying."

Also under the auspices of the Applied Science Graduates' Society :
J. A. L. Waddell, Ma.E., M. Am. Soc. C.E., a series of lectures on " Bridge Designing."
L. Treadwell. B.A.Sc., M. Am. Soc. C.E., lectures on "Bridge Work and on Foundations for Bridges and other large Structures."
L. Herdt, B.A. Sc., E.E., on "Electrical Power Transmission."
J. M. McCarthy, B.A.Sc., M. Am. Soc. C.E., lectures on " Bridge Sub-Structure of the Sorel Bridge."

Also under the auspices of the McGill Mining Society :
E. P. Mathewson, B.A.Sc., a lecture on "a Modern Silver Lead Smelting Plant."
J. F. Johnson, B.Sc., a lecture on "the Manufacture and Use of Explosives."
J.E. Hardman, B.Sc., a lecture on "Mining in British Columbia."

## § XIII. COURSES OF LECTURES.

I. ARCHITECTURE.

Professor :-S. Henbest Capper, M.A.
Lecturer :-H. F. Armstrong.
The professional work of the Architectural Course begins in the Second Year, for which the first, or preliminary, year is preparatory, e pecially in the departments of Mathematics and Drawing (Freehand, Lettering, and Projections).

The work of the Second Year is intended to be of a general character, and is so planned as to include so far as possible Architectural work suitable for Civil Engineering Students, for whom the lectures on the History of Architecture and on Building Construction are compulsory.

The Third and Fourth Years are devoted to more specialized architectural study in various branches, and a Fifth or Graduate Year will be organized for advanced study, especially in design.

In the Second Year the Historical Course embraces a rapid resum : of Architectural History from ancient Egyptian to modern times. The great eras of European civilization are successively dealt with and the evolution of styles is traced in their constructional and ornamental forms and methods. The course embraces Ancient Egypt, Ancient Greece, Rome and Byzantium, Early Chris. tian and Romanesque Architecture, Gothic, the Renaissance and Revived Classic.

In the Third and Fourth Years the historical lectures are arranged in continuation and extension of this general course, detailed courses being delivered upon Ecclesiastical, Domestic, and Public Architecture, with the object of preparing the Student for the problems and requirements of modern work in the light of the various solutions worked out for similar problems in the past and with the help derived from familiarity with historic evolution in architecture.

The constructive side of architecture is dealt with in the Architectural Engineering Courses.

In the Second Year a general course, common to all Architectural and Engineering Students, is given upon Building Construction and Materials, which is supplemented and continued in the Third Year, combined with practical work in the Testing Laboratories.

The Theory of Structures is dealt with in the Third and Fourth Years, as also Municipal Engineering and Sanitation and Hygiene ; special courses on Heating and Ventilation, and on Electrical In stallaticn are delivered in the Fourth Year.

Specifications, including Working Drawings and Architectural Practice, are dealt with in the Third and Fourth Years.

For the scientific requirements of the profession the courses in Mathematics are very fully developed and include Descriptive Geometry, Shades and Shadows and Perspective. Surveying is studied in the Second Year, and a course in Geology is given in the Third.

In Drawing full instruction is given during all four years ; treehand drawing (figure and ornament) from the cast and architectural draughtmanship occupying much of the students' time during the three years of the professional course. Modelling in clay is included in the Third Year ( $\$$ XIII, 14).

Problems in Architectural Design form the basis of work in the Architectural Drawing Class from the earliest practicable period
and are combined with the study of the Classical Orders and with the Elements of Architecture (doors, windows, arches and arcades, cornices, mouldings, etc.), upon which, as well as upon historical ornament, courses of lectures are given.

In the Fourth Year a course of lectures is included upon General Art History, so as to place the architectural student in touch not only with the decorative details of the different architectural styles, but also with the contemporary forms in other branches of art, especially the decorative arts employed in building.

## Architectural Equipments.

The architectural equipment consists of photographs and illustrations, an arc-light electric lantern and a large collection of slides, diagrams, models, casts, and a library for architectural study. (See § XIV).

## Women Students.

In accordance with a recommendation of the Faculty, the Architectural and Modelling Classes will be open to Women Students. Information as to admission may be obtained on application to the Dean of the Faculty or to the Professor of Architecture.

## 2. CIVIL ENGINEERING AND APPLIED MECHANICS.

Professor :-Henry T, Bovey, M. Inst. C. E. (Scott Professor of Civil Engineering and Applied Mechanics).
Assistant Professors :-Cecil B. Smith, Ma.E.
R. S. Lea, Ma.E.

Herbert W. Umney, A.m.Inst. C.E.
Theory of Structures.
The lectures on this subject embrace :-
(a) The analytical and graphical determination of the stresses in the several members of framed structures, both simple and complex, as, e.g., cranes, roof and bridge trusses, piers, etc.
(b) The methods of ascertaining and representing the shearing forces and bending moments to which the members of a structure are subjected.
(c) A study of the strength, stiffness and resistance of materials, including a statement of the principles relating to work, inertia, energy and entropy, together with a discussion of the nature and effect of the different kinds of stress and the resistance offered by a material to deformation and to blows.
(d) The design and proper proportioning of beams, pillars, shafts, roois, bridge piers and trusses, arches, arched ribs, masonry dams, foundations, earth works and retaining walls.

Graphics.-A complete course of instruction is given in the graphical analysis of arches and of bridge, roof and other trusses, and in the graphical solution of mechanical problems. It is therefore possible for the student to apply both the analytical and graphical methods of treatment, and thus to verify the accuracy of his calculations.

Text-Book.-Bovey's Theory of Structures and Strength of Materials.

The Laboratory Work (see also XIII.) is as follows :-
Fourth Year.-During the Fourth Year, students are expected to engage in a research upon the physical properties of a material of construction, with special reference to the form and position of such material in the structure.

Third Year.-During the Third Year the Laboratory work will include the following :-
(a) The testing of Timber.-Transverse Tests on Hard and Soft Timber. Compressive Tests on specimens of various lengths cut out of the same timbers. Bearing Tests on specimens from same timbers. Tensile Tests on specimens from same timbers. Shearing Tests on specimens from same timbers.
( ) The testing of Iron and Steel.-Tensile Tests of Wrought Iron, Mild Steel, Cast Steel and Cast Iron. Compressive Tests of ditto. Transverse Tests of ditto.
(c) The testing of Brick and Stone.
(d) The testing of Concrete and Cement.-A complete course in the Testing of Cements according to the Standard Methods of the Canadian Society of Civil Engineers.

## Graduate Course.

Special arrangements are made for advanced and research work on the nature, elasticity and strength of the several materials of construction.

## Materials of Construction.

(a) Timber-Growth, characteristics, diseases, enemies, preservatives, life, strength, tests, etc.
(b) Iro $_{1}$ and Steel.-Manufacture, characteristics, strength, special uses, tests, etc.
(c) Brick, Terra Cotta.-Manufacture, chemistry of clays, uses, strength, tests, etc.
(d) Stone, Slate, etc:-Characteristics, weathering qualities, strength, hardness, uses, tests, etc.
(c) Cement, Lime, Mortars, Concretes, etc.-Chemistry of cements, manufacture, uses, strength, tests, etc.

## Elements of Building Construction.

(a) Foundations on Land-Bearing power of soils, safe loads, testing, drainage, etc.
(1) Piling, bearing power, formulae and data, cost.
(2) Pedestals and footings of concrete and steel, timber grillages, etc.
(3) Methods of timbering and excavation in sinking, pumping, Poehle, air lift, etc.
(b) Foundations in Water or Deep Foundations.-Preparing foundations by piling, dredging, etc., coffer dams, open caissons, pneumatic caissons and piles, open dredging, Poetsch freezing process, hydraulic shields, blasting, explosives.
(c) Foundation Courses-Monolithic concrete, concrete and steel, stone, timber, broken stone, drainage, equal distribution of lcads to prevent unequal settlement.
(d) Walls and Buildings.-(i) Brick.-masonry, mortar, joints, joints, arches, centering, strength, specifications, cost.
(2) Stone.-Bonding, laying, classes of masonry, mortar, joints, methods and nomenclature of cutting, tooling, strength, specifications, cost.
(3) Concrete Artificial stone, terra cotta, enamelled brick.
(4) Timber.-Simple joints, framing for buildings and structures.
(5) Steel Columns.-Girders, flooring, rivetting, fire-proofing of walls and ceilings.
(e) Retaining Walls - Abutments, arches, culverts, engine foundations of brick, stone, concrete.

Lectures to be illustrated by wall diagrams, lantern slides, models and museum specimens.

## Hydraulics. (For Laboratory Work, see § XIII.)

The lectures deal with this subject both theoretically and with reference to its practical application.

The Student is instructed in the fundamental laws governing the equilibrium of fluids, and in the laws of flow through orifices, mouthpreces, submerged (partially or wholly) openings, over weirs, through pipes and in open channels and rivers. The impulsive action of a free jet of water upon vanes, both straight and curved, is carefully discussed, and is followed by an investigation of the power and efficiency of the several hydraulic motors, as, e.g., Reaction Wheels, Pressure Engines, Vertical Water Wheels, Turbines, Pumps, etc.

Text-Book.-Bovey's Hydraulics.
The laboratory work (see also \& XIII.) will include the following :-
(a) Flow through orifices.-The determination of the coefficients of discharge, velocity, etc.
(b) Flow over weirs.-The determination of the coefficient of discharge with and without side contraction. Also the measurement of the section of the stream.
(c) Flow through pipes.-The determination of the effect upon the flow, of angles, bends and sudden changes of section.
(d) Impact.-The determination of the coefficient of impact.
(e) Motors, etc.-The determination of the efficiency of Pelton and other wheels, of vortex and other turbines, of centrifugal and other pumps, etc.

Hydraulic Machinery,
The lectures in this Course are of a descriptive character, including the details of construction of Vertical and Horizontal Water Wheels, Three Cylinder Engines, Pumps, Accumulators and Presses, Workshop Tools and Appliances, Dock and Harbour Machinery, and the Transmission of Power.

## Graduate Course.

Special arrangements are made for advanced and research work on the flow of water through orifices, over weirs, and on the efficiency of pumps and hydraulic motors.
N.B.-Students taking a Graduate Course will receive guidance in any advanced Mathematics required in connection with their work.

Railroad Engineering.
The lectures on this subject will embrace :-
(a) Location -Traffic, gradients, curvature, train resistance, general location of line by comparisons of routes.
(b) Construction.-Determination of structures required in construction with descriptions of types of same. Laying out of work; calculation of quantities of material used in construction. Specifications.
(c) Permanent Way.--Track-laying, ties (wooden and metal), ballast, steel rails and fastenings, semaphores, switches, yards, turnouts, frogs, etc., methods of signalling (telegraphic, staff, block, permissive block, etc.). Operation and equipment, with special reference to couplers and brakes; maintenance of way, renewals, surfacing, etc. Resum of railroad law, having special reference to the duties of an Engineer.

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These lectures, while giving the best practice of the present day, will only enter into detail sufficiently to illustrate the principles underlying the location, construction and maintenance of railroads.

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Municipal Engineering.
The lectures on this subject will embrace :-
(a) Vater Supply.-The quantity and quality of water; systems and sources of supply; rainfall and evaporation; storage as related to the supplying capacity of water-sheds; natural and artificial purification ; distribution, including the location of mains, hydrants, stopvalves, etc., combined or separate fire and domestic systems ; details of construction, including dams, reservoirs, pumps, etc., preliminary surveys, estimates of cost, statistics, etc.
(b) Sewerage of Cities and Towns.-The various systems for the removal of sewage; special methods in use for its treatment and ultim. ate disposal ; the proportioning and construction of main branch and intercepting sewers; manholes, flush-tanks, catch-basins, etc.; materials used in construction ; estimates of cost.
(c) Ruads, Streets, Pavements.-Methods and costs of construction and maintenance, drainage, etc., of country roads ; earth, macadam, telford, etc., comparisons of value to community by their effect on hauling capacities of teams. Pavements and sidewalks; objects of, foundations for, and materials employed (stone, wood, brick, asphalt, etc.) considered as to first cost, and cost and methods of renewal ; effect on health of inhabitants, relative tractive and wearing qualities, methods and cost of cleaning, etc., etc.

The lectures are designed to give the student a grasp of the principles involved rather than too great a detailed mass of facts, which vary year by year in minor points.

## 3. SURVEYING AND GEODESY.

Professor :-C. H. McLeod, Ma.E.
Lecturer :-J. G. G. Kerry, Ma.E.
This course is designed to give the student a theoretical and practical training in the methods of land and Geodetic Surveying, in the field work of engineering operations and in Practical Astronomy. The course is divided as follows :-

Second Year.-Chain and angular surveying; the construction, adjustment, use and limitations of the various instruments. Underground surveying. Topography, levelling, contour surveying.

Third Year.-Construction surveying, including the location of roads, simple and transition curves, setting out work and calculation
of quantities. Geodetic, trigonometric and barometric levelling. Descriptions for deeds. General land systems of the Dominion and Provinces. Topographic and photographic surveying. Hydrographic surveying. Introduction to Practical Astronomy. Graphical determination of spherical triangles, spherical projections, construction of maps.

In the field the students of the Second and Third Years are required to carry out the following :-(1) A chain survey. (2) A chain and compass survey. (3) A pacing survey. (4) A contour survey. (5) A plane table survey. (6) A survey and location of a line of road with determination of topography and contours and subsequent staking out for construction. (7) A hydrographic survey of a channel in the St. Lawrence River. (8) A Survey at night illustrating underground methods. (See special notice, page 145).

All students are required to keep complete field notes, and from them to prepare maps, sections and estimates of the work.

The large drawing rooms are furnished with fixed mountings for the various instruments, in order to permit of their use and investigation during the winter months.

Fourth Year.-Practical Astronomy :-the determination of time, latitude, longitude and azimuth. Geodesy :-figure of the earth; measurements of base lines and triangulation systems; adjustments and reductions of observations.

The field work of the 4 th year consists in the measurement of a base-line, in triangulations and precision levelling.

The practical work in Astronomy (for equipment of observatory sce XIII, Art. 7) comprises : (1) Comparisons of clocks and chronometers. (2) Determination of meridian by solar attachment. (3) Meridian, latitude and time by solar and stellar observations with the Engineer's transit. (4) Latitude and time by sextant. (5) Time by dstronomical transit. (6) Latitude by zenith telescope. (7) Latitude by transit in prime vertical.

Exercises in the Geodetic laboratory (for equipment see§ XIII, Art. 7) carried out in this year include the folowing:-(1) Measurement of magnifying power. (2) Determination of vernier errors. (3) Errors of graduation. (4) Measurement of eccentricity of circles. (5) Determination of errors of run of theodolite microscopes. (6) Investigation of the errors of a standard bar. (7) Graduating scales with the dividing engine, and comparison thereof on the comparator. (8) Investigation of the errors of circles on the circular comparator. (9) Determination of the constants of steel tapes. (io) Investigation of the graduation errors of steel tapes on the fifty-foot comparator. (iI) Investigation of the errors of aneroid barometers. (I2) Investi-
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gation of the errors of level tubes, and determination of their scale values. (I3) Measurement of the force of gravity with a reversible pendulum. (14) Measurements of magnetic dip, declination and horizontal force.

The equipment of the surveying department comprises the following, in addition to the apparatus of the Observatory and Geodetic Laboratory :-Six transit theodolites by various makers, solar attachment and mining telescopes. Five dumpy and two wye levels. Four sextants and artificial horizons. Two plane-tables. Three surveyors' compasses. Three prismatic compasses. Three current-meters. 300 and 500 ft . steel tapes arranged for base measurement. An 8 in . altazimuth. A Kern precision level, rods, etc. Two heliotropes, several barometers, pantograph, station pointers, hand levels, steel bands, chains, tapes, pedometers, rods, and other minor instruments.

Examinations for Land Surveyors:-Any graduate in the Faculty of Applied Science in the Department of Civil Engineering and Land Surveying may have his term of apprenticeship shortened to one year for the profession of Land Surveyor in Quebec or Ontario, or for the profession of Dominion Land Surveyor.

Text Books:-Gillespie's Surveying, Johnson's Theory and Practice of Surveying, Shortland's Nautical Surveying, Green's Practical and Spherical Astronomy, Nautical Almanac, Baker's Engineers' Surveying Instruments.

## Graduate Course.

Special arrangements are made for advanced and research work in Geodesy and Practical Astronomy. See § V.

## 4. DESCRIPTIVE GEOMETRY.

Lecturers :- $\left\{\begin{array}{l}\text { C. H. McLeod, Ma.E. }\end{array}\right.$
\{ H. F. Armitrong.
This course deals with the methods of representing objects on one plane, so that their true dimensions may be accurately scaled. It discusses the methods employed in the graphical solution of the various problems arising in Engineering design, and deals generally with the principles underlying all constructive drawing. The methods taught are in all cases illustrated by applications to practical problems. It is the aim of the work to develop the imagination in respect to the power of mentally picturing unseen objects ind,incidentally, precision in the use of the drawing instruments is attained.

First Year.-Geometrical drawing, orthographic projections, including penetrations, developments, sections, etc. Isometric projection.

Second Year - Problems on straight line and plane. Projections of plane and solid figures. Curved surfaces and tangent planes. Intersections of curved surfaces. Axometric projections. Shades and shadows. Mathematical perspective and the perspective of shades and shadows.

## 5. FREEHAND DRAWING, LETTERING, ETC. <br> Assistant Professor :-H. F. Armstrong.

In the Freehand Course, the object will be to train the hand and eye, so that students may readily make sketches from parts of machinery, etc., either as perspective drawings in light and shade or as preparatory dimensioned sketches from which to make scale drawings.

In the Lettering Course, plain block alphabets, round writing, and titles will be chiefly dealt with. In this course also, tinting, tracing, blue printing and simple map drawing will be included.

## 6. ELECTRICAL ENGINEERING.

Professor :-C. A. Carus.Wilson, M.Inst.E.E. (McDonald Professor of Electrical Engineerìng).

Lecturer :-L. Herdt, B. A. Sc., E.E.

The object of this course is to introduce the Student to the principles underlying the practice of Electrical Engineering. But little time is devoted to the consideration of strictly technical details, which the Student can far better study in the factory, where he is strongly recommended to go after his college course. The methods and the iustruments are, in almost every case, those that the Student will have eventually to use in practice. The object of the lectures is not to go over ground already covered by the text-books, but rather to direct the reading of the Students and to discuss problems arising out of the Laboratory work.

The work in the Electrical Engineering laboratories is not ommenced until the Third Year. By that time the Students will have gained a fair general acquaintance with Electricity in the Physical Laboratory. They will then begin a series of experiments on Electricity and Magnetism on a practical scale, using methods and mstruments in ordinary practical use, confining their attention more to the principles than to their application. This term's work is preparatory to that of the Fourth Year, when the Students will, in the Dynamo Room, study the practical application of these prin ciples.

Here they will make experiments on electrical machinery of all kinds: series, shunt, and compound dynamos; motors, motor-

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generators, alternators, etc. They will carry out tests of dy namos, transformers and motors under practical working conditions, not only on the apparatus in the dynamo room but also throughout the building, where there are several motors driving lathes, fans, etc., besides an electric elevator and an electric drill. In addition to these advantages they will have the opportunity of seeing a typical lighting station of twelve hundred lights at work, and may become familiar with the best practice and design of engines, dynamos, switchboard, and wiring.

The following is the general plan of work in this Department :-
Third Year.-Commencing in November. (a) 3 hours weekly, Electrical Laboratory. Practical use of the Instruments in common employ in Electrical Engineering, such as ammeters and voltmeters.
The Students will be taught how to handle currents, how to use the instruments, make connections, etc. (b) i hour lecture, 2 hours demonstration weekly, in the Magnetic Laboratory. Practical magnetic measurements. Commercial tests of iron. Magnetic principles, underlying dynamo design, illustrated by examples worked out nu merically in class from data obtained by experiment.

Fourth Year.-(c) 2 hours weekly, Electro-Dynamics, lectures.
(d) I hour demonstration weekly, in the Dynamo Room, methods and principles referred to in lecture illustrated by practical experiments before the whole class. (e) 3 hours weekly, same experiments as in (d) worked out by the students in groups of four or five in the Dynamo Room. (f) 3 hours weekly, Problem Paper, examples bearing on the lectures of the worked $\cdots 1$ by each student independently in class. (g) 3 hours weekly, Graphic Solution of practical problems in the Draughting Room. (h) 3 hours weekly, Dynamo Design, whole class in the Draughting Room. (j) i hour weekly, lecture, Descriptive Electrical Engineering, general description of apparatus from the engineering point of view, e.g., laying out of electric roads, design of power stations, etc. (k) i hour weekly during March, lecture, Advanced Electro-Dynamics. (l) I hour weekly during February, lecture, practical testing of Electrical Systems for faults and insulation. (m) 3 hours weekly, examining and sketching electrical apparatus in the City, lighting and power plants, elevators, etc.

The course of Lectures in Electro-Dynamics will treat of the following subjects :-

## Motors.

The Induction Factor: physical meaning of; general equation for in terms of given data ; variation of due to series winding and reactions; its influence on design.

Elementary Conditions of Displacement : direction of rotation ; general equations for speed and current ; relation between torque and induction factor ; power diagrams.

Experimental Proof of equation for torque; corrections for friction and hysteresis; practical methods of finding the induction factor.

Motors with Constant Induction Factor: curves of torque, speed and power ; parallel running of two.or moce motors ; effect of unequal induction factors; application to testing; Kapp's method; Hopkinson's method; graphic solutions; speed regulation.

Motors with Variable Induction Factor : curves of torque, speed and power ; parallel running ; graphic solutions; effect of unequal induction factors; effect of residual magnetisation.

Armature Reaction : theoretical considerations; experimental results ; the reactions of the slotted armature ; influence on design ; sparking.

Acceleration: analytical and graphical solutions; braking action.
Motor Control : different types of controllers discussed ; the seriesparaliel controller ; practical results, with figures showing the speed curves obtained on various electric roads; discussion of the advantages oi the different controllers under special circumstances, grades, etc.

Frictional Resistance : experimental determination of ; case of elevators. with worm and spur gearing; tests of standard street car equipments.

## Alternating Currents.

Self Induction. Helmholtz's Law. Solution of general current equation. Measurements of current and electromotive force and self-induction. Inductive Drop. Calculation of losses for given circuits. Graphic solutions. Power measurements. Theory of the watt-meter. Errors of watt-meters, Theory of the Transformer, hysteresis, leakage, drop. Efficiency. Methods of testing. Transformer design.

## Descriptive Eiectrical Engineering.

A special course of lectures in Descriptive Electrical Engineering is given by Mr. Herdt, to the Fourth Year Students.

The lectures on this subject will embrace :-
(a) Dynamo electric machines; construction of dynamos; coupling of dynamos. Alternators of different types ; construction of alternators. (b) Different systems for the distribution of electrical energy ; sectional area of conductors; aerial lines and underground conduits. (c) Central stations; their emplacement ; selection of machinery ; feeders and regulators; switchboards. (d) Electric railways; different systems; overhead construction.

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## Graduate Course.

A special course in Electrical Engineering will be arranged for the session 1897-98. This course will be open to graduates in Mechanical Engineering, or others who can show by examination or certificate that they are sufficiently qualified.

## 7. MECHANICAL ENGINEERING.

Professor :-J. T. Nicolson, B.Sc.., M.Can.Soc. C.E. (Workman Professor of Mechanical Engineering).

Assistant Professor :--R. J. Durley,B.Sc.,A.M.Inst. C.E.<br>Demonstrator :-.. .. .. .. .. .. .. ..<br>This course embraces four subjects of study, as follows :-

## I. Descriptive Mechanism and Kinematics of Machinery.

A course of lectures, illustrated by the lantern, will be given in the First Year, introducing the subject of mechanism in general to the Student. Beginning with elementary contrivances and common forms, the functions and principles of all kinds of ordinary mechanisms are explained ; and the course concludes with detailed descriptions of prime movers, machine tools, locomotives, and other machinery.

In the Second Year the science of Kinematics applied to machinery is taken up. Reuleaux's principles and classifications are followed, and illustrated by the fine and unique collection of models in the Museun. The synopsis of the course includes the following subjects: Definition of a machine. Lower Pairs. Kinematic chains and trains.

## II. Dynamics of Machinery.

While motion without regard to force was considered in the kinematic course, the action of external forces so as to compel rest or prevent change of motion, or so as to produce or to change motion in the links of mechanisms, is now considered in a series of lectures extending over two years.

The Third Year course embraces the following :-
Friction. Laws based on recent experiments, applied to journals and pivots. Railway brakes. Resistance to rolling. Friction in lection Blectric mechanisms treated graphically. Dynamics of belt and rope drives. Friction clutches. Elementary parts of dynamics of the steam engine,
curves of crank effort for single and multiple cranks. Fluctuation of energy and of speed. Fly-wheels. Indicators. Absorption and transmission dynamometers.

Fourth Year:-Balancing of double and single acting engines and of the locomotive. Rigid dynamics applied to the connecting rod, the oscillating engine, the governor, and gyrostatic action in machinery. The inter-relation between fly-wheel and governor. Dynamics of machine tools, of pumping and of forging machines. Graphic treatment of the dynamics of complicated machines. Knocking of steam engines.

## III. Machine Design.

In the above courses the parts of the machines considered have been supposed perfectly rigid ; their real state in this respect is considered in two courses of lectures extending over the Third and Fourth Years.

In the Third Year the principles of the strengths of materials are applied to the elements of machines ; e.g. :-bolts and nuts, keys and cotters, rivets and riveted joints; journals, pivots, axles, shafts and their couplings.

In the Fourth Year the first term is devoted to the more complicated parts of machines, as : bearings, pulleys, toothed wheels, pistons and their rods, connecting rods, cranks and their shafts, flywheels, valves, pipes and cylinders. The second term is taken up with the discussion of the theoretical principles involved in the special machine which is being designed in the drawing office. In successive years, a marine engine, a slottung machine, an overhead traveling crane, an experimental pump, an air pump and other machinery have Been taken up.

## IV. Mechanical Drawing.

This course extends over three years :-
Second Year.-Elementary principles of mechanical drawing. Simple machine details. Sketching of machinery. Dimensioning. Tracing and conventional colouring.

Third year.-Making of working drawings. Simple designing. Engine designing.

Fourth Year.-Practical machine design. The complete design of a machine, such as a steam engine, a pump, a crane, a turbine, a machine tool, or an air pump and condenser.

## Graduate Course.

A graduate course in Mechanical Engineering has now been arranged for, and will consist of part or all of the following work :

Experimental researches on steam engines and boilers, hot air and gas engines, compressed air plant for power transmission, refrigerating machines; on superheated steam, cylinder condensation, and feed heating ; and on the value of fuels.

Experiments on the relative value and properties of lubricants, on transmission and absorption dynamometers, on the efficiency of transmission machinery, and of machine tools.

Researches on the tempering and welding of various materials; and on the properties of alloys.
N.B.-Students taking a Graduate Course will receive guidance in any advanced Mathematics required in connection with their work.

## 8. MINING AND METALLURGICAL ENGINEERING.

Professor :-John Bonsall Porter, E.M., Ph.D. (McDonald Professor of Minins, and Metallurgy).

## Demonstrator:-

The undergraduate work of this department extends over the latter three Years of the course, and consists of lectures, classes in designing and drawing, metallurgical and mining machinery, in the specification of appliances and establishments; and in laboratory work in Ore-Dressing, Assaying, and Metallurgy.
I. A course of lectures is given to the Second Year students, in which both Mining and Metallurgy are treated in a general and descriptive way. These lectures are illustrated by means of lantern slides, photographs and drawings, and specimens from the department Museum, and are intended to give the student a thorough grounding in the subject, in order that he may be prepared to appreciate the mining or metallurgical establishments which he is expected to visit during his vacation, and to enter properly into the advanced and detailed work of the Third and Fourth Years.

In this Year, the student is expected to spend one afternoon per week in the drawing room, working on the mechanical drawing of machinery.
II. In the Third Year, a detailed course of lectures is given in Metallurgy, the headings being as below :-

Fuels.-The principles of combustion; calorific power ; calorific intensity, etc. Natural fuels; wood, peat, coal, oil, and natural gas. Artificial fuels : coke, compressed fuels, water-gas, producer-gas.

Ores.-The ores of the various metals.
Refractory Materials, etc.-Sand, clay, fire-brick, etc., etc.
Furnaces - The general types of furnaces and the characteristics of each.

Iron and Steel.-The blast-furnace and its accessory machinery; pig uron, cast iron, etc. The conversion of pig iron into wrought iron and steel, by means of puddling, blister, Bessemer, opeahearth, and other methods. The rolling mill; methods and machinery for making structural iron and steel rails, special shapes, heavy iorgings, armour, etc., etc. General design and location of iron and steel plants.

COPPER.-Sampling and mixing of ores ; calcination and roasting; mechanical calciners; smelting in reverberatory and shaft-furnaces ; matte fusions ; Bessemerizing, refining, etc. Wet methods ior copper ; electro-metallurgy ; copper rolling mill and manufacture.

Lead.-Sampling and mixing of ores ; calcination and roasting ; mechanical roasters; Smelting in shaft and reverberatory-furnaces; softening and refining.

Gold and Silver.-Extraction of precious metals from free milling ores; stamp mill amalgamation, amalgamating pan and barrels, patio process, etc. Extraction from refractory ores; roasting, chlorination, cyanide process, special methods, etc. Extraction from base metals ; desilverization of lead, Pattinson, Parkes, etc. Cupellation, parting, wet methods, electro-metalluigy, etc.

Other Metals.-Zinc, tin, mercury, nickel, cobalt, aluminium, etc. The elements of the Metallurgy of the less important metals are discussed briefly.

In addition to the lectures on Metallurgy, which are thoroughly illustrated, the Third Year students are required to spend a certain number of hours weekly in the drawing room, working on the designing of Metallurgical apparatus, and in the Metallurgical laboratory where actual work is carried on.
III. In the Fourth Year, a detailed course of lectures is given in Mining and Ore-Dressing, the headings being as below :-

Mining.-Prospecting and hydraulic mining ; diamond drills, etc. ; artesian wells. Excavation and quarrying ; rock drills, channelling machines, and coal cutters; explosive materials and blasting. Shaft sinking, tunneling. Getting out material by stoping, chambering, long-wall system, etc.; supporting excavation by timbering, masonry, etc., etc. Mine-pumping and ventilation; underground haulage and hoisting. Mine accidents and their prevention. General arrangement of mining plant ; administration, miners' stores and dwellings. Law relative to mining claims and patents.

Ore Dressing.-Treatment of ores underground and at the surface; hand picking, crushing, screening and sizing; jigs and other
concentrators; spitzkasten, spitzlu ten, vanners, buddles; tables, magnetic separators, etc. Ore and coal-washing machinery ; storage and delivery of ores and coal for transportation.
IV. Special courses in advanced work are offered in both Mining and Metallurgy, and these courses, owing to the unequalled equipment of the new laboratories, as detailed below, can be made exceedingly valuable both theoretically and practically.
V. Illustrations, Museums, Societies, Etc.-The department already owns a collection of one thousand photographs, eight hundred of which are kept in series in duplicate, and loaned to students for the session ; and arrangements are being made to furnish sets of these, at cost price, to such students as wish to retain them. This collection is rapidly being enlarged.

The Museum of the new building will contain suites of ores, fuels, and metallurgical materials, models of mines and furnaces, and specimens of finished products.

The McGill University Mining Society meets fortnightly to read and discuss papers by graduate and student members, and from time to time to hear lectures given by outsiders eminent in the profession.
VI. Excursions are made by the classes, from time to time, to such metallurgical works and mining establishments as are within reach, and arrangements are being made for a short summer session in one or another of the important mining centres, this work to occupy about one month of the vacation between the Third and Fourth Years.
VII. Laboratories -The unequalled laboratories of the University are of peculiar advantage to students in the Mining Course, and enable them to become acquainted, not only with the theory of their subject, but to personally investigate its methods on a large scale.

During the first three years of the course, the men do systematic work in the several workshops and laboratories. During the last part of the Third Year and the chief part of the Fourth, they spend a large proportion of their time in the working laboratories for Ore Dressing and Metallurgy. (See \& XIII.) In these latter, the general method is to assign to each student certain methods and pieces of apparatus which he must use and study out in detail, and upon which he must make a written report. In this work he is guided by the professor and demonstrator and assisted by the other students, each of whom he must in turr assist in his special work. In this way every student must acquire detailed knowledge of certain typical operations and a fair general experience of all of the other important methods in use.

## 9. CHEMISTRY AND ASSAYING.

Professor :-B. J. Harrington, M.A., Ph.D. (Greenshields Professor of Chemistry and Mineralogy). Lecturer :-Nevil Norton Evans M.A.Sc. Demonstrator :-Alexander Brodie, B.A.Sc.
This course includes lectures and laboratory work. In the First Year, Sttidents of all the Departments attend a course of lectures on the laws of Chemical Combination, Chemical Formulæ and Equations, the preparation and properties of the more important Elements and their Compounds, etc. They also devote one afternoon a week throughout the session to practical work in the Laboratory where they learn the construction and use of ordinary apparatus, perform a series of experiments designed to cultivate the powers of observation and deduction, and begin Qualitative Analysis.

In the Second and Third Years, Students in the Department of Practical Chemistry attend lectures on the Chemistry of the Metals or on Organic Chemistry, and receive instruction in Qualitative and Quantitative Analysis, including gravimetric and volumetric methods and the application of electrolytic methods to the estimation of copper, nickel, etc. Blowpipe Analysis and Determinative Mineralogy also constitute part of the work of the Third Year.

In the Fourth Year, special attention is devoted to such subjects as Mineral Analysis and Assaying, and the Analysis of Iron and Steel ; but considerable latitude is allowed to Students in the choice of subjects, and Organic work may be taken up if desired.

Students of the Mining Course take Qualitative and Quantitative Analysis during the Second and Third Years, and devote considerable attention in the Fourth Year to Mineral Analysis and Assaying of various ores, fuels, etc. They also attend the class in Blowpipe Analysis and Determinative Mineralogy in the Third Year.

The Chemical Laboratories (see § XIII) are open daily (Saturdays excepted) from 9 a.m. to 5 p.m.

## го. THERMODYNAMICS.

Lecturer :-J. T. Nicolson, B.Sc., M. Can. Soc. C.E.
Demonstrator :-
Fundamental laws and equ.ations of thermodynamics. Application to perfect gases and to steam saturated and superheated. Efficiency of perfect heat engines. Efficiency of actual air, gas, petroleum, and steam engines.

A study of the steam engine, including wire-drawing, cylinder condensation and jacketing, and the most efficient and most econo-
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mical point of cut-off. Sizes and proportions of cylinders in single, double and triple expansion engines to develop a given power. Expected indicator diagrams. Sizes and proportions of the principal types of steam generators. Comparison of practical suitability of steam and caloric engines. Theory of engine and boiler testing.
Text-Book.-Ewing's Steam Engine.
Peabody's Tables of Properties Steam.

## ii. GEOLOGY AND MINERALOGY.

Professor :- $\} \begin{aligned} & \text { B. J. Harank D. Adgtons, Ph.D. } \\ & \text { Frat. }\end{aligned}$
Second Year,-A preliminary course in Zoology, with special reference to Fossil Animals.

Third lear,-Mineralogy (Ordinary and Honour), Petrography, Physical and Chronological Geology and Palaeontology, Geology of Canada, Methods of Geological Exploration.

Fourth Year.-Special studies in Ore Deposits, Mineralogy and Petrography ; Advanced Course in General Geology and Palæontology ; Geology of Canada; Practical Geology and Field-work.

For further details see Announcement of the Faculty of Arts.
Note.-Students of the Mining and Chemistry courses take the Honour Mineralogy of the Third Year in Arts. Mining Students take the whole Honour Course of the Fourth Year. Chemistry Students take, in addition to the ordinary Course in Geology, the Honour Mineralogy of the Fourth Year.

The Petrographical Laboratory, (See § XIII) is open to Fourth Year Mining Students during the second term.
12. ZOOLOGY.

Profesenr:-To be appointer.
This Course includes Elementary Physiology, Embryology, Morphology and Classification of Animals, with a general account of their habits, distribution and geological history. The lectures are supplemented by weekly demonstrations in the Redpath Museum.
13. BOTANY.

Professor :-D. P. Penhallow, M.A.Sc.
i. General Morphology. - This course is designed to give a through general knowledge of the principles of General Morphology and Classification. It comprises :
(a) Determination of species from both dry and fresh materials; type studies of Sphermaphytes, Pteridophytes, Bryophytes, and Thallophytes, with reference to their life histories. Gray's Structural Botany, Gray's Manual, Penhallow's Outlines of Classification, and Botanical Collector's Guide. First Term, two hours a week.
(b) General Morphology and Classification; elements of Histology and Physiology ; Biological relations of plants. Second term, two hours a week.
2. Advanced Anatomy. - This course, open to students who have taken Botany 1, is designed to give an extended knowledge of vegetable anatomy. It comprises :-
(a) Optics and construction of the microscope; determination of amplifications ; micrometry ; drawings ; section cutting ; preparation of microscopic objects ; micro-chemical reactions; study of cell contents and tissues, comparative studies of type forms of angiosperms and gymnosperms.
Four hours a week.
*(b) A contin ation of the course in the Third Year. Critical studies of the structure and development of the Pteridophyta, Bryophyta, Thallophyta and Protophyta.
Four bours a neek.
The fee for the Session in each of the above courses is $\$ 10$. Students are required to supply their own slides and cover glasses.

* Students satisfactorily completing this course will be eligible to the occupation of an investigator's table held by the University at the Wood's Holl Biolcgical Laboratory.


## 14. EXPERIMENTAL PHYSICS.

Professors:- $\left\{\begin{array}{c}\text { John Cox, M.A. (McDonald Professor of Physics). } \\ \begin{array}{c}\text { Hugh I. CALlendar, F.R.S. (McDonald } \\ \text { Physics. }\end{array}\end{array}\right.$
The instruction includes a fully illustrated course of Experimental Lectures on the general Principles of Physics (embracing, in the Sec ond Year-The Laws of Energy-Heat, Light and Sound; in the Third Year-Electricity and Magnetism), accompanied by courses of practical work in the Laboratory in which the Students will perform for themselves experiments, chiefly quantitative, illustrating the subjects treated in the lectures. Opportunity will be given to acquire experience with all the principal instruments used in exact physical and practical measurements. Students of Electrical Engineering will continue their work in the Laboratory in the Fourth Year, when they will undertake, under the guidance of the Professors,
advanced technical

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advanced measurements and special investigations bearing on their technical studies.

Fourth Year Electrical Students. - Students of Electrical Engineering will continue their work in the Physical Laboratory in the Fourth Year. The following is a brief outline of the Course :

Magnet.c elements and measurements. Use of Variometers. Testing magnetic qualities of iron.

Theory and practice of absolute electrical measurements.
Comparison and use of electrical standards, of resistance, E.M.F., self-induction, and capacity.

Principles of construction of electrical instruments.
Testing and calibration of ammeters, voltmeters, and wattmeters.
Insulation and capacity tests. Electrometers and Ballistic methods.
Construction and treatment of storage cells. Testing for capacity and rate of discharge.

Electric light photometry.
An additional course on telegraph and telephone work is under cons feration.

## Graduate Courses and Research Work.

In the course of the Past year, the following are the principal researches which have been carried on in the Laboratory.

On the velocity of X Rays, on the action of R Rays on Selenium, and various other experiments on the nature and properties of X Rays, by Professors Cox and Callendar.

On the temperature variation of the Electromotive Force of the Clark Standard Cell, by Professor Callendar and Howard, T. Barnes.

On the Thermal Transpiration of Gases, by Professor Callendar.
On the Specific Heat of Mercury, by Prof. Callendar and H. T. Barnes.

On the Cast-Iron, Wrought-Iron Thermocouple, by H.M. Tory.
Comparison of the Chatelier and Callendar Pyrometers, by H . M. Tory.

On the Temperature-Variation of the Hysteresis, Coercive Force, and Residual Magnetisation of Iron, by F. H. Pitcher.

On the conductivity of Cast-Iron, Wrought-Iron, and Copper, and on the Thomson and Pelletier effects in those metals, by R. O. King.

On Measurements of the Temperature of the River in winter, by means of a Differential Platinum Thermometer, with reference to the conditions of formation of Frazil and Anchor Ice, by H. T. Barnes.

On a new form of Hysteresis Tester, by L. W. Gill.
Prof. Callendar has also been engaged in conjunction with Prof. Nicolson, in the Thermodynamic Laboratory of the McDonald En-
gineering Building, in a series of experiments on the Law ot Condensation of Steam and other questions relating to the theory of the Steam-Engine; most of the results of which are now in course of publication by the Institution of Civil Engineers, of London, England. The observations on Soil Temperatures with Electrical Thermometers, have been continued, and the results published by Professors Callendar and McLeod in the Transactions of the Royal Society of Canada.

The following are some of the sections in which special provisions have been made for advanced physical work :-

Heat.-Thermometry. Comparison and verification of delicate thermometers. Air thermometry. Measurement of high temperatures. Electrical resistance thermometers and pyrometers. Thermoelectric pyrometers. Absolute expansion of mercury.

Calorimetry. Mechanical Equivalent of Heat. Variation of specific heat with temperature. Latent heat of fusion and vaporisation. Heat of solution and combustion. Electrical methods.

Radiation and conduction of heat with special methods and apparatus. Dynamical theory of gases.

Viscosity. Surface Tension. Variation of properties with temperature.

Light.-Photometric standards. Spectrophotometry. Theory of colour vision. Spectroscopy and spectrum photography. Compound prism spectrometers. Six inch and $21 / 2$ inch Rowland Gratings. Study of spectra of gases. Fluorescence and anomalous dispersion. Polarimetry. Landolt and other polar-meters. Form of wave surface.

Sound.-Velocity in gases and various media. Absolute determinations of period. Harmonic analysis of sounds. Effects of resonance and interference.

Electricity and Magnetisn.-Magnetic properties. Influence of stress and torsion. Influence of temperature. Effects of hysteresis. Magneto-optics. Other effects of Magnetisation. Diamagnetism.

Electrical standards and absolute measurements. Calibration of electrical instruments.

Insulation and capacity testing. Electrometer and Ballastic methods. Temperature variation of resistance and E.M.F. Thermoelectric effects. Electrolysis. Chemistry of primary and secondary batteries. Resistance of Electrolytes, Polarisation.

Electric discharge in gases and high vacua. Dielectric strength. Behaviour of insulators under electric stress. Specific inductive capacity. Electric oscillations, Electru-maguetic optics. Alternating currents of high frequency and voltage,
N.B.-Students taking a Graduate Course will receive guidance in any advanced Mathematics required in connection with their work.

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15. MATHEMATICS AND MATHEMATICAL PHYSICS.

Professor :-G. H. Chandler, M.A. Lecturer :-R. S. Lea, Ma.E.

The work in this department is conducted from the outset with special reference to the needs of Students of Applied Science. Much time is given to practice in the use of Mathematical Tables, particular attention being paid to the solution of triangles, the tracing of curves, graphical representation of functions, reduction of observations, etc. Areas, volumes, masses, centres of gravity, moments of inertia, etc., are determined both by calculation and by observation or experiment, and each method is made to supplement or illustrate the other. In this connection, use will be made, in actual laboratory practice, of a large amount of apparatus, such as balances, Atwood's Machines, inclined planes, chronographs, rotation apparatus of various kinds, etc. The different methods of approximation, the reduction of results of experiments and observations by least squares, etc., will also receive due attention.

The lectures will embrace the following subjects :-
First Year - Euclid, to the end of Book VI., with exercises on Loci, Transversals, etc., Algebra, including the Binomial Theorem. Elements of Solid Geometry and of Geometrical Conic Sections. Plane and Spherical Trigonometry. Elementary Kinematics and Dynamics.

Second Year.-Analytic Geometry. Differential and Integral Calculus. Dynamics of Solids and Fluids.

Third Year.-Continuation of Analytic Geometry, Calculus and Dynamics.

Classes may also be held for advanced (optional) work in these or other subjects.
N.B.-Students taking Graduate Courses will receive guidance in any advanced Mathematics required in connection with their work.

Text-Books (Partial list).-Todhunter's or Mackay's Euclid, Hall \& Knight's Elementary Algebra, Wilson's Solid Geometry and Conic Sections, Wentworth's Analytic Geometry, Chandler's Calculus, Blakie's Dynamics, Wright's Mechanics, Bottomley's Mathematical Tables. Chambers' Mathematical Tables.

## 16. ENGLISH LANGUAGE AND LITERATURE.

Professor :-C. E. Moysf, B.A. (Molson Professor of English Language and Literature.
Lecturer :-C. W. Colby, Ph.D.
First Year.-A special course on English Composition.

## 17. METEOROLOGY.

Instruction in Meteorological Observations will be given in the Observatory at hours to suit the convenience of the Senior Students.

Certificates will be granted to those Students who pass a satisfactory examination on the construction and use of Meteorological Instruments and on the general facts of Meteorology.

## § XIV. LABORATORIES.

In the Laboratories the Student will be instructed in the art of conducting experiments, a sound knowledge of which is daily becoming of increasing importance in professional work.
i. Assaying Laboratory. See Mining and Metallurgical Laboratories.
2. Astronomical Observatory. See Geodetic LaboRATORY.
3. Cement Laboratory. See Testing Laboratories.
4. Chemical Laboratories.-The present Chemical Laboratories are three in number,-one for Students of the First Year ; one for Students of the Second and Third Years, in which it has been found necessary to carry on both qualitative and quantitative work; and one intended for Students of the Fourth Year, and for specia! Students who may wish to carry on original investigations. There is also a room in the basement which is fitted up for fire-assaying.

The Laboratories are supplied with five balances by Becker \& Sons, one Bunge and an assay balance by Troemner. There are also a Laurent polariscope, a spectroscope by Dubosque, gas combustion and melting furnaces, apparatus for electrolytic work, etc., etc. Distilled water is obtained by means of a special boiler placed in the basement, which also supplies the steam for drying-ovens, steam-baths and dryingchamber in the upper Laboratories.

The Chemistry and Mining Building which Mr. W. C. McDonald, with his wonted liberality, is erecting for the University, will, it is hoped, be ready for occupation some time during the Session of 1897-98. The building, in addition to three large general laboratories accommodating about 200
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students at a time, will have a number of smaller laboratories and rooms for special purposes and for research work in inorganic and organic chemistry. Among the special rooms may be mentioned those for phys:cal chemistry, iron and stecl analysis, water analysis, gas analysis and photography. Provision will also be made for practical work in mineralogy and petrography, subjects which have come to be essentially departments of chemistry and physics, and which are at the same time intimately related to mining and metallurgy.

The principal lecture-room, extending through two floors, is entered at the ground level, but each of the higher floors will also have its class-room. On the second there will be a library, and also a museum for chemical products. The rooms for allied purposes will, as far as possible, be grouped tcgether on the same floor, and there will be a large elevator running from the basement to the top storey. The building will be practically fire-proof, and will be lighted throughout by electricity.
5. Dynamics, Laboratory of. See Mathematics and Dynamics, Laboratory of.
6. Electrical Laboratories.-These consist of :-
(1) The Electrical Laboratory proper, where the standard instruments are kept and experiments made in the electrical course. The instruments comprise amongst others, two of Lord Kelvin's electric balances, a Thomson galvanometer, four d'Arsonval galvanometers, two Siemens dynamometers, two Kelvin electrostatic voltmeters, a complete set of Weston ammeters and voltmeters, besides resistance coils, etc.

Current is supplied to all parts of the room from one of the lighting dynamos direct and from the accumulator room.

During the past session a new standard speed indicator has been set up in the Electrical Laboratory, for the purpose of measuring the frequency of alternating currents by comparison with a standard tuning fork. Several measurements have already been made with this instrument on the self-induction of coils of different sizes and shapes.
(2) The Magnetic Laboratory.-Here are set up a ballistic
galvancmeter, Ewing's curve tracer, and a variety of apparatus made in the College for magnetic tests of various kinds.
(3) The Dynamo Room.-The apparatus here consists of a 25 KW Edison dynamo, two 12 KW Edison dynamos, a 12 FW Mordey alternator made specially for this laboratory the coils on the armature can be moved round through any angle, and two or three currents of any phase difference obtained), a 7 KW Victoria dynamo, a 7 KW Fort Wayne dyniamo, a 6 KW Thomson-Houston arc-light dynamo, a $\mathrm{I}_{5}$ KW Thomson-Houston incandescent dynamo, and a 5 KW Brush arc-light dynamo. All these are driven off magnetic clutch pulleys by an 88 horse power MacIntosh \& Seymour engine. There are also here several different transformers, motors, arc lamps, etc., and a 3 KW motor generator.
(4) The Lighting Station.-This comprises a 30 KW Edi-son-Hopkinson dynamo, and a 30 KW Siemens dynamo, each driven by a Willans high speed engine. The switchboard is arranged so that the building-containing twelve hundred lights-can be lighted by the two dynamos in series, or, if the load is light, by one running on two-wire system or by accumulators. The whole is in every respect typical of the best English and American practice.
(5) The Accumulator Room.-Containing Crompton-Howell storage cells of a united capacity of eight hundred ampere hours.

During the past year, the advanced students in the Electrical Engineering Course have carried out an extensive series of experiments on different subjects of inter cist.

The electric elevator in the building formed the subject of an enquiry into the regulating and running of electric elevators generally, and much useful information was obtained as to the efficiency of worm gearing.

Tests of efficiency were made on transformers submitted by the makers, by a new method.

The photometer has been used for testing the candle-power and efficiency of a large number of incandescent lamps of different types.

Several samples of iron have been sent in for magnetic experiments, and have served a useful purpose in the students' work.

The efficiency of the magnetic clutches used in the dynamo room, which were designed at the College, was determined by a series of
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tests ; these clutches have been running for three years, and have proved perfectly satisfactory.

An extended series of experiments has been made on armature reaction on some of the dynamos in the laboratory; these are now being completed, and will, it is hoped, give valuable results.

Arrangements are now being made for establishing a street railway testing department ; a standard street railway motor and other apparatus have been kindly lent by the Canadian General Electric Company for this purpose.
7. Mathematics and Dynamics, Laboratory of.-The equipment of this Laboratory includes instruments for the measurement of distance (scales, micrometers, cathetometer), of area (planimeters), of volume flasks, graduated vessels, etc.), of time (clocks, chronographs), of mass (beam and spring balances) ; it is also provided with a mechanical integrator, specific gravity balances, Atwood and Morin machines for experiments on the Laws of Motion, inclined planes, a variety of rotation apparatus (gyroscope, Maxwell's dynamical top, torsion balance, pendulums, etc.), air-pumps, thermometers, barometers, etc.

The Mathematical Laboratory is used chiefly in connection with the course in Dynamics. Lectures are given on the fundamental and derived units of the Science, as well as on the Laws of Motion, and deductions from the same. When the students have in this way been made acquainted with some of the ideas of the subject, they are admitted to the laboratory, where experiments of a progressive character are assigned to them. These experiments are in all cases quantitative, and embrace the measurement of mass by means of accurate physical balances, of intervals of time by clock and chronograph, and of distance by means of scales, screw micrometers, etc. They then proceed to the measurements of areas, volumes, velocities, accelerations, forces, specific gravities, friction, and also to pendulum experiments, etc. The equipment of the laboratory for this work is very complete, embracing as it ines the ordinary instruments for the purpose to be found in most physical laboratories, + gether with a variety of apparatus specially constructed for this laboratory. Particular attention is given in the lectures to the principles of observing, in general, the sources of error, etc. ; the whole course having reference to the subsequent work of the student in the Physical and Engineering Laboratories.
8. Mechanical Laboratory.--In this Laboratory experiments will be carried out on the efficiency of belts, shafting, and machine tools. Governors of all types will be tested with the chronograph. Lubricants by journal friction-testing machine. Sliding and rolling friction and the stiffness of ropes will also form subjects for experiment.

Much valuable apparatus has been added to this laboratory since the opening of the Buildings, all of which has been made in the mechanical workshops, and mainly by students. The Thurston oil tester and the Bunte's viscosimeter, which formed the original equipment, have been supplemented by a hydraulic dynamometer for testing the efficiency of machines, a rotary transmission dynamometer on a new principle, with recording attachment, a pneumatic gauge for measuring delicate pressures down to the 3000th of a lb. per square inch, two other draft gauges, a beit transmission dynamometer and a belt-testing apparatus.

With these instruments, and with the machines and other appliances in the workshops, experiments are carried on during the winter session, and students sometimes carry out researches during the summer months.

Many visits have also been paid to engineering works and manufactories of importance.

## 9. Metallurgical Laboratory See Mining and

 Metallurgical Labjratories.10. Milling Room. See Mining and Metallurgical Laboratories.
i i. Geodetic Laboratory.-The equipment of this la boratory consists of :-
(1) Linear instruments.
(a) A Rogers comparator and standard bar for investigating standards of length.
(b) A fifty-foot standard and comparator for standardizing steel bands, chains, tapes, rods, etc.
(c) A Whitworth end-measuring machine and set of standards.
(d) A Munro-Rogers linear dividing engine.
(2) Circular instruments.
(a) A Rogers circular comparator and dividing engine.
(b) Two level triers.
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(3) Time.
(a) An astronomical clock and clock circuit in connection with the observatory clocks.
(b) Chronometers running on mean and sidereal time.
(c) Chronograph.
(4) Gravity .-A portable Bessei's reversible pendulum apparatus, with special pendulum clock and telescopic apparatus for observing coincidences of beats.
(5) A water gauge apparatus for testing aneroid barometers.
(6) Magnetic instruments :
(a) A Kew dip circle.
(b) A Kew filar magnetometer.

The laboratory is constructed with double walls and enclosed air spaces, and has a special heating apparatus, so that the temperature within may be brought to, and held at, any desired degree.

The ordinary course of instruction in this laboratory is described in XII. Art. 3.

Astronomical Observatory.-The observatory equipment for the purpose of instruction in practical astronomy consists of :-
I. A Bamberg prismatic transit with zenith attachment.
2. Two astronomical transits for meridian observations. Collimating telescopes.
3. A Troughton \& Simms zenith telescope.
4. An astronomical transit in the prime vertical.
5. Sidereal and mean time clocks and chronometers.
6. Chronograph and electrical circuits by which observations anc clock comparisons within or without the observatory may be made.
12. Hydraulic Laboratory-Here the Student will study practically the flow of water through orifices of various forms and sizes, through submerged openings, over weirs, through pipes, mouth-pieces, etc.

The equipment of this laboratory includes :-
I. A large Experimental Tank, 30 ft . in height and 25 sq . ft ., in sectional area. With this tank experiments are conducted on the flow of water through orifices, either free or submerged. By a simple arrangement the orifices can be rapid-
ly interchanged without lowering the head, and with the loss of only about one pint of water. The indicating and measuring arrangements connected with the tank are exceedingly delicate and accurate, all times being automatically recorded by an Electric Chronograph ; and valuable results have already been obtained. By means of a special connection with the city water-supply, the available head of water may be increased up to 28 oft .
2. An Impact Machine, which renders it possible to measure the force with which water flowing through an orifice, nozzle, or pipe, strikes any given surface, and also the impulsive effect of the water entering the buckets of hydraulic motors.
3. A Rife's Hydraulic Ram.
4. A Jet Measurer specially designed for investigating the dimensions of the jet produced in the phenomena known as "the inversion of the vein." With this apparatus it is possible to determine, within .oor inch, the dimensions of a jet in any plane and at any point of the path.
5. Numerous orifices, nozzles and mouth-pieces.
6. A specially designed stand-pipe, with all the necessary connections for pipes of various sizes for investigations on frictional resistance. The pressures are measured by recording gauges, etc.
7. A flume about 35 feet in length, by 5 ft . in width by 3 ft. 6 ins. in depth.
8. Weirs up to 5 ft . in width, and with a depth of water over the sill varying from nil to 8 inches. A weir-depthing machine, with three adjustable heads, gives the surface depth of the stream at any three points in a transverse section. The velocity of the stream is also determined by means of a double Pitôt tube.
9. Numerous hydraulic pressure-gauges.
10. A mercury column 60 feet in height.
ir. Gauge-testing apparatus.
12. Various rotary, and piston meters, and a Venturi meter.
13. Apparatus for illustrating vortex motion.
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14. Apparatus for illustrating vortex ring motion, and for determining the critical velocity of water flowing through pipes.
15. Five specially built gauging tanks with suitable indicators, and having a capacity of 800 cubic feet. Also other portable tanks.
16. Transmission and absorption dynamometers.
17. An experimental centrifugal pump, which can be tested with varying heights of suction and discharge.
18. An inward-flow turbine, a new American turbine, a Pelton, and other motors and turbines.
19. Standard gallon and litre measures with glass strikes. This Laboratory is also provided with a set of pumps, specially designed for experimental work and research. They are adapted to work under all pressures up to 120 lbs . per sq. in. and at all speeds up to the highest found practicable. The set is composed of three vertical single acting plunger pumps of 7 in . diam., 18 in. stroke, driven by one shaft. They are to have two interchangeable valve chests, and it is arranged that both the valves and their seats may be removed and replaced by others. The pumps are also provided with a double set of continuous triple recording indicators designed in the laboratory and having electrical connections. With these, an accurate record of the history of the suction and discharge valves may be obtained at any given time, all fluctuations of time, speed, pressure, etc., being automatically recorded.

In the Hydraulic Laboratory, investigations are being carried out on the flow of water through orifices of different sizes and forms, on the effect of viscosity upon the flow, and for the purpose of determining the co-efficients of discharge through conical nozzles.

Similar experiments and also experimente on the flow of water over weirs have been directly conducted by the students, who are thus able to obtain experience in the scientific treatment of hydraulic problems, which will certainly be of the utmost value to them in their future career.

During this Session, in addition to the ordinary class exercises, extensive tests have been made on the stretching and bursting strength of hose.
i3. Mining and Metallurgical Laboratories-The McDonald Chemistry and Mining Building, now being erected, will be under roof at an early date, and the Mining and Metallurgical Laboratories, to be situated in the lower part of the structure, will, it is expected, be fully equipped for the beginning of the session of 1897-98.

These laboratories, with the lecture rooms and library, the professor's office, and rooms for apparatus, supplies and fuel, are very conveniently arranged individually and with regard to one another, and occupy the lower part of tio main building and the whole of both wings. The total floor space covered is approximately 12,500 square feet, divided as follows :-

Mining and Ore-Dressing Laboratory, or Milling Room, 3,500 square ieet; Metallurgical Laboratory, or Furnace Room, 2,500 square feet; Assay Laboratory, 2,000 square feet; Wet Assaying Rooms, 500 square feet ; Technical Lecture Room, 600 square feet; Library and Drawing Room, 500 square feet ; Offices, Stores and so forth, 3,000 square feet.

The two rooms first mentioned are of great size, and will be the chief laboratories of the department. In these it will be possible to take any ores of gold, silver, copper, or lead, in the condition in which they come from the mines, and to treat them from beginning to end precisely as they are treated in the ore-dressing works and smelting plants of the West. They therefore may be considered a small commercial plant for the actual production of metals. They will differ from commercial plantr, however, in that an ordinary oredressing establishment or sme'ter is designed to treat the ores of only one district and sometimes of only one part of a district. The University. Laboratories must of course be adapted to all ores now found or likely to be found in the Dominion, and will therefore contain a greater number of pieces of apparatus than are to be found in any one commercial establishment, although probably no case will come up when all of these machines will be used for any one test.

The Milling Room will be equipped with a complete working plant, capable of treating about one carload or 10 tons of ore per day, the chief pieces of apparatus being:-Rock Crushers of three kinds (" Blake," "Dodge" and "Gates"), to break the large pieces of ore to small size. Stamp mills of 300,600 , and 900 lbs ., respectively, for the fine crushing and amalgamation of gold ores: Huntington mill, for crushing and amalgamating. Rolls, both coarse and fine, to reduce ores to powder when necessary. Trommels and

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sieves, for sizing the crushed ores. Hartz and Collom jigs for concentrating minerals by gravity. Revolving, bumping, and belt tables, for separating valuable minerals contained in fine sands and crushed rock. Plates and pans, for amalgamating gold and silver ores. Spitzkasten, spitzlutten, magnetic separators, and various other special pieces of ore-dressing app atatus.

The machinery above mentioned is not in miniature; it is of full size, such as the graduates will afterwards find in use in commercial establishments. It is, however, to be so arranged that each piece can be worked by itself, taken apart and cleaned up; and such of the larger pieces as cannot be used for small quantities of material are to be duplicated in miniature. The laboratory, while thus adapted to illustrate continuous work on a comparatively large scale, is even more perfectly designed for experimental work on as small a scale as is compatible with accuracy of result.

The Metallurgical Laboratory is to be fitted with a Waterjacket blast-furnace, 24 ins. inside diameter, for smelting lead and copper, and with the necessary blast apparatus; also with reverberating furnaces, a Bruckner cylinder furnace, a reverberatory roasting-furnace, an English cupellation-furnace, and several crucible furnaces.

It is also to have a complete set of apparatus for the chlorination and leaching of silver and other ores, and a cyanide extraction-plant for gold ores, these being the new methods which are revolutionizing the gold metallugy of the world and producing such extraordinary yields in the mines of South Africa and Australia.

These two laboratories are very large and well lighted, and are each 20 ft . high in the clear. Close to them are the rooms for storage of ores, fuel, and so forth, from which lines of floor tracks lead to the elevator and connect with the crushers and furnaces. There is also to be an overhead system of tramways, with travelling hoists and buckets. Material can therefore be moved from one point to another with the greatest ease, and pieces of apparatus can be readily taken apart, and if necessary, moved by the same means.

It is not the purpose of the University to use these laboratories for commercial work, although they are quite large enough for such service. They are to be used solely for educational work and for investigation ; but, owing to their thoroughly practical nature, instruction given in them will be of immensely greater value to the students than could be the case if the work were done in miniature ; and, at the same time, the investigations made by means of such apparatus will be of great use to the mining and metallurgical community, as they can be carried out in all respects under working conditions, and will, therefore, be free from the disturbing causes likely to interfere with attempts to reproduce commercial processes on a small scale.

The Assaying Laboratory is to be equipped with a complete set of muffle-and crucible furnaces, some of each being arranged for gas and oil and others for coke or charcoal, as in some parts of the West one of these fuels must be used, while in other parts another is found more desirable. Connected with this laboratory are rooms with pulp-and assay-balances, and other equipped for wet analysis of ores.
14. Modelling Laboratory .-A Laboratory for modelling in clay, as part of the work in the Architectural Department, is arranged in connection with the Cement-testing Laboratory. Third Year Architectural Students follow a regular course in Modelling under the instruction of the Assistant Professor of Freehand Drawing. The Laboratory is fully equipped for the work, including the making of plaster casts from the executed clay models.
15. Petrographical Laboratory. - The Petrographical Laboratory, containing the chief rock collections of the University, is situated in the east wing of the Arts building, but will be transferred to the new Chemistry and Mining building as soon as this building is completed. It is arranged for the use of Students in the Mining Course as well as for those desiring to take advanced work, and is provided with a number of petrographical microscopes by Seibert and Crouch, as well as with models, sets of thin sections, electro-magnets, heavy solutions, etc., for petrographical work.

For advanced work and petrographical investigation Dr. Adams' extensive private collection of rocks and thin sections is available for purposes of study and comparison.
16. Physical Laboratory.-The McDonald Physical Laboratory contains five storeys, each of 8,000 square feet area. Besides a lecture theatre and its apparatus rooms, the building includes an elementary laboratory nearly 60 feet square ; large special laboratories arranged for higher work by advanced students in Heat and Electricity, a range of rooms for optical work and photography ; separate rooms for private thesis work by Students; and two large laboratories arranged for research, provided with solid piers and the usual standard instruments. There are also a lecture room, with apparatus
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room attached, for Mathematical Physics, a special physical library, and convenient workshops. The equipment is on a corresponding scale, and comprises : (1) apparatus for illustrating lectures ; (2) simple forms of the principal instruments for use by the students in practical work ; (3) the most recent types of all the important instruments for exact measurement, to be used in connection with special work and research.

The following extract from the report for the year 1894-95 of the Plysics Building Committee will indicate the general nature of the equipment.

Of the advanced practical work, the greater part hitherto, owing to the arrangement of the Electrical Engineering course, has been confined to Electricity and Magnetism. It may be of some interest, therefore, to give a brief abstract of the work of the last year in this direction, together with a description of the principal electrical standards and instruments of precision in the McDonald collection.

Resistance Standards.-There are thirty standard resistance coils of various patterns, including the B.A., the Board of Trade and the German, with a few others, ranging in value from $\mathrm{I}, 000$ ohms to one ten-thousandth, and adapted for different purposes. These have been tested and compared, and their values are found to agree as closely as could be expected with the Cambridge certificates, and those of the Reichsanstalt and the makers. The temperature co-efficients of a few have also been determined. The comparisons have been made chiefly with Nalder's pattern of the Carey-Foster Bridge.

There is also a duplicate of the Fleming Bridge used at Cambridge, presented by the Duke of Devonshire.

Resistance Boxes.-The collection of resistance boxes includes almost all the best types. There is a Thomson-Varley slide-box by Nalder, which has proved extremely useful and accurate. Among the other boxes may be mentioned : two megohm boxes and four 100,000 ohm boxes of different patterns; a four dial and a six dial P.O. box ; and a bar-dial box of Professor Anthony's pattern ; also a compensated resistance box with mercury contacts, reading from 0 to 50 ohms continuously by the Carey-Foster method ; this is extremely useful for the accurate determination of resistances which cannot be made up of any simple combination of standards, and has been accurately calibrated throughout.

For the comparison and determination of small resistances, there is a Kelvin conductivity bridge and a Lorenz apparatus, with the improvements made by Prof. V. Jones, which is now being completed under his supervision.

Current Standards -There is a Kelvin composite balance, which can also be used as a voltmeter, and wattmeter, and two Siemens dynamometers. The constants of these have been determined by the voltametric method, and found to be accurate to one-half of one per cent. They have been used for calibrating common types of alternate current instruments. There is also a set of 4 large storage cells with convenient commutators and resistances for furnishing large steady currents for the testing of ammeters and low resistances, and for other purposes. This equipment is similar to that in use at the Board of Trade in England and in the laboratories of some leading instrument makers.

As an absolute current standard there is a duplicate of the Weber electro-dynamometer made by Latimer Clark for the Committee of the British Association, the coils of which were wound by Clerk Maxwell, and used by Lord Rayleigh in his standard experiments. The coils of this instrument have been removed, and measured, and it is proposed to use it for an absolute determination of the E. M. F. of a Clark cell.

Insulation and Capacity Tests.-For these and other tests there is a suitable collection of delicate reflecting galvanometers of the astatic, ballistic, differential and D'Arsonval types. The most delicate of these has a resistance of 110,000 ohms, and a figure of merit of upwards of 60,000 megohms with a 20 second swing.

There are eight quadrant electrometers of different types, which have been set up and used for various insulation and other tests. We have also one Kelvin absolute electrometer, and smaller portable electrometers and gauges on the same principle.

As a standard of capacity there is a cylindrical air condenser of the B.A. pattern. This was measured, cleaned, and set up by H. M. Tory in November, 1893. Its capacity has not been determined absolutely. By comparison with our certificated mica standards, it was found to be nearly one-two-hundredth of a microfarad, the value intended by the maker.

The mica-standards and subdivided boxes have been carefully compared with each other and tested for insulation and absorption. They are above the average in quality and accuracy.

For the purpose of studying the behaviour of insulators under the influence of long continued and intense electric stress, a subject which is now becoming of importance in connection with the transmission of power at very high voltage, there is in preparation a transformer capable of working up to 100,000 volts of sufficient power to give useful practical results.

Magnetic Tests.-Determinations of the dip and horizontal intensity have been made with the Kew instruments in different parts of the
laboratory magnetom agreement, variometer meters has affected by been of gr parts of th by no mea advantage disposition ing was su ciable for 1

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laboratory, and of the horizontal intensity with two other types of magnetometer. The values obtained showed a very satisfactory agreement, and were in all cases verified by the local and bifilar variometers. A preliminary magnetic survey with the portable variometers has been made of all the laboratories in which experiments affected by the horizontal intensity are carried on. The results have been of great utility, and show that the precautions taken in erecting parts of the building with copper pipes and heating apparatus were by no means unnecessary, and might even have been extended with advantage to the elementary laboratories. It was also found that the disposition of the motors and machinery at the other end of the building was such as to produce a magnetic disturbance scarcely appreciable for most purposes in the portions devoted to delicate work.

A complete set of apparatus for testing the magnetic quality of iron and steel, by various methods, has also been provided.

Considerable progress has been made with the equipment for advanced work in Optics, Acoustics and Heat, but little work has as yet been done by the students in these branches, owing to the arrangement of the present courses of study. The collection of apparatus is on a corresponding scale to the electrical equipment, and includes several fine and valuable instruments, such as a set of Ewing Seismographs, on which records of two earthquakes have already been obtained; a Rieffler standard clock; a set of direct-reading electrical thermometers reading to $.01^{\circ}$ Fahr., which are now being used for determining soil temperature ; a six-inch Rowland grating, with mountings and accessories by Brashear ; a complete set of spectrum and Crooke's tubes by Geissler ; mechanical models and apparatus from the Engineering Laboratory and the Instrument Company at Cambridge.
17. Testing Laboratorifs.-The principal experiments carried out in these will relate to the elasticity and strength of materials, friction, the theory of structures, the accuracy of springs, gauges, dynamometers, etc. The equipment of this laboratory includes :-
I. A Wicksteed 100-ton and an Emery 75-ton machine for testing the tensile, compressive and transverse strength of the several materials of construction. To the former has been added a specially designed arrangement, by which the transverse strength of girders and beams up to 26 ft . in length can be determined. These machines are provided with the holders required for the various kinds of tests, and new hol-
ders have also been specially designed and made in the laboratory for investigating the tensile and shearing strength of timber, for wire rope and belt tests, etc. Numerous attachments have also been made to the machines, which have already increased their efficiency. The most recent addition is a double-bearing support for transverse testing.
2. An Impact Machine, with a drop of 30 ft ., and with gearing which will enable specimens to be rotated at any required speed, and the blows to be repeated at any required intervals. By means of a revolving drum, a continuous and accurate record of the deflections of the specimens under the blows can be obtained.
3. An Unwin Torsion Machine with a specially designed angle-measurer, by which the amount of the torsion can be reeasured with extreme accuracy.
4. An Accumulator, furnishing a pressure of $3,600 \mathrm{lbs}$. per square inch. which is transmitted to the several testing machines, and ensures a perfectly steady application of stress, which is impossible when any form of pump is substituted for an Accumulator.
5. A Blake and a Worthington Steam Pump, designed to work against a pressure of $3,600 \mathrm{lbs}$. per square inch. The Accumulator may be actuated by either of the pumps, and, if at any time it is desirable to do so, either of the pumps may be employed to actuate the testing machine direct. When in operation the work of the pump and the accumulator is automatic.
6. Extensometers of the Unwin, Martens, Marshall and other types. The Extensometer equipment has recently been enriched by seven sets of improved extensometers apparatus designed and made in the laboratory.
7. An autograph recording stress strain apparatus.
8. Portable cathetometers, and also a large cathetometer specially designed and constructed for the determination of the extensions, compressions and deflections of the specimens under stress in the testing machines.
9. An Automatic Electric Motor Pump for actuating the

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Accumulator; also various electric motors for working the several machines.
10. A drying oven for beams up to 26 ft . in length. The hot air in this oven is kept in circulation by means of a fan driven by an electric motor.
iI. Numerous gauges, amongst which may be specially noticed an Emery Pressure Gauge, graduated in single lbs. up to $2,500 \mathrm{lbs}$. per square inch. The whole of the testing machines are on the same pressure circuit, and are connected with the Emery gauge and also other standard gaugez, including recording gauges. This arrangement provides a practically perfect means of checking the accuracy of the testing.
12. Special apparatus and recording gauge for the testing of hose, etc.
13. Dynamometers for measuring the strength of textile fabrics, the holding power of nails, etc.
14. Apparatus for determining the elasticity of long wires.
15. Apparatus for determining the hardness of materials of construction.
16. Zeiss and other Microscopes.
17. Delicate chemical and other Balances. A very important part of the equipment is the Certling Balance, capable of indicating with extreme accuracy weights of from .00001 lb . up to 125 lbs .
18. Micrometers of all kinds.

In the laboratories more especially devoted to the determination of the strength of materials, a very extensive investigation, in which the Third and Fourth Year students have taken part, has been carried out on the strengths of certain Canadian timbers. The experiments have now extended over a period of more than three years, and the results have been incorporated in a paper. The experiments have numbered some thousands, and are being continued.

An interesting investigation is also being conducted as to the strength and elasticity of iron and steel tubes under internal pressure.

During the session, in addition to the ordinary class exercises, important experiments have been made on the strength of car axles and on the strength and stiffness of various forms of rail-joint as compared with the solid rail.
18. Cement Laboratory. -The importance of tests of
the strength of mortars and cements is very great. The equipment of the Laboratory for the purpose is on a complete plan, including :-
(1) Three one-ton tensile testing machines, representing the best English and American practice.
(2) One 50 -ton hydraulic compressive testing machine.
(3) Volumenometers for determining specific gravity and for determining the carbonic acid in the raw material.
(4) Faija steaming apparatus for blowing tests.
(5) Mechanical hand and power mixers.
(6) Apparatus for determining standard consistency.
(7) Vicats and Gilmore's needles for determining set.
(8) Weighing hopper, spring and other balances.
(9) Gun metal moulds for tension, compression and transverse test pieces, and special moulds for placing mortar into the moulds under a uniform pressure, which, together with the mechanical mixers, enable the personal error to be eliminated.
(10) Sieves of $20,30,40,50,60,70,80,100,120$ and 180 meshes per lineal inch for determining the fineness.

The laboratory is also fitted with copper-lined cisterns, in which the briquettes may be submerged for any required time, and with capacious slated operating tables, bins and tin boxes for keeping the cement dry for any period.

In the Cement Testing Laboratory, researches have been made on the strength of mortars set under pressure, the effect of frost on natural and Portland cements, the effect of sugar on lime and cement mortars, the strength of lime and cement mortars and of the bricks in brick piers, the effect of fine grinding on the adhesive strength of cements, of using hot water in mixing mortars. Continued tests on the strength of concrete blocks in series are made by Fourth Year Students.

In addition to these researches, a large amount of work is done each year by the Third Year students, in investigating the specific gravity, fineness, setting properties, constancy of volume, and the tensile, compressive and transverse strengths of cements, both neat and with the sand. A special investigation is now being carried on on the new material called "Sand-Cement" which is being introduced on the Canadian market.
19. THE Laborato of 100 I .] behaviour cylinders, compouns condensin heat are $r$ water anc absorptior oped, and Besides th off by Rol and an Ot bury Merı fitted for smaller ins tion for illı such as ce neercury c superheate pyrometers crop recor

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Of the si experiment:

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19. Thermodynamic Laboratory.- The Thermodynamic Laboratory is furnished with an experimental steam engine of 100 I.H.P., specially designed for the investigation of the behaviour of steam under various conditions; there are four cylinders, which can be connected so as to allow of single, compound, triple or quadruple expansion, condensing or noncondensing, with or without jackets. The measurements of heat are made by large tanks, which receive the condensing water and the condensed steam. There are two hydraulic absorption brakes for measuring the mechanical power developed, and an alternative friction brake for the same purpose. Besides this large steam engine, a high speed automatic cutoff by Robb-Armstrong of Amherst, N.S., an Atkinson Cycle, and an Otto gas engine, a Stirling hot air engine by Woodbury Merrill of Ticonderoga, are provided and completely fitted for purposes of measurement and research. Many smaller instruments are provided or are in course of construction for illustrating the general principles of thermodynamics, such as calorimeters, delicate thermometers and gauges, a nercury column apparatus for investigating the properties of superheated steam and other working fluids, draft gauges, pyrometers, fuel testers, indicators, planimeters and a Mosctop recorder.

A 40 horse power two-stage air compressor of modern design for a central station is under construction in the workshops of the College, and will, it is hoped, be added to the Iaboratory during next session.

Of the six boilers which supply steam, four are fitted for experimental purposes.

In the Thermodynamic Laboratory, the experimental engine has been completely fitted for testing, the cylinder drains altered, and a new set of jacket drains fitted, so that measurements of all jacket steam can now be made separately,-a unique feature in a quadruple engine. About fifty trials have been made. The experimental boiler has been mounted for forced draft trials; two of the Babcock-Wilcox boilers have been completely fitted up for experimental work, and with them about forty full boiler trials have been carried out.

Many experiments have also been made with the Robb automatic* cut-off engine, fifty full trials having taken place, six of them with

Hirn's analysis. The Atkinson gas engine and the hot air engine have also been tested a number of times. A mass of apparatus for testing the dryness of steam (including separating, throttling and super-heating calorimeters), 'a steam orifice, a Penberthy injector and a fuel calorimeter have been permanently fitted up, and form, together with numerous pyrometers, indicators and springs, the subjects of the preliminary part of the course.

## § XV. MUSEUMS.

The Peter Redpath Museum contains large and valuable collections in Botany, Zoology, Mineralogy and Geology, arranged in such a manner as to facilitate the work in these departments. Students have access to this Museum, in connection with their attendance on the classes in Arts in the subjects above named, and also by tickets which can be obtained on application. Students will also have the use of a Technical Museum, occupying the whole of the third storey of the Engineering Building. Amongst other apparatus the Museum contains the Reuleaux collection of kinematic models, presented by W. C. McDonald, Esq., and pronounced by Professor Reuleaux to be the finest and most complete collection in America.

Architectural Equipment -The Architectural Department has bēen endowed by Mr. McDonald, the founder, with a very thorough equipment for practical purposes of instruction ; this is at present in course of provision and completion. In the Museum of the Engineering Building is included a large collection of casts both of architectural detail and ornament (fully illustrative of the historical development of the various styles) and of architectural and figure sculpture. The freehand-drawing classes for architectural students are conducted in this portion of the building.

A special architectural department has been added to the Faculty Library for the use of Students, and numerous important works have been added to the University Library. A large collection of architectural photographs is being formed, in addition to diagrams and a very complete series of lantern slides in illustration of the historical courses. Dia-
grams, n also inclt tion and

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§ XVI. WORKSHOPS.
The workshops erected on the Thomas Workman Endowment have a floor area of more than $25,000 \mathrm{sq} . \mathrm{ft}$.

The practical instruction in the workshops is designed to give the Student some knowledge of the nature of the materials of construction, to familiarize him with the more important hand and machine tools, and to give him some manual skill in the use of the same. For this purpose, the Student, during a specified number of hours per week, will work in the shops under the superintendence of the Professor of Mechanical Engineering, aided by skilled mechanics. The courses commence with graded exercises, and gradually lead up to the making of joints, members of structures, frames, etc., finally concluding in the iron-working department with the manufacture of tools, parts of machines, and, if possible, with the building of complete machines.

The equipment includes the following :
In the Carpenter, Wood-Turning and PatternMaking Departments..-Carpenters and pattern-makers' benches, wood-lathes, a large pattern-maker's lathe, circularsaw benches, jig and band saws, buzz-planer, wood-borer, universal wood-worker, etc.

In The Machine Shop.-The most improved engine lathes, a $36-\mathrm{in}$. modern upright drill, with compound table, universal milling machine, with vertical milling attachment, hand lathes, planer, universal grinding machine, universal cutter and reamer grinder, buffing machine, a $16-\mathrm{in}$. patent shaper, vise-benches, e c.

In the Smith Shoi.-Forges, hand drill, and a power hammer.
In THE Foundry - A cupola for melting iron, core oven, brass furnace, moulders' benches, etc.

The machinery in the shops is driven by a 50 I. H. P. compound engine and a io I. H. P. high speed engine.

In the workshops, a $40 \mathrm{H} . \mathrm{P}$. air compressor has formed the staple object upon which energy has been spent. This, it is hoped, will be completed and added to the Thermodynamic Laboratory during the present year. A large boring bar, with automatic feed and double heads, an Emery brass buffing machine, an overhead travelling crane of one ton capacity, with two transverse motions, in the foundry ; and two electric atc lamps and projecting lanterns compiete for class demonstration, have been the principal results of steady application in the workshops.

## Boal ding Houses, etc.

Good board and lodging may be obtained at $\$ 18$ per month; or separately, board at $\$ 12$ to $\$ 14$, and rooms $\$ 5$ to $\$ 10$ per month. The cost of drawing instruments for the whole course may be placed at from $\$ 15$ to $\$ 30$. Gown and overalls, $\$ 7$ to $\$$ io. Books per session $\$ 10$ to $\$ 30$.

Estimated necessary cost per session of $7 \frac{1}{2}$ months, including fees, but exclusive of clothing and travelling expenses, $\$ 270$ to $\$ 320$.

Students can obtain a list of Boarding Houses on application to the Secretary.

## The Applied Science Graduates’ Society.

This Society has been recently established with a view to promote a clcser relationship between the Faculty and the Graduates, and also between the Graduates themselves. The Society has issued a number of important bulletins relating to the work in the different departments, and giving an acccint of the development of the Faculty. The membership aiready includes more than one-third of the whole number of Graduates, and it is hoped that before long all of the Graduates will have joined the Society.

All information respecting the objects of the Society may be obtained on application to the Secretary.

> Honorary President, Dr. H. T. Boviey. President, T. W. Lesage, Vice-President, M. L. R. S. Lea, Ma.E., Asst. Professor.

Sec.-Treasurer, C. B. Smith, Ma.E., Assist. Professor.

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Resident Committee :-E. S. M. Lovelace, Walter C. Adams, R. F. Ogilvy, S. F. Rutherford, R. H. Jamieson.

Non-Resident Committee :-H. K. Wicksteed, Cobourg ; Geo. A. Walkem, Toronto ; Jas S. Costigan, Black Lake ; G. S. Dobson, Kingston, Kent Co. ; H. E. Huestis, Halifax ; W. J. Bulman, Charlottetown ; D. A. Stewart, Winnipeg ; R. E. Palmer, Vancouver; C. H. McNutt, Leadville ; J. P. Ball, Lemont, Ill ; G. H. Frost, New York City ; R. O.King, Harvard, Cambridge, Mass.

## THE McGILL MINING SOCIETY.

This Society was organized in 1891-2, by the Undergraduates of the Mining Department, but its scope has since been enlarged and now any Graduate or Undergraduate interested in Mining and Allied work is eligible for membership. Meetings are held fortnightly for reading and discussion of papers in subjects of interest to the Society and frequent lectures are given by outside professional men.

The primary object of the Society is of course to give the Undergraduates an opportunity to meet one another and to become acquainted with the older members of the Society, but an almost equal part of its work consists in keeping the graduates of the department in touch with the work of the University.

The officers for the year 1897-8 are :-

> Honorary President, Dr. B. J. Harrington. President, Percy Butler, Sc., 98.
Vice-President, Angus W. Davis, Sc., 98.
Sec.-Treasurer, S. F. Kirkpatrick, Sc., 99.
The Committee consists of the officers and of two members from each year who are elected at the beginning of the Session.

## SPECIAI, NOTICE.

In 1897 and subsequently, all Students in the Architectural, Civil and Mining Engineering Courses, entering the Second and Third Years will be required to be in attendance at the University, on the Ist of September, when the Field-work in Surveying will commence, (See page 107.)
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## The Principal (ex-officio)

## Professors.

| Wright, | Stewart, | Adami, |
| :---: | :---: | :---: |
| MacCallum, | Wilkins, | Birkett, |
| Craik, | Penhallow, | Alloway, |
| Girdwood, | Mills, | Finley, |
| Roddick, | Cameron, | Lafleur, |
| Gardner, | Blackader, | Armstrong, |
| Shepherd, | Ruttan, | Johnston. |
| Buller, | Bell, |  |
|  | R. Craik, M |  |
| Registrar | Ruttan, B.A | F.R.S.Can. |
| Director | eum.-J. G. | .A., M.D. |

The sixty-fifth Session of this Faculty will be opened on Tuesday, September 21st, 1897, by an introductory lecture at 3 p.m. The regular lectures in all subjects will begin on September 22nd, at the hours specified in the time-table, and will be continued until May 27th, 1898.

The Medical School of McGill University was founded in 1822 as the "Montreal Medical Institution," by Drs. W. Robertson, W. Caldwell, A. F. Holmes, J. Stephenson and H. P. Loedel-all of them at the time members of the staff of the Montreal General Hospital.
Although founded in 1822, yet no session of the "Medical Institution" was held until 1824, when it opened with 25 students; in 1844 the number of students in the Faculty was 50; in 1851, 64, with 15 graduates; in $1872-73,154$, with 35 graduates; in 1892-93, 315 , with 46 graduates; in 1894-95, 403, with 54 graduates ; in 1895-96, 419, with 90 graduates.
There were no sessions held during the political troubles
from 1836 is the 65th session of t
" Montreal In 1828 , the Govern ty of McGil in a buildin Later, the $s$ ing near th In 1846 , present cen the Faculty ing from th centre of th school buil commodatio a large diss was occupie and sufficed the present of the Univ In 1885 , by the Gov, quate. A n efforded am the Faculty, franches thr Owing to laboratory tt added in 188 to meet the
The late 1 came to the perty adjoin ulty to erec prove those
from 1836 to 1839 , and it is owing to this fact that the present is the 65th session of the Faculty. This is in reality the 68th session of the school, which is the direct continuation of the " Montreal Medical Institution."
In 1828, the "Medical Institution" was recognized by the Governors of the Royal Institution as the Medical Faculty of McGill University. At this time the lectures were given in a building on the site of the present Bank of Montreal. Later, the school was removed to a brick building still standing near the corner of Craig and St. George streets.

In 1846, the lectures of the Faculty were given in the present central building of the University, now occupied by the Faculty of Arts. On account of the inconvenience arising from the distance of the University buildings from the centre of the city, it was decided in 1850 to erect a Medical school building on Cote Street, provided with ample accommodation for Library and Museum, and furnished with a large dissecting-room and two lecture rooms; this building "as occupied for the first time during the session 1851-52, and sufficed for the wants of the Faculty until $1872-73$, when the present main building was provided by the Governors of the University.

In 1885 , the building in the University grounds, erected by the Governors for the use of this Faculty, was found inadequate. A new building was then added, which, at the time, afforded ample facilities for carrying out the great aim of the Faculty,-that of making the teaching of the primary branches thoroughly practical.
Owing to the larger classes and the necessity of thorough laboratory teaching, the Lecture Rooms and the Laboratories, added in 1885, soon became insufficient in size and equipment to meet the requirements of the Faculty.
The late Mr. John H. R. Molson, with timely generosity, came to the aid of the Faculty, and in 1893 purchased property adjoining the college grounds, and enabled the Faculty to erect new buildings, and extensively alter and improve those already in use.

## 150

These buildings were completed and officially opened by His Excellency, the Earl of Aberdeen, visitor of the University, January 8th, 1895 .

As will be seen on reference to the architect's plans in the special calendar of the Medical Faculty, the new buildings have been erected as an extension of the old ones, towards the north-west, partially facing Carlton road, and convenient to the Royal Victoria Hospital. They connect the Pathological building acquired in 1893 with the older buildings, and comprise a large modern lecture room, capable of accommodating 450 students, with adjoining preparation-rooms and new suites of laboratories for Pathology, Physiology, Histology, Pharmacology and Sanitary Science. The laboratories, etc., in the older buildings, have been greatly enlargeri and improved; the whole of the second flour has been devoted to the department of anatomy, and consists of dissect-ing-room, anatomical museum and bone-room, preparation rooms, Professors' and Demonstrators rooms, and a special Lecture Room.

On the ground floor the Library and Museum have been greatly enlarged; a room forming part of the Library has been furnished as a reading room for the use of students, where the extensive reference library of the Faculty may be consulted.

On this floor are situated also the Faculty room, the Registrar's office, the special museum for Obstetrics and Gynaecology, together with Professors' rooms, etc. The chemical laboratories have been increased by including the laboratories formerly used by the department of Physiology.

In the basement are placed the janitor's apartments, cioak rooms with numerous large lockers, the lavatory, etc., recently furnished with the most modern sanitary fittings.

Through the great liberality of the Honorable Sir Donald A. Smith in founding the "Leanchoil Endowment," and of the citizens of Montreal and Medical Graduates in subscribing to the "Campbell Memorial Fund," the Faculty has been enabled to conduct and maintain the teaching of the different branches in a high state of efficiency.

The Fa liberality the chairs dred thous on a footi with the science.
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the ReI Gynae: chemhe laboyy.
ts, cloa' etc., rengs.
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The Faculty is glad to be able to announce that, by the liberality of the Honorable Sir Donald A. Smith in endowing the chairs of Pathology and Sanitary Science with one hundred thousand dollars, it is able to establish these departments on a footing fully commensurate with their importance and with the advances and requirements of modern medical science.
(The attention of Practitioners is called to the Post Gradrate and advanced courses established in 1896 in the hospitals and laboratories connected with the Faculty of Medicine. (See page 177.)

## Lecture Rooms.

In the buildings now occupied by the Faculty, as will be seen by reference to the diagrams, in addition to the laboratories, dissecting-room, etc., there are three large lecture rocms, two capable of comfortably seating about 300 students, and one for general lectures, examinations, etc., capable of seating 450 students. These theatres are well ventilated and lighted by electricity, as indeed is the entire building. The seats are numbered, and a lecture room ticket securing a seat for the session is given each student on enregistering and paying the sessional fee.

## Rooms for Students Use.

Three cloak rooms are provided in convenient pertions of the building; and in addition commodious lockers can be procared provided with special locks at a nominal rental. A large, well lighted reading-room containing newspapers, magazines and the current medical journals, is provided in the new block, and is managed by the students themselves. The original library has been refitted as a comfortable, welllighted reading-room for students desiring to avail themselves of the reference works in the library of the Faculty.

## Dissecting Room.

The Dissecting Room, which is situated on the second floor, is L shaped, one arm of which is 76 feet in length and 3 Ift . in breadth, and the other arm 45 ft . by 32 ft . It is supplied
with thirty dissecting tables and over 200 specially constructed lockers, and is well lighted for work during the day and night. In procuring appliances for the comfort and convenience of the students, no reasonable expense has been spared.

In connection with the Dissecting room, there is a Bone room and Anatomical Museum where students have an excellent opportunity of studying osteology, frozen sections, anatomical models and dry preparations. In connection with the Bone room is a small but well arranged museum of comparative osteology. There are also rooms for demonstrators of anatomy.

## Physiological Laboratories.

The new Physiological Laboratories, which are situated on the upper floor of the new building, are supplied with the most modern apparatus for the practical teaching of this most important branch of the medical curriculum. They consist of one large room forty-five by thirty-five feet for undergradvate work, and two smaller ones for more advanced work and private research. In addition there is a room set apart for a consulting library and for the special use of the Professor of this department. The Students' Laboratory is arranged in such a way as to permit of students assisting at and taking part in demonstrations.

## Histological Laboratories.

The Histological Laboratory proper, is a large, well-lighted room on the second floor of the new building. It is so arranged that over eighty students can be present at the microscopical demonstrations. It is supplied with 50 microscopes. From the large number of microscopes employed, students will have special facilities in studying and making themselves thoroughly acquainted with the specimens that are the subjects of demonstration. In addition to the students' laboratory there is a smaller laboratory adjoining for the use of the professor and demonstrators and for special work.

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## Pharmacological Laboratory.

The Pharmacological Laboratory is a large room 45 by 35 feet, situated on the second floor of the new building, and is now furnished with the necessary appliances for the practical teaching of pharmacology. In this room is placed a teaching museum of drugs and pharmaceutical preparations, arranged according to their physiological action.

## Chemical Laboratory.

The Chemical Laboratory is large, lofty, and well-lighted from three sides. It can accommodate comfortably 124 men, but only a much smaller number are allowed to work at one time. Each student, when entering on this course, has a numbered table in the laboratory assigned to him for his use during the session. Each table has its own gas and water fixtures, and is provided with shelves for its corresponding set of reagent-bottles, as well as a drawer and locker containing a modern set of chemical apparatus especially adapted for the work. This apparatus is provided by the Faculty, and supplied to each student without extra charge. The student is only required to pay for apparatus broken or destroyed.

The laboratory is ventilated by an electric fan and fully equipped for the various courses of study, thus giving to the student unsurpassed advantages for acquiring a sound and practical knowledge of medical chemistry.

## Pathological Laboratories.

A large building of three stories, 47 by 40 feet, adjoining the College, recently acquired by the Faculty, thanks to the generosity of the late Mr. J. H. R. Molson, constitutes the Pathological Laboratory; it has undergone extensive alterations to fit it for the purpose. The uppermost floor has been converted into a work-room for the osteologist and curator; the second floor is one large laboratory for classwork in Practical Pathology and Bacteriology; upon the floor beneath are two laboratories for research, a preparation room, professor's private room and library, and culture rooms; while upon the ground floor are rooms for the attendant, for storage and for keeping animals.

## I.

## MATRICULATION.

## I. Regulations of the Faculty of Medicine of McGill Univerity.

Every Student, before he can be enregistered as an undergraduate in Medicine, must present a certificate of having passed the Matriculation Examination of the Faculty of Medicine or Arts of this University, or of having passed some State or University examination accepted by this University.

Graduates in Arts of any recognized University, and those who have passed the Entrance Examination of a Provincial Medical Council, and thus become enregistered students in medicine of a province in Canada, are exempt from further preliminary examination.

Students from the United States who have passed a State or University examination fully equivalent to that required by this University, may at the discretion of the Faculty be admitted to study without further examination.

The Matriculation Examination of this University for Medicine is held twice each year, in June and September, at the same time as that for Arts and Science. The fee for this examination is five dollars, payable on application to the Secretary of the University, W. Vaughan.

Papers for the June examinations will be sent to local centres on application to the Acting Secretary. An additional fee of four dollars, to meet local expenses, will be charged for such examination.

The September examinations are held just before the lectures in Medicine begin. These are held in McGill College, Montreal, only, and at these examinations alternative books in Classics will be accepted.

The subjects for examination are Classics, Mathematics and English, and one of the optional subjects as below.
Compulsozy Subjects:-
Examinations begin on May 3oth in McGill College and local centres, on September $1_{5}$ th in McGill College only.
Latin.-Caesar, Bell. Gall. Books I. and II. ; Virgil, Aencid, Book I., and Latin Grammar.
In both Greek (when taken as an optional subject) and Latin, translation at sight and prose composition (sentences or easy narrative, based upon the prescribed prose text), will te required.

At t

At the September, but not at the June, examination, other works in Greek and Latin equivalent to those specified, may be accepted, if application be made to the Professors of Classics at least a fortnight before the day of examination.
Mathomatics.-Arithmetic, Elementary rules, Vulgar and Decimal Fractions, Proportion, Percentage, Simple Interest, etc., Square root, and a knowledge of the Metric System; Algebra, Elementary rules, Fractions, Factors, Equations of the First Degree, Indices, Surds and easy Quadratics; Problems leading to equations; Euclidls Elements, Books I., II., III., with easy deductions.
English.-Writing from Dictation. Grammar-A paper on English Grammar, including Analysis. The candidate will be expected to show a good knowledge of accidence, as treated in any grammar prepared for the higher forms of schools. A similar statement applies to grammatical Analysis, in which the nomenclature used by Mason will be preferred. The complete English Grammar published in Sonnenschein's Parallel Grammar Series may be regarded as giving the minimum amount of information expected. English History-Candidates will be required to give the chief details of leading events. While any text-book written for the upper forms of schools may be used in preparation for the examination, Gardiner's Outline of English History (Longman's) is recommended. Composition-Candidates will write a short essay on a subject given at the time of examination. Shakspere's Richard II., ed. Deighton (Macmillan), and Scott's Lady of the Lake, ed. Stuart (Macmillan).
Optional Subjects :-
(One only of these subjects is required.)
I. French.-Grammar up to the beginning of Syntax. An easy translation from French into English, and from English into French; Dictation or similar exercise. Candidates are expected to be able to write French without gross mistakes in spelling or grammar ; special credit will be given for evidence of familiarity with the spoken language.
2. German.-The first eighty pages of Joynes' German reader (or equivalent amount), together with German accidence and translation into German, as in the First Part of Vandersmissen's German Grammar (or equivalent amount).
3. Greek.-Xenophon, Anabasis, Book I.; Greek Grammar. 4.-Chemistry.-(As in Remsen's Elements of Chemistry, pages 1.160) and Physics (Gage and Fessenden's High School Physics).
Candidates who at the examination for Associate in Arts have passed in the above subjects are admitted as Undergraduates.

Candidates who fail in one or more subjects at the June examination, or who have taken part only of the examination, and present themselves again on the following September, will be exempted from examination in those subjects only in which the Examiners may have reported them as specially qualified.

Ontario Candidates.-At the June examination, candidates from Ontario may present an equivalent amount from the books prescribed for the Junior Matriculation Examination of the University of Toronto.

Junior Leaving Examination accepted by the Universities of Ontario is accepted by the Faculty of Arts for those who purpose taking the double course of Arts and Medicine, in so far as the subjects of their programme satisfy the Examiners of the Faculty, i.c., when the subjects taken are the same as, or equivalent to, those required in McGill University.
A. Matriculation Examination for those who wish to obtain a license to practice in England, India, or any other British Posscssion (Canada excepted).

The Matriculation Examination in Medicine of this University, as described above, is accepted by the General Medical Council of Great Britain and Ireland. Graduates of this University desiring to enregister in England are thus exempted from any examination in preliminary education on production of the McGill Matriculation certificate together with a certificate that all the subjects of this Examination were passed at one time. Certificates of this University for attendance on lectures are also accepted by the General Medical Council.
B. Matriculation Examination for those who wish to obtain a licence to practice in the Province of Quebec.
No University Matriculation Examination is accepted by the College of Physicians and Surgeons of this Province. Graduates in Arts of any British or Canadian University are, however, exempted from examination on presentation of their Diplomas.

- Those who pass the Preliminary Examination described below, or Graduates in Arts who enregister as students in the C. P. \& S., Quebec, on beginning their studies in Medicine, obtain on graduating from McGill University, a license to Practice in Quebec without further examination i. any professional subject.

The requirements for this examination are :
Latin.-Caesar's Commentaries, Bks. I., II., III., IV. and V. -Virgil's Aeneid, Bks. I. and II.- The odes of Horace, Bk. I., with a sound knowledge of the Grammar of the Language.
English.-For English-speaking candidates.-A critical knowledge of one of Shakespeare's plays, viz., Twelfth Night, for 1897, with English Grammar, as in Dr. Smith or Mason.

For French-speaking candidates.-Translation into French of passages from the first eight Books of Washington Irving's Life of Columbus, with questions of Grammar. Translation into English of extracts from Fenelon's Telemaque.
French.-For French-speaking candidates.-A critical knowledge of Moliere's Le Bourgeois Gentilhomme, Fenelon's Aventures de Telemaque and La Fontaine's Fables, Books I., II., III., with questions of Grammar and Analysis.

For English-speaking candidates.-Translation into English of passages from Fenelon's Telemaque, with questions of Grammar. Translations into French of easy English extracts.
Belles Lettres and Rhetoric.-Principles of the subject as in Haven's Rhetoric, or Boyd's Rhetoric and Literary Criticism. History of the Literature of the age of Pericles in Greece, of Augustus in Rome, and of the 17th and 18th centuries of England and France.

History.-Outlines of the History of Greece and Rome, with particular knowledge of the History of Britain, France and Canada.
Goography.-A general view, with particular knowledge of Britain, France and North America.
Arithwetic.-Must include Vulgar and Decimal Fractions, Simple and Compound Proportion, Interest and Percentages, and Square Root.
Algebra.-Must include Fractions and Simultaneous Equations of the First Degree.
Gcometry.-Euclid, Books I., II., III. and VI., or the portion of plane Geometry covered by those Books. Also the measurement of the lines, surfaces and volumes, of regular geometrical figures.
Chemistry.-Outlines of the subject as in Wurtz' or Roscoe's Elements of Chemistry.
Botany.-Outlines as in Gray's "How Plants Grow."
Physics.-Outlines as in Peck-Ganot's Physics.
Philosophy-Elements of Logic as in Jevon's Logic; Elements of Philosophy, as in Professor Murray's Handbook.

The Examinations will be held in September, 1897, at Quebec, and in June, 1898, at Montreal. (See Almanac in the special Calendar of Faculty of Medicine for exact date of examinations). Applications to be made to Dr. A. T. Brosseau, Montreal, or Dr. Belleau, Quebec, either of whom will furnish schedule giving text books and percentage of marks required to pass in each subject.

Examination Fee, 20 dollars. Should the candidate be unsuccessful, one half of the fee will be returned.

Of the four years' study after having passed the Matriculation Examination, three six months' sessions, at least, must te attended at a University, College, or Incorporated School of Medicine,recognized by the "Provincial Medical Board." The first session must be attended during the year immediately succeeding the Matriculation Examination, and the final session must be in the fourth year.
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C. To obtain a license to Practice in Ontario.

Every one desirous of being registered as a matriculated medical student in the register of this College, except as hereinafter provided, must present to the Registrar the official certificate of having passed the "Departmental Pass Arts Matriculation Examination," and in addition Plysics and Chemistry-whereupon he shail be entitled to be so registered upon the payment of twenty dollars and giving proof of his icentity.
Graduates in Arts, in any University in Her Majesty's dominions, are not required to pass this examination, but may reg'ster their names with the Registrar of the College, upon giving satisfactory evidence of their qualifications, and upon paying the fee of $\$ 20$.
A certificate from the Registrar of any chartered University conducting a full Arts course in Canada, that the holder thereof matriculated prior to his enrolment in such University, and passed the examination in Arts prescribed for students at the end of the first year, shall entitle such student to registration as medical student under The Ontario Medical Act.
Every medical student, after matriculating, shall be registered in the manner prescribed by the Council, and this shall be held to be the beginning of his medical studies, which shall date from that registration.
Full details may be obtained by application to Dr. R. A. Pyne, Registrar, cor. Bay and Richmond Sts., Toronto.

## D. To practice in the Maritime Provinces.

The examination required by the Faculty of Medicine of this University is accepted in the provinces of Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland, subject to the following conditions :
The Nova Scotia Medical Board requires that 60 per cent. oi the required marks be taken, and that Physics be taken as tl e optional subject.

The New Brunswick Medical Board accepts the MeGill Matriculation, as it is the same as that required for entrance to the Faculty of Arts.

The Prince Edward Island Medical Board has requirements identical with those of New Brunswick.

The Newfoundland Medical Board accepts the McGill Matriculation, as it is identical with the Arts Matriculation, but requires Physics in addition.
Students desiring ultimately to practice in any of these provinces should, when enregistered in the Faculty of Medicine, notify the Registrar of that province of the fact, and have their matriculation enregistered.

The Registrars are : For Nova Scotia, Dr. A. H. W. Lindsay, Halifax ; for Newfoundland, Dr. J. Sinclair Tait, St. Johns'; and for New Brunswick, Dr. G. H. Coburn, Fredericton, who will furnish all details of requirements, etc.

Special matriculation examinations are held annually in New Brunswick and Nova Scotia, at dates stated in the Alnanac at the beginning of the special Calendar of the Faculty of Medicine.

These examinations, as stated above, are accepted by this University as equivalent to its Matriculation Examination.
E. To obtain license to practice in Manitoba.

An examination accepted by the University of Manitoba as equivalent to their matriculation is required on entrance, and to obtain License an examination in Professional subjects is required.
F. To obtain license to practice in North-West Territories.

No special matriculation standard is specified. Licensed practitioners of any of the other provinces are admitted to practice without examination.
Those not licensed elsewhere are examined in professional subjects only.

## G. To practice in British Columbia.

No special standard of matriculation is specified.
All desiring a license must be graduates of some recognized medical school, and pass an examination in professional subjects only.

## II.

## ENREGISTRATION.

The following are the University Regulations:
All Students desirous of attending the Medical Lectures shall, at the commencement of each Session, enrol their names and residences in the Register of the Medical Faculty.

The said Register shall be closed on the 17th of October next for the Session of 1897-98.

Fees are payable to the Registrar, and must be paid in advance at the time of enregistration.

The class tickets for the various courses are accepted as qualifying candidates for examination before the various Colleges and Licensing bodies of Great Britain and Ireland, and the College of Physicians and Surgeons of Ontario. The degree in Medicine of this University carries with it at the Licensing Boards of Great Britain the same exemptions in certain subjects as are granted to all colonial degrees.

To meet the circumstances of the General Practitioners in British North America, where there is no division of the profession into Physicians and Surgeons exclusively, the degree awarded upon graduation is that of " Doctor of Medicine and Master of Surgery," in accordance with the general nature and character of the curriculum, as fully specified hereafter. The degree is received by the College of Physicians and Surgeons of the Province of Quebec, provided the graduate from this university matriculated before the College of Physicians and Surgeons of Quebec, when entering on the study of medicine.

Any graduate therefore in medicine of the University may obtain a license to practise in the Province of Quebec without further examination, if he has complied with the above regulations.

TIME TABLE FOR SESSION 1898.97.
Time Talles for the Session of $1897-98$ will be issued to each student with his Lecture Room ticket on enregistration.

TIME TABLE OF FIRST YEAR LECTURES.


* Class taken in divisions.

TIME TABLE OF SECOND YEAR LECTURES.

| LECTURES. | Mon. | Tues, | Wed. | Thurs, | Fri. | Sat. | Lecture Theatre. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Anatomy . .......... | 9 | 9 | 9 | 9 | 9 |  | A Autumn \& Winter |
| Physiology, ........ | 2 | $\cdots$ | 2 |  | 2 |  | No. I. |
| Chemistry. | 3 |  | 3 | $\cdots$ | 3 | ...... |  |
|  | 4 | ........ | 4 |  | 4 | $\ldots$ | No. I. |
| Laboratory Work. |  |  |  |  |  |  |  |
| Anatomy | 10 | 10 | 10 | 10 | ıо | 10 | Autumn and Winter |
|  | 12.30 | 12.30 | 12.30 | 12.30 | 12.30 | 12.30 | Terms. |
| $\dagger$ Prac. Chemistry.. | 9-11 | 9-II | 9-11 | 9-17 | 9-11 | 9-11 | Spring Term, |
| $\ddagger$ Prac. Physiology |  | 2-4 |  | 2-4 |  |  |  |

## $\dagger$ Half the class only.

NOTE.-Students of the second year when not engaged in the laboratories are required to attend the Out Patients Clinics (only) of M. G. H. or R, V. H. (in a.m, to 1 p m.) ; attendance to average two hours per week. Certificates required for graduation.

TIME TABLE OF THIRD YEAR LECTURES.

| LECTURES. | Mon. | Tues. | Wed. | Thurs. | Fri. | Sat. | Lecture Theatre. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\left.\begin{array}{c} \text { Gynæcology and } \\ \text { Obstetrics ....... } \end{array}\right\}$ |  | 9 | . | 9 |  |  | II. |
| Medicine.......... |  | 10 | *11-12 | 10 | ...... |  | IIJ. |
| Surgery ........... | 10 |  | * $12-1$ | ....... | то | $\ldots$ | III. |
| $\left.\begin{array}{l}\text { Jurisprudence } \\ \text { and }\end{array}\right\}$ | 11 |  |  | 11 |  |  | 11. |
| $\left.\begin{array}{l}\text { Mental Diseases.. } \\ \text { Pharmacology } \\ \text { and } \\ \text { Therapeutics...... }\end{array}\right\}$ | 11 | 11 |  |  | 11 | $\ldots$ | 111. |
| $\left.\begin{array}{c} \text { General Pathology } \\ \text { and } \\ \text { Bacteriology...... } \end{array}\right\}$ | 5 |  | 9 |  |  | - ...... | III. |
| Hygiene........ . . | 9 | - $\cdot$. | ........ | ........ | 9 | . $\cdot$. . | III. |
| Morbid Anatomy ... |  |  |  |  |  |  |  |
| $\underset{\text { Clinical }}{\text { Medicine... }}\}$ |  | ${ }_{\text {I }}^{\text {M.G.m. }}$. |  | ${ }_{\text {R }}^{2} \mathrm{p} . \mathrm{m} . \mathrm{H}$. | ........ | - |  |
| Clinical | ${ }^{2}$ p.m. |  |  |  | ${ }^{1} \mathrm{p}$.m. |  |  |
| Surgery .... | R.V.H. |  |  |  | M.G.H. |  |  |
| $\ddagger$ Prac. Pathology ${ }_{\ddagger}$ |  | 4-6 | 4-6 | 4-6 | 4-6 |  |  |
| $\left.\begin{array}{l}\text { Sanitary } \\ \text { Chemistry. }\end{array}\right\}$ |  | $4^{-6}$ | 4-6 | 4-6 | 4-6 |  | Chem. Lab. Autumn |
| $\ddagger$ Bacteriology and Hygiene. . |  | 4-6 | 4-6 | 4-6 | 4-6 | $\ldots$ | Path. Lab. Autumn |
| ttClin. Microscopy.. |  | 4-5 | 4-6 | 4-6 | 4-6 | . $\cdot .$. | Path. Lab. Spring |
| $\ddagger \dagger$ Operative Surgery | $\cdots$ | 4-6 | 4-6 | 4-6 | $4^{-6}$ | . $\cdot$...... | Anat. Lab. Spring |

*Alternate weeks M.G.H. and R.V.․․ $\dagger$ Optioaal. $\ddagger$ Class taken in groups.
TIME TABLE OF FOURTH YEAR LECTURES.

| LECTURES. | Mon. | Tues. | Wed. | Thurs. | Fri. | Sat. | Lecture Theatre. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gynæcology . . . . . . . |  | 9 | - |  |  |  | II. |
| Obstetrics . ......... | . . . . . | . . . . . $\cdot$. | 9 | . . . . . . | II | * . $\quad$. . | II. |
| Medicine ...... .... |  | 10 | +11-12 | 10 | . . . . | . | III. |
| Surgery . . . . . . . . | 10 | . . . . . . ${ }^{\text {a }}$ | $\ddagger$ 12-1 |  | 10 | $\cdot$ | III. |
| Medical and |  |  |  |  |  |  | III. |
| Surg. Pathology , |  |  |  | 9 | . | $\cdots$ | H. |
| Ophthalmology.. ... | 9 | M-12 |  | *...... |  |  | $\stackrel{\text { II }}{\text { ¢ }}$ |
| *Out-Patients ${ }_{\text {Clinics..... }}$ ( | 11-12 | 1 1 -12 | 11-12 | 11-12 | 11-12 | 11-12 | R.V.H. |
| Clinical ${ }^{\text {Clinics..... }}$ | 12-1 | 12-1 | 12-1 | 12-1 | 12-1 |  | M.G.H. |
| Clinical Medicine. $\}$ | . . . . . ${ }^{\text {a }}$ |  |  |  | 2 |  | R.V.H. |
| Clinical Medicine. .. | 1 |  |  |  |  |  | M.G.H. |
| Clinical Surgery .... | . . . . . ${ }^{\text {a }}$ | 1 | . . . . | . . . . $\cdot \cdots$ |  | $\cdots$ | M.G.H. |
| Gynæcological ${ }^{\text {Surgery }}$... |  |  |  | 2 |  |  | R.V.H. |
| Operations.... | . $1 . .1$. | 11 | . | . . . . . . ${ }^{\text {c }}$ | *...... |  | R.V.H. |
| *Clinical | 4 | . $\cdot . .1$ | 4 |  | . . . . . ${ }^{\text {a }}$ |  | M.G.H. |
| Ophthalmology . | 4 | 4 |  |  | 4 |  | R.V.H, |
|  | - | 4 |  | 4 | . . . . . . |  | M.G.H. |
| Clinics ..... | 11 |  |  | 4 | . . . . | . $\cdot$ | R.V.H. |
| Morbid Anatomy . . | . ....... | . ${ }^{\text {c. }}$ |  |  | . . . . . . | $\ddagger 9^{-11}$ |  |
| Clinical |  |  |  |  |  |  | Mater- |
| *IIG Obstetrics .... | $\cdots$ | * | , | . . . . $*$. | . . . . . |  | nity Hospital. |
| $\left.\begin{array}{c}\text { *Dermatological } \\ \text { Clinic ........ }\end{array}\right\}$ |  |  | 2 | . . . . . ${ }^{\text {a }}$ |  |  | M.G.H. |
| Genito-Urinary |  |  |  |  |  | 3 | R,V. H. |
| * Diseases of Chilid- |  | . . $\cdot$. $\cdot$ |  |  |  | 3 |  |
| * Diseases of Clinic .... ren Clider |  | 4 |  |  | 4 | . | M.G.H. |
| *Laryngology | 4 | $\cdots$ | . |  | 4 | , | M.G.H, |

[^2]
## III.

## COURSES OF LECTURES.

The Corporation of the University, on the recommendation of the Faculty of Medicine, in 1894, consented to the extension of the courses of lectures in medicine over a period of about nine months instead of six.

By this means, (1) The students of the primary years have a more ample opportunity of becoming acquainted, by laboratory work, with those branches of study which form the scientific basis of their profession, and (2) the final students will be able to derive the greatest benefit from the abundance of clinical material provided in the two Hospitals.

By this arrangement, while the actual number of didactic lectures per session will be decreased, there will be a corresponding increase in the amount of tutorial work and individual teaching in the laboratories for Chemistry, Physiology, Anatomy, Pathology and Hygiene, as well as giving more time during the last two years of the course for the thorough study of disease in the wards of the Royal Victoria and Montreal General Hospitals.
The Faculty expects, by thus increasing the time that the different professors, lecturers and demonstrators devote to each student, to accomplish two very important ends : First, to do away with the injurious effects which result from attempting to condense the teaching of medicine and surgery into four or even five sessions of six months ; Second, to give each student a sounder and more thoroughly practical knowledge of his profession than could be obtained by attending during even five sessions of six months each.

ANATOMY.
(DESCRIPTIVE AND PRACTICAL). Professor, Francis J. Shepherd. Lffturfrs, J. M. Elder and J. A. Epringle. Senior Demonstratol, J. G. McCarthy. Demonstrators, R. Tait McKenzie, W. E. Defks, J. A. Henderson, and W. I. Bradley.
Assistant Demonstrators, J. J. Ross and A. E. Orr.
Anatomy is taught in the most practical manner possible, and its relation to Medicine and Surgery fully considered.

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The lectures are illustrated by the fresh subject, moist and dry preparations, sections, models and plates, and drawings on the blackboard.

A course of practical demonstrations in Medical, Surgical and Topographical Anatomy is also given in the final year of the course.

The department of Practical Anatomy is under the dire : control and personal supervision of the Professor of Anatomy, assisted by his staff of Demonstrators. The method: of teaching are similar to those of the best European schools, and Students are thoroughly grounded in this branch. Every Student must be examined at least three times in each part dissected, and no certificate is given unless the examinations are satisfactory. Special Demonstrations on the Brain, Thorax. Abdomen, Bones, etc., are frequently given. Prizes are awarded at the end of the Session for the best examination on the fresh subject.

The Dissecting Room is open from 8 a.m. to 6 p.m. Abundance of material provided.

## CHEMISTRY.

## Professor, Gilbirt P. Girdwood.

The course in this subject is carefully graded. Students of the first year receive lectures on Chemical and Physiological Physics and the general principles and theories of the science. In the second year the course on chemistry is extended to embrace its application to physiology and medicine, and includes a course in Organic Chemistry. The lectures are fully illustrated by experiments, for which the department is equipped with all modern Lecture-room apparatus.

## PRACTICAL CHEMISTRY.

Profesior, R. F. Ruttan.
Demonstrator, C, G. L. Wolf. Laboratory Assistant, Charles Stevenson.
Laboratory instruction in practical chemistry is given during each of the first three years of study throughout one term.
The first year's course illustrates the general principles of chemical action and the properties of typical elements. During the second year the course will include methods of qualitative analysis and the detection of poisons. In the third year a course of clinical and sanitary chemistry will be given, in
which the student will be made familiar with the application of chemistry to the diagnosis and prevention of disease. Special attention is directed to instructing the student in making accurate notes of his experiments and his conclusions. These notes are examined daily and criticised.

## PHYSIOLOGY.

Professor, Wesley Mills.
Lecturfr, W. S. Morrow.
Demonstrator, J. W. Scane.
The purpose of this Course is to make Students thoroughly acquainted, as far as time permits, with modern Physiology: its methods, its deductions, and the basis on which the latter rest. Accordingly a full course of lectures is given, in which the physical, the chemical and other aspects of the subject receive attention.

In addition to the use of diagrams, plates, models, etc.s. every department of the subject is experimentally illustrated. The experiments are mostly free from elaborate technique, and many of them are of a kind susceptible of ready imitation by the Student.

## Laboratory zoork for Senior Students :-

(I.) During a part of the Session there will be a course on Physiological Chemistry, in which the Student will, under direction, investigate food stuffs, digestive action, blood, and the more important secretions and excretions, including urine. All the apparatus and material for this course will be provided.
(2.) The remainder of the Session will be devoted to the performance of experiments which are unsuitable for demonstration to a large class in the lecture room, or that require the use of elaborate methods, apparatus, etc., together with such as each individual of the class can himself conduct.

## Laboratory work for Junior Students:

This will be somewhat similar to the course for senior students, but simpler and anatomico-physiological rather than chemical ; like the work for second year students its main object will be the illustration of impe tant physiological principles.

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## HISTOLOGY.

Professur, Geo. Wilkins.
Demonstrator, N. D. Gunn.
This will consist of a course of lectures and demonstrations with the Microscope, besides a short course in the preparation and mounting of specimens. As the demonstrations will be chiefly relied upon for teaching the Microscopic Anatomy of the various structures, the specimens under observation will then be minutely described. Plates and diagrams specially prepared for these lectures will be freely made use of.

## PHARMACOLCGY AND THERAPEUTICS.

Professor, A. D. Blackader.
Assistant Demonstrators, $\left\{\begin{array}{l}\text { F. M. Fry. } \\ \text { R. A. Kerry. }\end{array}\right.$
The lectures on this subject are graded in the following manner :

During the primary course, attention is directed chiefly to Pharmacology, including the important chemical and physical properties of the various drugs, and a brief consideration of their physiological action ; therapeutics is considered only in outline. A complete museum of Materia Medica affords the student opportunity for making himself acquainted with the drugs themselves. During the session, a course of demonstrations on Practical Materia Medica and Pharmacy is given.

During the final course, the physiological action of drugs is dwelt upon at length, and attention will be given to the therapeutic application of ail drugs and remedial measures. Prescription writing, and the various modes of administering drugs are explained and illustrated. During the course a series of lectures will be delivered in the theatres of the hospitals on special cases or groups of cases, illustrating important points in both generai and special Therapeutics.


## SURGERY.

## Professor, Thomas G. Roddick.

Demonstrators, R. C. Kirkpatrick and A. E. Garrow.
This course consists of the Principles and Practice of Surgery and Surgical Pathology, illustrated by a large collection of preparations from the Museum, as well as by specimens oblained from cases under observation at the Hospitals. The
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Graduad to each ing Class. the wards slogy. greater part of the course however is devoted to the Practice of Surgery, in which attention is constantly drawn to cases which have been observed by the class during the session. The various surgical appliances are exhibited, and their uses and application explained. Surgical Anatomy and Operative Surgery form special departments of this course.

## CLINICAL SURGERY.

Professor, James Bell.
Associate Professor, George E. Armstrong.
Lecturer, R. C. Kirkpatrick.
Demonstrators, Kenneth Cameron and A. E. Garrow.
The teaching in Clinical Surgery is conducted at the Montreal General and Royal Victoria Hospitals.
I. In the amphitheatre of each of these Hospitals, demonstrations are given and operations are performed before the senior and junior classes on alternate days.
II. Small ward classes of about io men in each are taken through the wards by the surgeon in attendance, and instruction given at the bedside concerning the nature and management of surgical cases, in each hospital, at least once per week.
III. Beds are assigned to students in rotation, and each student is required to carefully study and report cases and to assist in the surgical dressing of the same. Certificates of case reporting are given and are essential for graduation.
IV. In the Out-patient Department students have an exceptionally good opportunity to study a great variety of injuries, to witness operations in minor surgery, to come into personal contact with atient, and to take part in the applicadion of a variety of surgical dressings and appliances.


Clinical teaching, including out-patient and bed-side instruction, is given at both Royal Victoria and Montreal General Lospitals by Professors Gardner and Alloway. A large amount of Clinical material is thus available for practical instruction in this department of medicine. Numerous operations are done before the class, and made the subject of remarks. In addition to the ward-patients each hospital conducts a large cut-patient Gynaecological Clinic to which advanced students are admitted in rotation and instructed in digital and bimanual examination and in the use of instruments for diagnosis.

Particular attention is thus given to Clinical instruction, and a Clinical examination in Gynaecology similar to that held in Medicine and Surgery now forms part of the final examination.

## MEDICAL JURISPRUDENCE.

## Professor, Geo. Wilkins.

Lecturer on Mental Diseases, J. W. Burgess. Lecturer on Medico-Legal Pathology, Wyatt Johnston.
This course includes Insanity, the subject being treated of in its Medical as well as Medico-Legal aspects. Special attention is devoted to the subject of blood stains, the Clinical, Microscopic and Spectroscopic tests for which are fully described and shown to the class. The various spectra of blood in its different conditions are shown by the Microspectroscope, so well adapted for showing the reactions with exceedingly minute quantities of suspected material. Recent researches in the diagnosis of human from animal blood are alluded to. In addition to the other subjects, usually included in a course of this kind, Toxicology is taken up. The modes of action of poisons, gen ral evidence of poisoning, and classification of poisons, are first treated of, after which the more common poisons are described, with reference to symptoms, post-mortem appearances, and chemical tests. The post-mortem appearances are illustrated by plates, and the tests are shown to the class. A short course of demonstrations on Medico-legal Pathology also forms part of the instruction in this department. This course includes post-mortem methods in medicolegal cases, the pathological conditions characteristic of the more important forms of violent death and the natural causes of sudden death, which are liable to excite suspicions of homicide. The lectures are illustrated by specimens from the Coroner's Court.

# OPHTHALMOLOGY AND OTOLOGY. 

Professor, Frank Buller.<br>Lecturer, J. J. Gardner.

This will include a course of twenty-five lectures on diseases of the Eye and Ear, both didactic and clinical. In the former, the general principles of diagnosis and treatment will be dealt with; including three lectures on the errors of refraction and faults of accommodation. At the clinical lectures given in the Hospitals cases illustrative of the typical forms of ordinary diseases of the Eye and Ear will be exhibited and explained to the class. In the out-patients' department of each Hospital students have excellent opportunities of gaining clinical experience.

BOTANY.
Professor, D. P. Penhallow.
The purpose of this course is to give the students a good groundirg in the general principles of Morphology and Classification, and to advance their knowledge of the comparative physiology of animals and plants. The work comprises :

1. A course of lectures on General Morphology and Classification, together with a discussion of some of the more important functions of the plant.
2. Laboratory studies of fresh material, together with demonstrations of the more minute structures, by means of the compound microscope. In this work typical plants are studied critically with respect to their life histories, the treatment being such as to give prominence to the law of development as exemplified by the principal groups of plants.

## ZOOLOGY.

Lecturer, W. E. Deeks (Aris).
This course includes a systematic study of the Morphology and Classification of animals, illustrated by Canadian examples and by the collections in the Peter Redpath Museum. It forms a suitable introduction to Comparative Physiology.

Students may take either Zoology or Botany, but their choce should be regulated by the requirements of the law in the provinces in which they intend to practice.

Students electing either subject must continue therein for the session, except by permission from the Faculty.

Students desiring to take both Zoology and Botany during one session must apply for permission from the Faculty.
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Students in Botany or Zoology will receive tickets to the Peter Redpath Museum, and to the Museum of the Natural History Society of Montreal.

## PATHOLOGY.

Professor, J. G. Adami.
Demonstrators, $\left\{\begin{array}{l}\text { W. l. Bradley. } \\ \text { W. J. Jamieson. }\end{array}\right.$
Assistant Demonstrator, A. G. Nichols.
Laboratory Assistant, E. W. Hammund.
The following courses constitute the teaching on this subject :-
I. A course of General Pathology for Students of the Third Year (optional for those of the Fourth). Lectures are delivered twice weekly throughout the year.
2. A course of demonstrations in the performance of Autopsies for Students of the Third Year. The demonstrations are held once a week, from October until Christmas.
3. Demonstrations upon the Autopsies of the week for Students of the two Final Years. These are given during the session by Dr. Adami at the Royal Victoria Hospital, and by Dr. Wyatt Johnston at the General Hospital.

## Practical Courses.

4. The performance of autopsies. Each stadent is required to take an active part in at least six autopsies. The autopsies are conducted at the General and Royal Victoria Hospitals by the Pathologists of these Hospitals and their assistants. In addition to the actual performance of the sectio cadaveris, students are expected to attend the practical instruction given in connection with each autopsy, in the method of preparation and microscopic examination of the removed tissues, so as to become proficient in methods of preparation, staining and mounting.
5. A practical course in Morbid Histology for Students of the Third Year. This class is held once a week during the winter months. Six sections are as a rule distributed at each meeting of the class so that each student obtains a large and representative series of morbid tissues, and upon an average twenty minutes are devoted to the description and examination of each specimen. Laboratory fee to cover cost of slides, reagents, microscope, etc., $\$ 5$.
6. A course of demonstrations upon Morbid Anatomy (Museum specimens) once weekly during the winter months for students of the Fourth Year.

In addition to the above, the staff of the department give instruction to the more advanced students who desire to undertake any special work in the laboratories. Classes in clinical pathology and microscopy are given, from time to time, at the Pathological Laboratory and at the General and Royal Victoria Hospitals under the direction of the Professors of Clinical Medicine.

DEPARTMENT OF PUBLIC HEALTTH AND PREVENTIVE
MEDICINE.

Professor, Robt. Craik.

Sanitary Physics and Chemistry, $\left\{\begin{array}{l}\text { Prof. Robt. Craik. } \\ \text { Prof. R. F. Ruttan. }\end{array}\right.$

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- Bacteriology and $\left\{\begin{array}{l}\text { Prof. J. G. Adami. } \\ \text { Pror }\end{array}\right.$ Preventive Medicine. $\{$ Prof. Wyatt Johnston. Dr. H. B. Yates.
}

The Department of Public Health and Preventive Medicine has, owing to its endowment by Sir Donald A. Smith, been pade one of the most important subjects of the third year.

The instruction will consist of two lectures per week for the whole session. A systematic course in Bacteriology and Preventive Medicine, including Serum Therapy, will be followed by courses on the sanitary relations of water, soil, food and air, the use and relative value of disinfectants, domestic sanitation, including plumbing, heating, ventilations, the construction of habitations, etc., and will be illustrated by models and special apparatus. Lectures will also be given on personal hygiene, including bathing, exercise, etc., and on climate and health resorts. In addition to the course of systematic lectures, laboratory courses will be given in the Pathological and Chemical laboratories on Bacteriology, clinical and sanitary Chemistry. The laboratory work will extend over a period of three months, and will be given twice weekly.

A working museum and model room is being equipped this summer with working models and apparatus to illustrate the application of hygienic principles. Demonstrations will be given in the hygienic museum from time to time as required. (See Museums.)

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Professor, H. S. Birkett.
This course will consist of practical lessons in the use of the Laryngoscope and Rhinoscope. The instruction will be carried on with small classes so that individual attention may be insured. A limited number of clinical lectures bearing upon interesting cases attending the clinic will be delivered during the session. These lectures :will be, however, of an eminently practical nature.

## MENTAL DISEASES.

## Lecturer, T. J. W. Burgess.

This course will comprise a series of lectures at the University on Insanity in its various forms, from a medical as well as from a medico-legal standpoint. The various types of mental diseases will be illustrated by cases in the Verdun Asylum, where clinical instruction will be given to groups of senior students at intervals throughout the session.

## DISEASES OF INFANTS AND CHILDREN.

Proyessors, $\left\{\begin{array}{l}\text { J. C. Cameron. } \\ \text { A. D. Blackader. }\end{array}\right.$
Although this subject does not consitute a special chair in th:e University, systematic instruction is given $(a)$ in connection with the chair of Obstetrics and Diseases of Infants, by Prof. Cameron ; (b) by a course of lectures, clinical and didactic, by Prof. Blackader, and (c) through the Children's Clinic at the Montreal General Hospital and at the Infants' Home.

## IV. <br> DOUBLE COURSES.

By special arrangement with the Faculty of Arts, it is now possible for students to obtain the double degree of B.A. and M.D., C.M., after only six years of study.

It has been decided to allow the Primary subjects (Anatomy, Physiology and Chemistry) in Medicine to count as Honor subjects of the third and fourth years in Arts. It follows then that at the end of four years study a student may obtain his B.A. degree and have two years of his medical course completed.

The remaining two years of study are devoted to the third and fourth year subjects in Medicine.

The special provisions for Medical Students in the Arts course are as follows :

In the First Year, instead of the Chemistry appointed, a Medical Student may substitute one half of the Course in Chemistry required of students in the First Year of the Medical Faculty.
[Note.-Should, in the future, the Chemistry in the Faculty of Arts be made equivalent to that of the Faculty of Medicine, it may be taken by any Student proceeding to the Medical Degree in lieu of the course in the Medical Faculty.]

In the Second Year. The remaining half of the Course in Chemistry of the Medical Faculty may be substituted for the Psychology of the First Term and the Mathematical Physics of the Second Year. The Botany Course of the Medical Faculty may be substituted for the Botany in the Arts Course.
[Note.-The Faculty of Medicine advises Medical Students who are following the Courses in Arts prescribed for the double degree, to take the subject of Psychology if possible.]

Third Year.-Physiology and Histology with practical work therein, or Anatomy with Practical Anatomy, together with the regular examinations therein in the Faculty of Medicine, may be substituted for two courses under the heading of "Science" in the curriculum of the Third Year in Arts.
[Note-If a special course of Physics for Medical Students should be established, Natural Philosophy may not be compalsory.]

Fourth Year.-Students who have completed the Third Year in Arts and First Year in Médicine shall have the same privileges in the Fourth Year as Honour Students in this year, viz., they shall be required to attend two only of the courses of lectures given in the ordinary departments (or one course with the additional course therein), and to pass the corresponding examinations only at the Ordinary B.A. Examination. These courses should for Medical Students be in either Languages or Literature.
Students are recommended in the Third and Fourth Years to continue the study of subjects which they have already taken in the First and Second Years.
In order to obtain the above privileges, the student must give notice at the commencement of the Session to the Dean of the Faculty of Arts of his intention to claim them, and present a certificate from the Registrar of the Medical Faculty that his name is entered on the books of that Faculty. He must produce at the end of the sessions in the first two years
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a certificate of attendance on the required lectures and of standing at the corresponding examinations. In the Third and Fourth Years, he must produce certificates that he has completed each year of the Medical curriculum.

A certificate of Licentiate in Arts will be given along with the professional degree in Medicine to those who, previous to entrance upon their professional studies proper, have completed two years in the Faculty of Arts, and have duly passed the prescribed examinations therein.

## V.

## POST-GRADUATE AND ADVANCED COURSES.

The Faculty of Medicine in 1896 established post-graduate and special courses in connection with the Montreal General and Royal Victoria Hospitals and the various laboratories in the University buildings. These courses will be continued in 1898.

There will be two distinct sets of courses, one a short practical and clinical course for medical men in general practice who desire to keep in touch with recent advances in Medicine, Surgery and Pathology, and who wish special clinical experience in Gynaecology, Ophthalmology, Laryngology, eic. This course will last about six weeks, beginning about the beginning of May.

A special detailed programme will be prepared and will be sent on application in February next. The fee, including hospital fees for both Hospitals, is fifty dollars.

The other courses will be for those who have just completed their regular course in Medicine, and desire special Laboratory or Clinical teaching before beginning practice.

Arrangements have also been made to accommodate a limited number of such graduates who desire advanced and research work.

Commodious laboratories for advanced work have been equipped in connection with the Pathological and Clinical departments of both the Royal Victoria and Montreal General Hospitals, and in connection with the general laboratories for Pathology, Physiology and Chemistry, recently altered and extended in the new buildings of the Faculty.

Recent graduates of recognized universities desiring to qualify for examinations by advanced laboratory courses, or who wish to engage in special research, may enter at any time by giving a month's notice, stating the courses desired and the time at their disposal.

All the regular clinics and demonstrations of both hospitals will be open to such students on the same conditions as undergraduates in medicine of this University.

These laboratories will be open for graduates about May ist, I 898.

Further details regarding courses, fees, etc., may be obtained on application to the Registrar after Jan'lary, 1898.

THE POST-GRADUATE COURSE OF 1897.
The Faculty of Medicine of McGill University has jusit completed its second Post-Graduate Course. This course of instruction which was given in the various departments of Medicine and Surgery is especially arranged to meet the requirements of the general practitioner who is unable to devote more than a few weeks to the task of overtaking the more recent advances in his profession. The course began May 4 th, 1897 , and closed June 12 th.

Detailed time-tables were issued weekly.
The Course consisted of :-
A. A series of Evening Lectures on Recent Advances in Medicine, Surgery, Pathology, etc., four per week, and included the following among others :-

A series of four on the "Diagnosis of Abdominal Tumors," by Prof. William Osler.
Two by Prof. James Stewart, viz. "The Hand in diseases of the Nervous System" and "Facial Expression in Nervous Diseases."
"Diagnosis and Treatment of Tuberculous Joints," by Prof. T. G. Roddick.
A series of two by Prof. Adami on "Referred Pain," " Pathology of Internal Secretion," etc.
"Surgery of the Thyroid," by Prof. F. J. Shepherd.
"Genital Tuberculosis," by Prof. Wm. Gardner.
"The Early Diagnosis and Treatment of Diphtheria," by Prof. Finley.
Two lectures on " Recent Advances in the Physiology of the Circulation and their relation to Practical Medicine and Surgery," by Prof. Wesley Mills.
"On the Diagnosis and Surgery of Appendicitis," by Prof. James Bell.
"Serum Diagnosis and Serum-Therapy," by Dr. C. F. Martin.
" Modern Simple Methods of Disinfection," by Dr. Wyatt Johnston.
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" Infant Feeding," by Prof. A. D. Blackader.
Two lectures by Prof. Armstrong on " Gall-stone Surgery and Hernia."
"Early Diagnosis and Treatment of Tuberculosis," by Prof. Lafleur.
" Climate and Disease," by Dr. Solly, of Colorado.
" The Doctor and Life Insurance," by Prof. Wilkins.
B. General. Clinics - The afternoons of each day were devoted to Clinical work in the wards of the Montreal General and Royal Victoria Hospitals. Clinics in General Surgery were given by Profs. Shepherd and Bell, and in General Medicine by Profs. Jas. Stewart, Blackadier, Lafleur and Findley.

These Clinics were given on four days of each week, and were followed by a Special Clinic and the course in Operative Surgery.

The afternoons of the remaining two days of each week were occupied entirely by one or more of the following Special Clinics :
C. Special Clinics.-In Ophthalmology, including diseases of the Conjunctiva, Iris, Cornea and Retina, at the Royal Victoria Hospital, by Prof. F. Buller, and at the Montreal General Hospital, by Dr. J. J. Gardner. Special instruction in the use of the Ophthalmoscope was also given.

In Gynaecology, at the Royal Victoria Hospital, by Prof. Wm. Gardner and Dr. J. C. Webster, and at the Montreal General Hospital, by Prof. Alloway and Dr. Lockhart.

In Laryngology and the use of the Laryngoscope, at the Montreal General Hospital, by Prof. Birkett and Dr. Hamilton.

In External Palpation and Aseptic Midwifery, at the Montreal Maternity Hospital, by Prof. J. C. Cameron.

In Diseases of Children, at the Montreal General Hospital, by Profs. A. D. Blackader and G. G. Campbell.

In Dermatology, at the Montreal General Hospital, by Prof. Shepherd.

In Diseases of the Genito-Urinary Organs, at the Royal Victoria Hospital, by Prof. James Bell.

In Orthopaedics, at the Montreal General Hospital, by i)r. C. W. Wilson.

In the mornings, from nine to twelve, two or more of the following Special Demonstrations, Laboratory Courses or Laboratory Demonstrations, were given :
D. Special Demonstrations.-These were given, on Surgical Instruments, by Prof. Armstrong ; Mental Diseases, at Verdun Asylum, by Dr. T. J. W. Burgess; Medico-Legal Autopsy Methods, by Dr. Wyatt Johnston ; Operative Obstetrics, by Dr. J. C. Cameron.
e. Laboratory Courses.-These were continued for varying periods, for which a small extra fee was charged, enough to cover cost of material, on Operative Surgery, by Prof. Armstrong; Clinical Bacteriology, Clinical Microscopy of Dejecta and Blood, by Drs. Wyatt Johnston and Martin ; Clinical Chemistry, by Prof. Ruttan, and Post-Mortem Methods, by Dr. Wyatt Johnston.

The demonstrations in Operative Surgery, Clinical Microscopy of Dejecta and Blood, and the Clinical Bacteriology, were given throughout the entire course, four or five times per week.
F. Laboratory Demonstrations.-- On the Physiology of the Circulation and the Nervous System, by Prof. Wesley Mills ; Morbid Anatomy, by Dr. Wyatt Johnston ; Medical and Surgical Anatomy, by Drs. Elder and McCarthy ; Microscopical Methods, by Dr. Gunn ; Urinalysis, by Dr. Ruttan ; Scrum-Therapy and Serum Diagnosis of Typhoid, by Dr. Martin.

The courses in Dissecting and Operative Surgery, and the demonstrations in Physiology, were given during the first week.

The fee for the whole course, including hospital fees for both Hospitals, Royal Victoria and Montreal General, was fifty dollars.

## VI.

## QUALIFICATIONS FOR THE DEGREE.*

ist. No one entering after September, I894, will be admitted to the Degree of Doctor of Medicine and Master of Surgery, who shall not have attended Lectures for a period of four nine months' sessions in this University, or some other University, College or School of Medicine, approved of by this University.

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2nd. Students of other Universities so approved and admitted, on production of certificate to a like standing in this University, shall be required to pass all Examinations in Primary and Final Subjects in the same manner as Students of this University.

3rd. Graduates in Arts who have taken two full courses in General Chemistry, including Laboratory work, two courses in Biology, including the subjects of Botany, Embryology, Elementary Physiology and dissection of one or more types of Vertebrata, may, at the discretion of the Faculty, be admitted as second-year Students, such courses being accepted as equivalent to the first-year in Medicine. Students so entering will, however, not be allowed to present themselves for examination in Anatomy, until they produce certificates of dissection for two sessions.

4th. Candidates for Final Examination shall furnish Testimonials of attendance on the following branches of Medical Education,* viz :


He must also produce Certificates of having assisted at six Autopsies, of having Dispensed Medicine for a period of three months, and of having assisted at twenty Vaccinations.

5th. Courses of less length than the above will only be received for the time over which they have extended.

6 th. No one will be permitted to become a Candidate for

[^5]the degree who shall not have attended at least one full Session at this University.

7th. The Candidates must give proof of having attended during at least eighteen months the practice of the Montreal General Hospital or of the Royal Victoria Hospital, or of some other Hospital of not fewer than 100 beds, approved of by this University. Undergraduates are required to attend the OutPatient departments of the Hospitals during their second year.

8th. He must give proof of having acted as Clinical Clerk for six months in Medicine and six months in Surgery in the wards of a general hospital recognized by the Faculty, of having reported at least 10 medical and to surgical cases.

9th. He must also give proof by ticket of having attended for at least nine months the practice of the Montreal Maternity or other lying-in-hospital approved of by the University, and of having attended at least six cases.

1oth. Every candidate for the degree must, on or before the 15th day of May, present to the Registrar of the Medical Faculty testimonials of his'qualifications, entitling him to an examination, and must at the same time deliver to the Registrar of the Faculty an affirmation or affidavit that he has attained the age of twenty-one years.

11th. The trials to be undergone by the Candidate shall be in the subjects mentioned in Section 4.

12th. The following oath of affirmation will be exacted from the Candidate before receiving his degree :

## Sponsio Academica.

In Facultate Medicinae Universitatis.
Ego, A-B-B, Doctoratus in Arte Medica titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo : -me in omnibus grati animi officiis erga hanc Universitatem ad extremum vitae halitum perseveraturum ; tum poro artem medicam caute, caste, et probe exercitaturum ; et quoad in me est, omnia ad aegrotorum corporum salutem coducentia cum fide procuraturum ; quae denique, inter medendum, visa vel audita silere conveniat, won sine gravi causa vulgaturum. Ita praesens mihi spondenti adsit Numen.

13th. The fee for the Degree of Doctor of Medicine and Master of Surgery shall be thirty dollars, to be paid by the successful candidate immediately after examination.

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VII.


## EXAMINATIONS.*

Frequent oral examinations are held to test the progress of the Student, and occasional written examinations are given throughout the Session.

The Pass and Honor examinations at the close of each Session are arranged as follows :-

## First Year.

Examinations in Botany or Zoology, Histology, Physiology, Anatomy, Chemistry, Theoretical and Practical.

Students who have taken one or more University courses in Botany or Chemistry before entering may be exempted from attendance and examination. Students exempted in thefr first year subjects are allowed only a pass standing, but may present themselves for examination if they desire to attain an honor standing.

## Second Year.

Examinations in Anatomy, Chemistry, Practical Chemistry, Physiology, Histology, Pharmacology and TheRapeutics.

## Third Year.

Examinations in Pharmacology and Therapputics, Medical Jurisprudence, Public Health and Preventive Mfidicine (including Bacteriology), General Pathology, Mental Diseases, Clinical Chemistry, Obstetrics, Medicine and Surgery.

## Fourth Year.

Examinations in Medicine, Surgery, Obstetrics, Gynae. cology, Clinical Meuicine, Citinical Surgery, Clinical Obstetrics, Clinical Gynaecology, Clinical Ophthalmolocy and Practical Pathology.

By means of the above arrangement a certain definite amount of work must be accomplished by the student in each year, and an equitable division is made between the Primary and Final branches.

A minimum of 50 per cent. in each subject is required to Pass and 75 per cent. for Honors.

[^6]Candidates who fail to pass in not more than two subjects of either the first, second or third years may be granted a supplemental examination at the beginning of the following session.

Supplemental examinations will not be granted, except by special permission of the Medical Faculty, and on written application stating reasons, and accompanied with a fee of $\$ 5.00$ for each subject.

No candidate will be permitted, without special permission of the Faculty, to proceed with the work of the final year until he has passed the subjects comprised in the Primary examination.

No student will be allowed to present himself for his final examinations who has not certificates of having passed all his Primary examinations in this University.

Candidater who fail to pass in a subject of which two courses are required, may, at the discretion of the Faculty, be required to attend a third course, and furnish a certificate of attendance thereon. A course in Practical Anatomy will be accepted as equivalent to a third course of lectures in General and Descriptive Anatomy.

## VIII.

## MEDALS AND PRIZES.

1st. The "Holmes Gold Medal," founded by the Medical Faculty in the year 1865, as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine. It is awarded to the student of the graduating class who receives the highest aggregate number of marks in the different branches comprised in the Medical Curriculun.

The Student who gains the Holmes' Medal has the option of exchanging it for a Bronze Medal, and the money equivalent of the Gold Medal.

2nd. The Final Prize.-A prize in Books (or a Microscope of equivalent value) awarded for the best examination, written and oral, in the Final branches. The Holnes medallist is not permitted to compete for this prize.

3rd. The Third Year Prize.-A Prize in Books awarded for the best examination, written and oral, in the branches of the third year.

4th. The Second Year Prize.-A prize in books for the best examination in all the branches of the second year in course.

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5th The First Year Prize.-A prize in books for the best examination in all the branches of the first year in course.

6th. The "Sutherland Gold Medal," founded in 1878 by the late Mrs. Sutherland in memory of her late husband, Professor William Sutherland, M.D. It is awarded for the best examination in General and Medical Chemistry, together with creditable examination in the primary branches. The examination is held at the end of the third year.

7th. The "Clemesha Prize in Clinical Therapeutics," founded in 1889 by John W. Clemesha, M.D., of Port Hope, Ont. It is awarded to the student making the highest marks in a special clinical examination.

## IX.

## FEES.

The total Faculty fees for the whole medical course of four full sessions, including clinics, laboratory work, dissecting material and reagents, will be four hundred dollars, payable in four annual instalments of \$100 each.

For the convenience of the undergraduates the Hospital fces will hereafter be payable in the Registrar's office at the University. Ten dollars to be paid at the beginning of each of the last three sessions, viz., the second, third and fourth years. This will entitle each undergraduate to perpetual tickets for both the Montreal General and Royal Victoria Hospitals.

Partial students will be admitted to one or more courses on payment of special fees. An annual University fee of two dollars is charged students of all the faculties for the maintenance of college athletics.

It is suggested to parents or guardians of students that the fees bc transmitted direct by cheque or P.O. Order to the Registrar, who will furnish official receipts.

All fees are payable in advance to the Registrar, and except by permission of the Faculty will not be received later than October 17 th.

For Graduation Fees, see page 182.
For Hospital Fees, see pages 193, 196.

## TEXT BCOKS.

Anatomy.-Gray, Morris, Quain (Eng. Ed.).
Practical Anatomy.-Cunningham's Practical Anatomy, Ellis' Demonstrations, Holden's Dissector and Landmark's.
Thysics.-Balfour Stewart.
Inorganic Chemistry.-Remsen, Wurtz's Elementary Chemistry.
Organic Chemistry.-Remsen.
Practical Chemistry.-Odling.
Piarmacology and Therapeutics.-White, Bruce, Wood, Hare and National Dispensary.
Physiology.-Foster and Shore's Physiology for Beginners, Mills' Textbook of Animal Physiology, Foster's Physiology, Mills' Class Laboratory Exercises.
Pathology.-Ziegler and Coats' Pathology.
Practical Pathology.-Delafield \& Prudden, Payne, Boyce.
Bact eriology.-Abbott's Bacteriology.
Histology.-Klein's Elements, Schafer's Essentials of Histology.
Surgery.-Holmes, Moulin, Walsham, Erichsen, Treves, American Text-book of Surgery, Da Costa.
Practice of Medicine.-Osler, Strümpell and Fagge.
Clinical Medicine.-Musser's Medical Diagnosis ; von Jaksch Clinical Diagnosis.
Medical Jurisprudence.-Reese, Guy and Ferrier.
Mental Diseases.-Insanity and its Treatment, Blandford, 4th Ed.
Midwifery.-Lusk, and American Text Book.
I)iseases of Children.-Smith, Goodhart and Starr.

Gynaecology.-Thomas and Mundé, Skene, Garrigues.
Hygiene-Parks, Wilson.
Botany.-Gray's Text Book of Histology and Physiology.
Zoology.-Shipley, Invertebrata; Wiedersheim, Vertebrata.
Ophthalmology.-Nettleship, Higgins, De Schweinitz.
Otology.-Pritchard, Dalby.
Laryngology.-Watson Williams and Karl Seiler.
Medical Dictionary-Gould, Dunglison, Hoblyn.

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## XI.

## MUSEUMS

The Faculty has during recent years devoted special attention to the development of its museums in the several departments in which objective teaching is of especial value in the education of the student.

There are now five museums in the Medical Building : (1) the Museum of Pathology, (2) the Anatomical Museum, (3) the Museum of Public Health and Preventive Medicine, (4) the Maseum of Pharmacy, (5) the Obstetrical Museum.

Each collection is arranged and selected with the primary object of making it a teaching museum. These several collections are open to students and the public between $9 \mathrm{a} . \mathrm{m}$. and 5 p.m.

## Pathological Museum.

> Prof. J. G. Adami. E. J. Semple, Assistant Curator. M. Bailly, Osteologist and Articulator.

For the past fifty years the rich Pathological Material furnished by the Montreal General Hospital has been collected here. The Faculty is also greatly indebted to many medical men throughout Canada and different parts of the world for important contributions to the Museum.

During the past few years numerous and extremely important additions have been made to the Medical Museum.

It is particularly rich in specimens of Aneurisms. In addition to containing a large number of the more common varieties of these formations, there are specimens of such rare conditions as Aneurism of the Hepatic and Superior Mesenteric Arteries, Traumatic Aneurism of the Vertebral, together with several of the cerebral and pulmonary arteries. The most important collection probably in existence of hearts atfected with " Malignant Endocarditis" is also found. The Faculty are indebted to Prof. Osler, late of this University, for this collection.

The Museum contains also a very large collection of ditferent forms of calculi. The Faculty are mainly indebted to Prof. Fenwick for this collection.

During the past six years, M. Bailly, osteologist and articulator (lately with Tramond of Paris), has been engaged in arranging and mounting the very large number of specimens
of disease and injuries of bones which have been accumulating for years. In this collection are to be found examples of fractures and dislocations of the spine, osteoporosis, congenital dislocation of the hip, fracture of the astragalus, rultiple exostoses, \&c., \&c.

This year the Pathological Museum has undergone complete alteration. All the old fixtures have been removed, a new gallery has been erected about both rooms, reached by a single staircase in a small intermediate room in which is placed the medico-legal collection.

The first room on entering contains the extensive bone collection and calculi. The second and larger room is reserved for the moist preparations, which are arranged so as to be of easy access for the student. Water color drawings made irom the fresh specimens are mounted on swinging frames and also form a frieze at the ceiling.. These serve to recall the tug1tive colors of those preparations which become more or less altered on keeping.

## Museum of Public Health and Preventive Medicine. Director, R. F. Ruttan.

## Museum Assistant, Charles Stevenson.

This Museum has been established from the interest accruing through the endowment of the Chair of Hygiene by Sir Donald Smith in 1893 .

The museum at present is chiefly of interest on account of the number and excellence of the working models, illustrating the best modern methods of sterilization, disinfection, filtration and ventilation, together with a very useful collection of modern sanitary apparatus, illustrating the advantages and disadvantages of the water carriage system for the disposal of refuse, etc.

## Anatomical Museum.

## Director, Professor F. J. Shepherd. M. Jules Bailly, Osteologist and Articulatur.

This museum occupies a large room on the same floor and adjoining the Anatomy Lecture Room and Dissecting Room. Smaller apartments in connection are used tor private research, which is encouraged in every way by the Faculty. The Museum is well furnished and comfortable, and students have every opportunity of studying Human, Comparative and Applied Anatomy. This department has, during the past
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few years, added a very complete collection of plaster and papier mache models by Steger, after the well-known works of His and Braune, comprising :
(a) A complete set of Steger's brain sections.
(b.) Models of the cerebro-spinal and sympathetic nervous systems.
(c.) Professor Cunningham's well-known and beautiful casts of the head, showing the relation of the cerebral convolutions to the skull and its sutures.
A large collection of human brains, made by Professor Osler, formerly of this University, exhibiting the various types and extremes. A large and rare collection of anomalies of the Renal vessels and ureter, and the aorta and its branches. In Comparative Anatomy the student will find a fair amount of material, the study of which will greatly aid him in the elucidation of many points in Human Anatomy. Many skeletons mounted by Mons. Jules Bailly, Articulator to the University, representing the various classes, orders, genera and species of the animal kingdom may be consulted. A large collection, showing the pectoral girdle in birds, has been prepared under the supervision of the Professor of Anatomy. Moist and dry preparations of dissections, a large collection of frozen cross-sections of the human body, showing the normal relations of the viscera, etc., will be found convenient for study.

## XII. <br> LIBRARY.

Librarian, Prof. F. G. Finley.
Assistant Librarian, Miss M. R. Charlton.
The Library of the Medical Faculty now comprises upwards of fifteen thousand volumes, the largest special library connected with any medical school on this continent.

The valuable libraries of the late Professors Robert Palmer Howard, George Ross and Richard L. MacDonnell have been donated to the Medical Faculty. They consist of several thousand volumes, including a very complete collection of works on Diseases of the Chest.
The standard text-books and works of reference, together with complete files of the leading periodicals, are on the slelves. Students may consult any work of reference in the library between $9 \mathrm{a} . \mathrm{m}$ and $5 \mathrm{p} . \mathrm{m}$. A library reading-room for the use of students is provided.

During the past year several important additions have been made to the Library. Complete files of Virchow's Archives, the Deutsches Archiv für Klinische Medicin, and of the Zeitschrift für Klinische Medicin, have been purchased, and additions have also been made to the English and American journals, so that now the Library offers for Bibliographical purposes a wide field for research. Although the catalogue is not yet complete, it is estimated that there are at least 15,000 volumes exclusive of duplicates.

The number of volumes presented to the Library to June Ist 1897, is . . . .. .. .. .. 410
Those added by purchase .. .. .. .. .. 227
Total additions for the year . . . . 637
The total attendance, from June 2, 1896, to June 1, 1897, has been 5,920
The attendance during the previous year was .. . . . . .

4,875

## XIII.

## MCGILL MEDICAL SOCIETY.

This Society, composed of enregistered Students of the Faculty, meets every alternate Saturday during the Autumn and Winter Terms, for the reading of papers, case reports and discussions on medical subjects. A prize competition has been established in senior and junior subjects, the senior being open to all to write upon, while only the 1st, 2nd and 3rd year students are allowed to compete in the junior subjects. The papers are examined by a board elected from the Professoriate, and a first and second prize in each division of subjects is awarded to the successful candidates.

Names of competitors and titles of papers shall be sent to the Chairman of the Programme Committee before September ist, and all papers shall be subject to the call of the Committee on October ist. All papers shall be handed in for examination on or before January ioth.

The Students' reading room has been placed under the control of this Society, in which the leading English and Americtan Medical Journals are on file as well as the leading daily and weekly newspapers of the Dominion.

The annual meeting is held the first week of the Spring Term, when the foliowing officers are elected : Hon. President, elected from the Faculty ; President, Vice-President, Secre- The inter construct
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ar the conind Amerding daily he Spring President, ent, Secre-
tary, Assistant Secretary, Treasurer, Reporter, Pathologist and three Councilmen, two of whom shall be elected from the Faculty.
XIV.

## COST OF LIVING, \&e.

This will, of course, vary with the tastes and habits of the Student, but the necessary expenses need not exceed those in smalle towns. Good board may be obtained from $\$ 15$ to $\$ 20$ per month. A list of boarding-houses, which are inspected annually by a sanitary committee, is prepared by the Secretary of the University, and may be procured from the Janitor at the Medical College.

## XV. <br> HOSPITALS.

The City of Montreal is celebrated for the number and importance of its public charities. Among these its public hospitals are the most prominent and widely known. Those in which medical students of McGill University will receive clinical instruction are: (I.) The Montreal General Hospital. (2.) The Royal Victoria Hospital. (3.) Montreal Maternity Hospital.

The Montreal General Hospital has for many years been the most extensive clinical field in Canada. The old buildings, having proved inadequate to meet the increased demand for hospital accommodation, have recently been increased by the addition of two surgical pavilions, the Campbell Memorial and the Greenshield's Memorial, and of a new surgical theatre. The interior of the older buildings has now been entirely reconstructed on the most approved modern plans.

The Royal Victoria Hospital at the head of University Street was opened for the reception of patients the first of January, 1894, and affords exceptional opportunities for clinical instruction and practical training.

## Montreal General Hospital.

This hospital has been for many years the most extensive Clinical field in Canada.
It consists of a Surgical and Medical Department.
The Surgical Department has two large pavilions, containing four wards 135 feet long by 35 broad, with an intervening and connecting building in which is a large operating theatre of the most modern type, capable of seating over three
hundred and fifty students. In connection with this are preparation, etherizing, instruments, sterilizing and surgeons' rooms, also smaller operating rooms. The Surgical pavilions which were built three years ago, accommodate over one hundred patients.

The old part of the hospital, consisting of the Reed, Richardson and Morland wings, has during the past year been completely rebuilt and remodelled and forms the Medical Department. This part contains four wards, 100 feet by 40 and is arranged for ${ }^{1} 50$ beds. In this building there are wards for Gynaecological and Ophthalmological patients, a number of private wards and laboratories for Clinical Chemistry. There is also a medical amphitheatre capable of seating 150 students and a gynaecological operating room fitted up in the most modern manner. The central part of the old building is for administration purposes.

A completely new and commodious out-door patient department has been provided on the ground floor of the Richardson wing, and ther mple accommodation for the various special departme. well as large rooms for general medical and surgical s.

The Pathological L tment is a completely new building and is provided wi.. a post-mortem theatre and rooms for microscotical and bacteriological work, and also a mortuary and chapel. In this building students are offered every opportunity of perfecting their knowledge of morbid and pathological anatomy.

A large Fever Hospital under the management of the General Hospital has lately been built by the city and is situated at some distance off. It is under the medical charge of the physicians of the Montreal General Hospital, and at stated times small classes of students will visit the new hospital with the physicians in charge.

The old Fever Hospital on the grounds of the Hospital has been completely remodelled, and is now used as a laundry and kitchen.

A much larger number of patients receive treatment in the Montreal General Hospital than in any other Canadian Hospital. Last year's report shows that between two and three thousand Medical and Surgical cases were treated in the wards, and the great proportion of these were acute cases, as may be gathered from the fact that the average duration of residence was only 24.02 days. Upwards of thirty-two thousand patients are annually treated in the out-door department of this Hospital.

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Annual tickets entitling students to admission to the Hospital must be taken out at the commencement of the session, price $\$ 5.00$. These are obtained at the Hospital. Perpetual tickets will be given on payment of the third annual fee.

## The Royal Victoria Hospital.

This Hospital is situated a short distance above the University Grounds on the side of the Mountain, and overlooks the city. It was founded in July, 1887, by the munificence of Lord Mount Stephen and Sir Donald Smith, who gave half a million dollars each for this purpose.

The buildings, which were opened for the reception of patients on the first of January, 1894, were designed by Mr. Saxon Snell of London, England, to accommodate between 250 and 300 patients.

The Hospital is composed of three main buildings connected together by stone bridges ; an Administration Block in the centre, and a wing on the east side for medical patients, in immed ate connection with which is the new Pathological wing and mortuary, and a wing on the west side for surgical patients.

The Administration block contains ample accommodation for the resident medical staff, the nursing staff and domestics. The patients' entrance, the dispensary and admission rooms are also situated in this building.

The Medical wing contains three large wards, each 123 feet long by 26 feet 6 inches wide, one ward 40 feet by 26 feet 6 inches, and fifteen private and isolation wards averaging 16 feet by 12 feet, also a medical theatre with a seating capacity for 250 , and three rooms adjacent to it for clinical chemistry and other purposes. North of this wing and in direct connection with it are the Pathological laboratories and mortuary.

In this wing are situated the mortuary proper, the chapel, a post mortem room capable of accommodating 200 students, and laboratories for the microscopic and bacteriological study of morbid tissues, some designed for the use of students and others for post graduation courses and special research. Special laboratories for Pathological chemistry, Experimental Pathology, Bacteriology and Photography are also provided.

The Surgical wing contains thrce large wards, each 123 feet long by 26 feet 6 inches wide, four wards each 40 feet by 32 feet, and seven private and isolation wards, averaging 16 feet by 12 feet ; also a surgical theatre with a seating capacity for 250 , with six rooms adjacent for preparation and after recovery purposes.

In this wing are also the wards for Gynaecology and Ophthalmology.

## XVI.

## CLINICAL INSTRUCTION.

During the Session of 1897-98, two Medical, two Surgical, one Gynaecological and one Ophthalmological clinic will be held weekly in both the Montreal General and Royal Victoria Hospitals.

In addition, tutorial instruction will be given in these different departments in the wards, out-patient rooms and laboratories. Special weekly clinics will be given in the Montreal General Hospital on Dermatology and Laryngology and in the Royal Victoria Hospital on diseases of the Genito-Urinary system.

Clinical Clerks in the medical and surgical wards of both Hospitals are appointed every three months, and each cne during his term of service conducts, under the immediate directions of the Clinical Professors, the reporting of all cases in the ward allotted him. Students entering on and after October, 1893 , will be required to show a certificate of having acted for six months as clinical clerk in medicine and six months in surgery, and are required to have reported at least ten cases in medicine and ten in surgery. The instruction obtained as clinical clerk is found to be of the greatest possible advantage to Students, as affording a true practical training for his future professional life.

Dressers are also appointed to the Out-door Departments. For these appointments, application is to be made to the Assistant Surgeons, or to the resident surgeon in charge of the out-patient department.

The large number of patients affected with diseases of the eye and ear, now attending the special clinics at both hospitals, will afford Students ample opportunity to become familiar with all the ordinary affections of those organs, and to make themselves proficient in the use of the ophthalmoscope, and it is hoped that every student will thus seek to gain a practical knowledge of this important branch of Medicine and Surgery. Operations are performed on the eye by the Ophthalmic Surgeon after the outdoor patients have been seen, and Students are invited to attend the same, and, as far as practicable, to keep such cases under observation so long as they remain in the Hospital.

There are now special departments in both Hospitals for
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Gynaecology, presided over by Specialists in the branches. Students are thus enabled to acquire special technical knowledge under skilled direction. The plan of teaching piactical gynaecology for the past five years with marked success has been the limitation of the number of Students to two or three, who, in rotation, assist at the examinations, and receive instruction in the diagnosis and treatment of uterine diseases and the use of gynaecological instruments.

The Clinics at the Montreal General Hospital in Dermatology and Laryngology are very large and afford a practical training in affections of the skin and throat rarely obtained by medical students.

Infectious diseases and Insanity will also be taught clinically, the forme: in the special wards for infectious diseases, and the latter at the Verdun Hospital for the Insane.

## The Montreal Maternity.

The Faculty has great pleasure in announcing that the Corporation of the Montreal Maternity has recently made very important additions to its building, and has still further improvements in contemplation. Students will therefore have greatly increased facilities for obtaining a practical knowledge of obstetrics and diseases of infancy. An improved TarnierBudin phantom is provided for the use of the students, and every facility afforded for acquiring a practical knowledge of the various obstetric manipulations. The institution is under the direct supervision of the Professor of Midwifery, who devotes much time and attention to individual instruction. Students who have attended the course on obstetrics during the autumn and winter terms of the third year will be furnished with cases in rotation, which they will be required to report and attend till convalescent. Clinical midwifery has been placed upon the same basis as Clinical Medicine and Surgery, and a final Clinical examination instituted. Regular courses of clinical lectures are given throughout the session. Special attention is paid to the important subject of infant feeding. The Walker Girden process of modifying milk is explained and demonstrated. During the autumn and winter terms the Demonstrator of Obstetrics gives Clinical Demonstrations in the wards and instruction in operative work on the phantom. Students will find it very much to their advantage to pay special attention to their Clinical work during the spring term of the third year and the following summer. Two recident accoucheurs are appointed yearly from the graduating class to hold office for a period of six months each.

Fee for twelve months, $\$ 12.00$, payable at the Maternity Hiospital.

## XVII.

## STUDEN''S APPOINTMENTS.

Montreal General Hospital-Seven Resident Medical Officers. Royal Victoria Hospital-Six Resident Medical Officers. University Maternity-Two Resident Medical Officers.
Clinical Clerk, Gynaecology.
". " Laryngology.
" " Diseases of Children.
" " Dermatology.
" " Diseases of Nervous System.
Out-door Dressers.
Dressers in Eye and Ear Department.
Medical Clinical Clerks.
Post-mortem Clerks.
Student Demonstrators of Anatomy, 4 third-year Students.
Prosectors to Chair of Anatomy, 4.
Assistants in Practical Histology Course, 2.
Assistants in Practical Physiology Course, 4.
Assistants in Practical Chemistry, 6.

## XVIII.

## RULES FOR STUDENTS.

I. In the case of disorderly conduct, any Student may, at the discretion of the Professor, be required to leave the classroom. Persistence in any offence against discipline, after admonition by the Professor, shall be reported to the Dean of the Faculty. The Dean may, at his discretion, reprimand the Student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from classes.
2. Absence from any number of lectures can only be excused by necessity or duty, of which proof must be given. when called for, to the Faculty. The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a Session, shall in each case be determined by the Faculty.
3. While in the College, Students are expected to conduct themselves in the same orderly manner as in the Class-room
4. When Students are brought before the Faculty under the above rules, the Faculty may reprimand, impose fines, disqualify from competing for prizes and honors, suspend from Classes, or report to the Corporation for expulsion.
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The Principal: Ex Officio. Professors.

Hon. Mr. Justice Wurtele, D.C.L. Leo H. Davidson, M.A., D.C.L., Q.C. Hon. C. A. Geoffrion, Q.C., D.C. L., P.C. A. McGoun, M.A , B.C.L. T. Fortin, LL.L., B.C L. Hon. Mr. Justice Doherty, D.C.L. W. de M Marler, B.A., D.C.L. E. Lafleur, B.A., B.C.L.

Lecturer: P. C. Ryan, B.C.L.
Secretary and Registrar ; Archibald McGoun, M.A., B.C.L. Matriculation Examiner ; Eugene Lafleur, B.A., B.C.L.
The complete course of Lectures in this Faculty extends over three years and comprises all the leading branches of Legal Study ; and is designed to fully qualify those who faithfully follow it for admission to the Bar of Lower Canada.

From the fact that the system of law prevailing in the Province of Quebec rests upon the principles established in the Roman Law and in the Civil Law of France, embracing also the Commercial and Criminal Law of England as modified by our own legislation, it is believed that those availing themselves of the opportunity offered by the course of the Faculty of Law of McGill obtain a more extended and comprehensive knowledge of legal subjects and are better qualified for practice in any field than is possible under more limited conditions.

The course of Study pursued-embracing Constitutional Law and History, and familiarizing the student with the close and definite reasoning of the great Civil Law writers-affords admirable preparation for public life, as is evidenced by the fact that graduates of this Faculty are and have been, for years foremost in the field of politics.

It is also believed that to those engaged in business life the course in Commercial Law will be found specially advantageous and helpful, and can be availed of under the provision made for particular or special Courses.

Students have the free use of the Law Library of the Faculty, comprising the law libraries of the late F. Griffin, Q.C., Mr. Chancellor Day and Mr. Justice MacKay, as also that of the late Mr. Justice Torrance, belonging to the Fraser Institute, which has now been removed to the Redpath Library Building in the College Grounds; and where a special room has been provided for the law students for reading and consultation.

The Lectures are delivered in the new and well appointed rooms provided for the Faculty in the East Wing of McGill by the generosity of its already munificent benefactor, W. C. McDonald, Esq.

While the Faculty accepts for matriculation the requirements stated in the Regulations below, it nevertheless strongly recommends students intending to study law to take the B.A. course in the Faculty of Arts as a preliminary qualification ; and if that be not attainable, as much as possible of the Arts course.

## Lectures and Examinaifons.

The classes in Law will begin on Tuesday, 7th September, 189\%, at 4 p.m.

The Supplemental and Matriculation Examinations will be held on the same day, at io a.m.

The lectures will be delivered in two terms : the first beginning on Tuesday, 7th September, 1897, and the second beginning on Monday, ioth January, 1898.

The Examinations will be held in the William Molson Hall, McGill College building, at Christmas, and at the close of the session, and as announced below, unless otherwise determined by the Faculty.

The complete course of study in his Faculty extends over three years. Attendance at lectures is required of all students proceeding to the degree of B.C.L.

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## Scholarships and Prizes.

Two scholarships, each of one hundred dollars, are offered for competition, the preference being given to students whose domicile is not in Montreal or vicinity. They will be awarded after the Sessional Examinations in April, 1898, upon the results of the Examinations of the first year, and will be payable during the second year.

Prizes open to competition by all the students except the medalist and holders of scholarships will also be given to the students taking the best standing in each year.

No scholarship or prize shall, however, be awarded to any student unles̃s a sufficiently high standing, in the estimation of the Faculty, be attained, to merit it.

## Classification of Students.

Matriculated Students who do not take the whole course are classed as Partial Students, and are not entitled to proceed to the Degree of B.C.L.

Occasional Students will be received without matriculation for attendance on any particular series of Lectures.

Students who have completed their course of three years, and have passed a satisfactory examination, will be entitled, upon the certificate and recommendation of the Faculty, to the Degree of Bachelor of Civil Law.

## FACULTY REGULATIONS.

I. Any person desirous of becoming a Matriculated Student may apply to the Secretary, Prof. McGoun, 181 St. James Street, for examination and entry in the Register of Matriculation, and may procue a ticket of Matriculation and tickets of admission to the Lectures for each Session of the Course.
2. The Degree of B.A. obtained from any Canadian or other British University ; or a certificate of having passed the examination before the Bar for admission to study Law in the Province of Quebec ; or the intermediate Examination in the Facuity of Arts in McGill University, will be accepted in lieu of Examination for Matriculation in thus Faculty. For other candidates the Matriculation Examination this year will be in the following subjects :-

Latin.-Virgil, Aeneid, Book I.; Cicero, Orations I. and II. against Catiline. Latin Grammar.
French.-De Fivas' " Grammaire des Grammaires ;" *Molière, " Le Bourgeois Gentilhomme"; $\dagger$ Translation into French of Macaulay's Essay on Frederick the Great.

Lxercises in Composition and Grammatical Analysis, in English and Prench.

Mathematics.-Arithmetic; Algebra to the end of Simple Equations; Euclid, Books I., II., III.
History.-White's Outline of Universal History (or any equivalent manual); *Green's Short History of the English People ; Miles' School History of Canada; $\dagger$ Duruy, Histoire de France.
Literature.-*Collier's Biographical History of English Literature ; $\dagger$ Laharpe Course de Littérature; †Lefranc, Course de Littérature.

Rhetoric:-Whately's Rhetoric ; Blair's Lectures (small edition).
Philosophy.-Whately's Logic ; $\dagger$ Logique de Port Royal ; $\dagger$ Cousin, Histoire de la Philosophie ; *Stewart's Outline of Moral Philosophy.
N.B.-The works mentioned above preceded by an asterisk are for Eng'ish Students only. Those preceded by a cross are for French Students only. The remainder are for both English and French.
3. Students of Law shall be known as of the First, Second and Third Years, and shail be so graded by the Faculty. In each year, Students shall take the studies fixed for that year, and those only, unless by special permission of the Faculty.
4 The register of Matriculation shall be closed on the ist November in each year, and return thereof shall be immediat ly made by the Dean to the Registrar of the University. Candidates applying thereafter may be admitted on a special examination to determined by the Faculty ; and, if admitted, their names shall be returned in a supplementary list to the Registrar.
5. Persons desirous of entering as Partial Students sl all apply to the Dean of the Faculty for admission as such Students and shall obtain a ticket or tickets for the class or classes they desire to attend.
6. Students who have attended collegiate courses of legal study in other Universities, for a number of terms or sessions, may be admitted, on the production of certificates, to a like standing in this University, after examination by the Faculty.
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7. All students shall be subject to the following regulations for a:tendance and conduct :-
(a) Gowns must be worn during attendance at lectures and when in the College building.
(b) A class-book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted, and the said class-book shall be submitted to the Faculty, at each monthly meeting; and the Faculty shall, after examination of such class-book, decide which Students shall be deemed to have been sufficiently regular in their attendance to entitle them to proceed to the examination in the respective classes.
(c) Punctual attendance on all the classes proper to his year is requi:ed of each Student. Professors will note the attendance immediately on the commencement of their lectures, and will omit the lames of Students entering thereafter, unless satisfactory reasons are assigned. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class-room, if persisted in after admonition by the Professor, will be reported to the Dean of the Faculty, who may reprimand the Student or report to the Faculty, as he may decide. While in the building, or going to and from it, Students are expected to conduct themselves in the same orderly manner as in the Class-rooms. Any Professor observing improper conduct in the Class-rooms, or elsewhere in the building, will admonish the Student, a.d, if necessary, report him to the Dean.
(d) When students are reported to the Faculty under the above tu'es, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes or honours, suspend from classes, or report to the Corporation for expulsion.
(e) Any Student injuring the furniture or building will be required to repair the same at his own expense, and will, in addition, be subject to such penalty as the Faculty may see fit to impose.
(f) The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a Session, shall in each case be determined by the Faculty.
(g) All cases of discipline involving the interests of more than one Faculty, or of the University generally, shall be reported to the Principal, or, in his absence, to the Vice Principal.
8. The College year shall be divided into two terms, the first extending to the Christmas vacation, and the second from the expiration of the Christmas vacation to the end of April following.

The lectures will be delivered between the hours of half past eight and half-past nine in the morning, and between four and half-past six in the afternoon ; and special lectures in the evening, at such hours and in such order as shall be determined by the Faculty. Professors
shall have the right to substitute an examination for any such lecture.
9. At the end of each term there shall be a general examination of all the classes, under the superintendence of the Professors, and of sach other examiners as may be appointed by the Corporation; which examination shall be conducted by means of printed questions, answered by the Students in writing in the presence of the Examiners. The result shall be reported as early as possible to the Faculty.
After the examinations at the close of the second term, the Faculty shall decide the general standing of the Students, taking into consideration the examinations of both terms, both of which examina$\mathrm{ti} \sim \mathrm{ns}$ shall be considered the Sessional or Final Examinations for the college year, as the case may be.
10. No Student shall be considered as having kept a Session unless he shall have attended regularly all the courses of Lectures, and shall have passed the Sessional Examinations to the satisfaction of the Faculty in the classes of his year.
II. The Faculty shall have the power, upon special and sufficient cause shown, to grant a dispensation to any Student from attendance on any particular Course or Courses of Lectures, but no distinction shall in consequence be made between the Examinations of such Students, and those of the Students regularly attending Lectures.
12. No Student shall pass the Degree of B.C.L. unless he has prepared a Thesis, either in French or English, which shall have been approved by the Faculty. The subject of such Thesis shall be left to the choice of the Student, but it must fall within the range of study of the Faculty, and shall not exceed twenty pages of thirty lines each. Each Student shall, on or before the first day of March, forward such Thesis to the Secretary of the Faculty, marked with the nom de plume which he shall adopt, and accompanied with a sealed envelope, bearing the same nom de plume on it, and containing inside his name and the subject of his Thesis, and the envelope shall be opened in presence of the Faculty after the final decision shall be given on the respective merits of the several Theses.
13. The Elizabeth Torrance Gold Medal, in the Faculty of Law, shall be awarded to the Student, who, being of the Graduating Class, having passed the Final Examinations, and having prepared a Thesis of sufficient merit in the estimation of the Faculty to entitle him to compete, shall take the highest marks in a special Examination for the Medal, which examination shall include the subject of Roman Law.
14. Every Candidate, before receiving the Degree of B.C.L., shall make the following declaration :-
Ego A.B. polliceor, me, pro viribus meis, studiosum fore communis hujus Universitatis boni, operamque daturum ut decus ejus ac dignitatem amplificem, et officiis omnibus ad Baccalaureatus in Jure Civili gradum pertinentibus fungar.
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15. The fees in the Faculty are as follows :-

Matriculation or Registration Fee................................ $5^{50}$
Sessional Fee by Ordinary Students............................. 3600
Grounds Fee, payable by all Students including Partial........ 200

Fee for each supplemental examination........................ 500
Sessional Fee by Partial Students, for each course............. 300

Matriculation and Sessional Fees must be paid on or before Nov. Ist; and if not so paid, the name of the Student shall be removed from the books, but may be re-entered by consent of the Faculty, and on payment of a fine of not less than $\$ 3$. Students already on the tooks of the University shall not be required to pay any Matriculation Fee.
16. Partial Students may be admitted into class on such terms as shall be arranged by the Faculty.
17. The requirements and conditions for obtaining the Degree of D.C.L. in course can be ascertained upon application to the Secretary of the Faculty.

## SYLLABUS.

Tuesday, 7th September, 1897, Matriculation and Supplemental Examinations, Ordinary Lectures begin.
Saturday, ith December. Last day for notice to be sent to Secretary of Section of the Bar by candidates at the January Examinations for admission to study or to practice Law in the Province of Quebec.
Monday, ioth January, 1898. Lectures, Second Term, begin.
Wednesday, i2th January. Bar Examinations take place at Montreal.
Tuesday, ist March. Theses for Degree of B.C.L.
Monday, 25th April. Declaration of results of Examinations.
Frilav. 2 t April. Convocation for Degrees in Law.
Saturday, 4th June. Last day for notice to be sent to Secretary of Section of the Bar by Candidates at the July Examination for admission to study or to practise Law in the Province of Quebec.
Wednesday, 6th July. Bar Examinations take place at Quebec.

## EXAMINATIONS.

The date of the several Examinations will be announced during the session.

## The Course of Study

will include the following subjects :-

Agency,
Banking,
Civil Procedure,
Constitutional Law, Contracts;
Criminal Law, History of Law,

Insurance, Marriage Covenants, Notarial Law, Obligations, Real Estate, Roman Law, Successions.

While this announcement was going through the pres, the intimation was received that at a meeting of the Board of Governors, held on the 3rd July, 1897, Frederick Parker Walton, B.A., Oxon., LL.B., Edin., had been appointed Profess $\cap r$ of Roman Law, and Dean of the Faculty.

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## APPENDIX.

The attention of intending Students is called to the following provisions of the Revised Statutes of Quebec and amendments, as bearing on the requirements for the study and practice of Law in the Province.

Article 3544 R.S.Q.-Examinations for admission to study and to practise law in the Province of Quebec are held at the time and place determined by the General Council.

The places and dates as at present fixed are :

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MONTREAL......Wednesday, 12th Jan., 1898. QUEBEC
Wednesday, 6th July, 1898.
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## REQUIREMENTS FOR DEGREE OF DOCTOR OF CIVIL LAW.

## Adopted October, i88i.

Every Candidate for the degree of D.C.L. in Course must be a Bachelor of Civil Law of twelve years' standing, and must pass such examination for the Degree of D.C.L. as shall be prescribed by the Faculty of Law. He shall also, at least two months before proceeding to the Degree, deliver to the Faculty twenty-five printed copies of a Thesis or Treatise of his own composition on some subject, selected or approved by the Faculty, such Thesis to contain not less than fifty octavo pages of printed matter, and to possess such degree of merit as shall, in the opinion of the Faculty, justify them in recommending him for the degree.

The candidate shall also pay to the Secretary of the Faculty, annually during the period of twelve years, for the retention of his name on the books of the Faculty, a fee of two dollars, to from part of the Library Fund of the Faculty. Upon cause shown, however, and with the consent of the Faculty, such fees may be paid at one time before the granting of the degree.

The Examination for the Degree of D.C.L. in Course, which shall be open to all who have taken the degree of B.C.L. of this University in the past, as well as to such as may take the degree in future, shall, until changed, be on the following subjects and authors, with the requirement of special proficiency in some one of the groups below indicated. In the groups other than the one selected by the Candidate for special proficiency, a thorough acquaintance with two works of each group shall be sufficient, including in all cases the work first mentioned in each group and the first two works in group third.

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Philimore, International Law.
Hall,
Wharton, Conflict of Laws.
Savigny's International Law, by Guthrie.
Foelix, Droit International Privé.
Brocher, Droit International Privé.
Dicey on Domicile.
Story, Conflict of Laws.
Maine, Lectures on International Law.
2. Roman Law.

Ortolan's Institutes.
Mommsen's History of Rome.
Roby's Introduction to the Digest.
Muirhead's Roman Law.
Mackenzie's Roman Law.
Savigny's Roman Law in the Middle Ages.
Bryce's Holy Roman Empire.
Institutes of Gaius.
Fustel de Coulanges, La Cité Antique.

## 3. Constitutional History and Law.

Dicey's Law of the Constitution.
Stubbs' Constitutional History of England.
Hearn, Government of England.
Bagehot, English Constitution.
Franqueville, Gouvernement et Parlement Britanniques.
Gneist, Constitution of England.
Hallam, Constitutional History of England.
$\begin{array}{lll}\text { May, " " " } \\ \text { Gardiner } & \text { " }\end{array}$
Gardiner,
May, Democracy in Europe.
Freeman, Growth of the English Constitution.
Mill, Representative Government.
Bentham, Fragment on Government.
Maine, Popular Government.
4. Constitution of Canada and Works relevant thereto

Todd, Parliamentary Government in the British Colonies.
Bourinot, Federal Governmient in Canada.
Doutre, Constitution of 'Canada.
Cartwright, Cases under the British North America Act.
Lord Durham's Report on British North America.
Lareau, Histoire du Droit Canadien.
Houston's Constitutional Documents of Canada.
Volume O., Statutes of Lower Canada.
Masères' Collection of Quebec Commissions.
Laferrière, Essai sur l'Histoire du Droit Français.
Dilke, Problems of Greater Britain.
Matthews (Jehu), A Colonist on the Colonial Question. Bryce, American Commonwealth.
Curtis, History of the Constitution of the United States.
Cooley, Principles of Constitutional Law.
5. Chiminal Law, Jurisprudence and Political Science.

Stephens, History of the Criminal Law.
Blackstone, Vol. IV.
Harris, Principles of Criminal Law.
Pike, History of Crime.
Holland, Elements of Jurisprudence.
Austin, Lectures, omitting chapters on Utilitarianism.
Lorimer's Institutes.
Amos, Science of Law.
Woolsey, Political Science.
Lieber, Political Ethics.
Freeman, Comparative Politics.
Aristotle's Politics, by Jowett.
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# fatulty of Comparative 3fledicine and Veterinary \$xcience. 

The Principal (ex-oficio).
Frofessors :
D. McEaceran, F.K.C.V.S., V.S. Edin., D.V.S., Dean of the FacultyM. C. Baker, D.V.S.

Charles McEachran, D.V.S., Registrar of the Faculty.
Assciate Professors :
G. P. Girdwood, M.D.

Geo. Wilkins, M.D.
D. P. Penhallow, B.Sc.

Wesley Mills, M.A., M.D., D.V.S. A. D. Blackader, B.A, M.D. J. G. Adami, M.A., M.D. [Cantab.]. Lesturers :

$$
\text { N. D. Gunn, M.D. } \quad \text { C. F. Martin, B.A., M.D. }
$$

## Examiners :

The Piofessors and Associate Profersors, together with the following gentlemen rominated by the Provincial Government :
J. A. Couture, D.V.S., 49 Garden Street, Quebec.

A McCormick, D.V.S., Ormstown, P.Q.
A. W. Harris, D.V.S., Ottawa, Ont.

John M. Parker, D.V.S., Haverhill, Mass.
Frank Miller, V.S., New Yoik.
A. W. Clement, D.V.S., Baltimore, Md., U.S.

Naticulation Examiner.-A, N. Shewan, M.A., Lansdowne Schocl, Montreal.

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\text { SESSION } 1897-08 .
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The eighth Session of the Faculty (being the thirty-second of the Montreal Veterinary College) will be opened on Wednesday, 22nd September, 1897, by an introductory lecture, at 8 p.m., in the lecture-room of the Faculty, No. 6 Union Avenue. The regular course of lectures will begin on the following day, and will continue till the end of March. The hours of lectures will be announced later, together with any alterations.
which may be necessary, the course as herein announced being subject to such changes as the Faculty may see fit to make.

The Montreal Veterinary College was inaugurated in 1866.
The complete course of study in this Faculty extends over three years. Graduates of recognized Medical Colleges are allowed to present themselves for examination after regular attendance on one full course ; graduates of recognized Agricultural Colleges in which Veterinary Science constitutes a branch of study, after regular attendance for two full courses.

Allowances will be made to students of Human or Comparative Medicine, or others who can produce certified class tickets for attendance on any of the subjects embraced in the curriculum from any recognized college or university.

Graduates and students who avail themselves of the above privileges will nevertheless be required to pass at1 examination in the subjects comprised in the three years' course, unless, from satisfactory evidence otherwise produced, the examiners consider it to be unnecessary.

Graduates of recognized Veterinary Colleges desirous of taking the degree may do so by attendance on the final subjects for one full session, but will be required to pass the examinotions on all the subjects embraced in the curriculum, botiny excepted.

Occacional and agricu!tural students will be received without matriculation for attendance on anv particular series of lectures. Such students will not be examined, nor will they be entitled to receive class certificates except as occasional students, nor will such attendance be accepted should the student subsequently wish to become a regular student of the Faculy.

## MATRICULATION.

Every student, previous to his admission, must produce a certificate of educational acquirements satisfactory to the Faculty, or submit himself to a matriculation examination in (1) writing, (2) reading aloud, (3) dictation, (4) English grammar and (5) compo-
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Note,-It is contemplated to add the rudiments of Latin to the matriculation in the near future.
A. N. Shewan, M.A., will hold the matriculation examination on Saturday, 18th September, 9 a.m., at the College, 6 Union Avenue, when all those intending to enter the course shouid present themselves for examination. Candidates possessing certificates of education or of previous matriculation should produce them for the inspection and approval of the examiner. Graduates of any Facuity in a recognized University or Agricultural College are not required so matriculate.

No College is recognized unless its students are required to matriculate.

## REGISTRATION AND PAYMENT OF FEES.

The following are the Coilege regulations :-
All students desirous of attending the classes shall, at the commeacement of each session, enrol their names and residences in the register of the Faculty, ano procure from the Registrar a icket of registration, for which each student shall pay a fee of $\$ 5$
The said register shall be closed on the last day ot October in each year. The fees are payable to the Registrar, and all class tickets will be issued by him. and must be paid in adcance at the time of registration ; the registrar will on no consideration issuc tickets till the fees are paid. Intending students must govern themselves accordingly.*

All students must register, including those who receive free bursaries.

Fees for the whole course are $\$ 75$ per session, and, in all cases, must be paid on entering. Matriculation fee, $\$ 5$, which is to be paid prior to the examination ; $\$ 5$ for registration, and $\$ 5$ for reregistration, payable at the beginning of each of the following two Sessions, and $\$ 20$ on recsiving the diploma. Students who are allowed time for previous study will be required to pay full fees, and $\$ 5$ for registration each session. Payments must be mate in all cases as above.

In addition to the above Faculty fees, every undergraduate must pay an annual fee of $\$ 2$ for maintenance and use of college grounds.

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## STUDENTS OF THE PROVINCE OF QUEBEC.

In consideration of the annual grant, the Council of Agriculture has the privilege of sending thirteen pupils, free of expense, to the whole course; such students, however, pay a fee of $\$ 5$ for the course in Botany, $\$ 5$ annually for registration, and $\$ 2$ annual grounds fee. These Bursaries may be obtained by young men resident in the Province of Quebec, by application made to the Dean of the Faculty in the handwriting of applicants, accompanied by a recommendation from the Agricultural Society of the district in which they reside, provided the Council considers them qualified by education and in other respects for entering the College.

In all cases, except when specially arranged, Bursars will be required to give a guarantee that they will attend three Sessions, and failing to do so, they shall be required to pay the fees for the Sessions which they have attended. These Bursaries are not intended for nor will they be given to such students as do not require such aid.

## GENERAL REGULATIONS.

Students of this Faculty will be graded as of the first, the second, and the final year. In each year students will take the studies fixed for that year only, unless by special permission of the Faculty.

Persons desirous of entering as Occasional Students shall apply to the Dean of the Faculty for admission as such, and shall obtain a ticket or tickets for the class or classes they desire to attend.

All Students shall be subject to the following regulations as regards attendance and conduct :-

A class-book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted ; and the said class-book shall be submitted to the Faculty at a meeting to be held between the close of the lectures and the commencement of the examinations; and the Faculty shall, after examination of s"ch class-book, decide which Students shall be deemed to have been sufficiently regular in their attendance to entitle them to proceed to the examination in the respective classes.

Punctual attendance on all the classes proper to his year is required of each Student. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class-room, if persisted in after admonition by the Professor, will be reported to the Dean of the Faculty, who may reprimand the Student or report to the Faculty, as he may decide. While in the building, or going to ${ }^{*}$ from it, Students are expected to conduct themselves in the same
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improper conduct in the Class-rooms, or elsewhere in the building, will admonish the Student, and, if necessary, report him to the Dean.

When Students are reported to the Faculty under the above ruies, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes or honors, suspend from classes, or report to the Corporation for expulsion.

Any Student injuring the furniture or building will be required to repair the same at his own expense, and wi,l, in addition, be subject to such penalty as the Faculty may see fit to impose.

All cases of discipline involving the interest of more than one Faculty, or of the University generally, sha: 1 be reported to the Pr.ncipal, or, in his absence, to the Vice-Principal.

The Coilege year shall be divided into two terms, the first extending to the Christmas vacation, and the second from the expiration of the Christmas vacation to the 30th March following.

Each lecture shail be of one hour's duration, but the Professors sha.l have the right to substitute an examination for any such lecture.

At the end of each term there shall be a general examination ot all the classes, under the superintendence of the Professors and such other examiners as may be appointed by the Corporation. The results shall be reported as early as possible, to the Faculty.

The students have all the privileges of the McGill Medica: Faculty's Laboratories which are thus described in their annual calendar :-

## PHYSIOLOGICAL LABORATORY.

The Physiological Laboratory, which is situated on the ground floor, is supplied with the most modern apparatus for the practical teaching of this most important branch of the medical curriculum. It contains, amongst other valuable instruments: kymographs, various manometers, etc., for demonstrating blood pressure ; myographs. rheocords, moist chambers, etc., and various electrical appliances for demonstrating experiments in connection with nerve and muscle ; special apparatus for illustrating various points in res piration ; apparatus specially suitab.e for demonstrating the processes of digestion, as well as the chemical composition and nature of the secretions, and the chief constituents of the tissues and nutritive fluids. The laboratory is arranged in such a way as to permit of Students assisting at, and taking part in, these demonstrations. During the past session, important additions of apparatus have been made to the Physiological Laboratory.

## CHEMISTRY.

The course in chemistry embraces Chemical Physics, in the first portion of the course, the theory of Chemistry, both inorganc and organic, in the latter part of the course. The Chemical Laboratory, which is available to the Students of Comparatuve .1euicine, is large, lofty and well lighted, and can accommodate comfortably 76 men at one time. Each Student, when entering on his course, has a numbered table in the laboratory assigned to him for his use during the session. Each table has its own gas and water fixtures, and is provided with shelves for its corresponding set of reagent bottles, as well as a drawer and locker containing a modern set of chemical apparatus especially adapted for the work. This apparatus is provided by the Professor of Chemistry, and supplied to each Student without extra charge. The Student is required to pay only for apparatus broken or destroyed.

The laboratory is furnished with a large draught closet for ventilation, suiphuretted hydrogen apparatus, gas and combistion furnaces, eic., giving to the student unsurpassed advantages for acquiring a soand and practical knowledge of medical chemistry.

## PATHOLOGICAL LABORATORY.

In the Pathological Laboratory accommodation will be provided for Students or practitioners who desire to carry on advanced study or private pathological research. The laboratory has been entirely re-built recently, and is well stocked with the usual apparatus for pathological and bacteriological work.

The demonstrations in Morbid Anatomy will be given in a small laboratory, specially arranged for the work. The classes in Pathological Histology will be held in the Pathological Laboratory.

Through the generosity of Mr. J. H. R. Molson, the large house prevoously occupied by Professor Harrington has been converted into a Pathological Laboratory, having on the upper floor the Class and Demonstration room, capable of holding practical classes of fifty students. This is fully fitted with microscopes and other appa ratus for the purpose of Pathological Histology and Bacteriology. Upon the first floor are the Library and Professor's room, the Preparation and Research rooms, with a smaller Incubator room for Bacteriological use. On the ground floor are situated the animal and store rooms and the apartments of the assistant.

Accommodations will be provided for students or practitioners who desire to carry on advanced study or pathological research.

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## HISTOLOGICAL LABORATORY.

The Histological Laboratory is a large, well-lighted room on the
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second floor. It is so arranged that over eighty students can be present at the microscopical demonstrations. For this purpose it is supplied with thirty-five microscopes, a.l from the well-known makers, Zeiss, Hartnock and Leitz. Fiom the large number of microscopes employed, students will have special faciiities in studying and making themse.ves thorough y acquainted with the specimens that are the subjects of demonstration.

## PRACTICAL MICROSCOPY.

This is an entirely optional course, in charge of Prof. Wilkins, assisted by Dr. Gunn. It is intended especially for teaching the technique of Microscopy. Students will be showa how to examine blood, etc., also to cut, stain, and mount specimens. For this purpose, they will have furnished them normal structures, with which they will be able to secure a cabinet of at least 100 specimens, which will be of great benefit when in practice. Keagen.s and everything, except cover glasses and cabinet cases, provided. Fee, $\$ 8$.

## COURSES OF LECTURES. <br> BOTANY.

## D. P. Penhallew, M.A.Sc.

The course in Botany is designed to give Students a thorough grounding in the general morphology of plants and ability to determine species. It includes a practical study of the Spermaphytes and Pteridophyies during the first half of the session, and after Christmas a Course of lectures on general Morphology, together with a special discussion of plants possessing poisonous properties, and therefore liable to produce injury to grazing animals.

The Morphological Laboratory is well equipped with efficient dissecting microscope while the Botanic Garden and Herbarium ainord an ample supply of fresh and dried material.

## ZOOI.OGY.*

W. E. Deeks, B.A., M.D., Lecturer.

This course includes a systematic study of the classification of animals, illustrated by Canadian examples, and by the collections in the Peter Redpath Museum. It affords suitable preparation for

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## CHEMISTRY.

## Gilbert P. Girdwood, M.D.

Inorganic Chemistry is fully treated; a large portion of the course is devoted to Organic Chemistry and its relations to Medicine. The branches of Physics bearing upon or connected with Chemistry also engage the attention of the Class. For experimental illustration, abundant apparatus is possessed by the College.

The Chemical Laboratory will be open to members of the Class to repeat experiments performed during the course, under the superintendence of the Professor or his Assistant.

## PHYSIOLOGY.

## T. Wesley Mills, M.A., M.D., D.V.S.

The purpose of this Course is to make students thoroughly acquainted, so far as time permits, with modern Physiology, its methods, its deductions, and the basis on which the latter rest. Accordingly, a full course of lectures is given, in which both the Physical and the Chemical departments of the subject receive attenion.

In addition to the use of diagrams, plates, models, etc., every department of the subjects is experimentally illustrated. The experiments are free from elaborate technique, and many of them are of a kind susceptible of ready imitation by the student.

Laboratory work for Senior Students :-
(1) During a part of the Session there will be a course on Physiological Chemistry, in which the student will, under direction, investigate food-stuffs, digestive action, blood, and the more important secretions and excretions, including urine. All the apparatus and material for this course will be provided.
(2) The remainder of the Session will be devoted to the performance of such experiments as are unsuitable for demonstration to a large class in the lecture room and such as require the use of elaborate methods, apparatus, etc. The course for first year students is similar to that for senior students, though less advanced, and more attention will be given to the anatomico-physiological aspects of the subject than to the chemical.

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## HISTOLOGY.

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Geo. Wilikins, M.D.
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This will consist of a course of ten lectures and twenty-five weekly demonstrations with the microscope. As the demonstrations will be chiefly relied upon for teaching the Microscopic Anatomy of the various structures, the specimens under observation will then be minutely described. Piates and diagrams specially prepared for these lectures will be freely made use of.

## COMPARATIVE PATHOLOGY.

J. G. Adami, M.D., Professor.
C. F. Martin, M.D., Lecturer.

The teaching in Pathology at McGill Medial College includes courses in general and special Pathology, in Bacteriology (held during the summer Session), and intruction in the performance of Autopsies. These courses-while directed especially towards giving to the Students a due knowledge of the causation and course of disease in man-are necessarily based largely upon the results of observations upon the lower animals, and the greater part of all these causes is applicable equally to conditions obtaining in the domestic animals. There is in addition a practical course of Pathological Histology for Students of Comparative Medicine, and instruction is given upon the performance of Autopsies upon the lower animals.*

## MEDICINE AND SURGERY.

## D. McEachran, F.r.C.V.S.

Students of all years must attend.
The course embraces the principles and practice of Veterinary Medicine, including the diseases of domestic animals, their nature, causes, symptoms, and treatment. It necessarily includes Pathology and Pathological Anatomy, with daily clinical demonstrations in the hospital and the yard practice of the College, as well as illustrations from plates, preserved specimens, and fresh material furnished by the Pathologist.

The course on Surgery embraces Surgical Anatomy and Practices of Surgery, and will be illustrated by a large collection of surgical appliances.

[^10]The large and varied practice of the College furnishes abundance of cases for demonstration purposes. Attendance and practical work in the Pharmacy and Hospital is compulsory during the entire course, in the order arranged at the beginning of each Session, and forms an important part of the qualifications for graduation.

## ANATOMY.

## M. C. BAKER, D.V.S.

In this course the Anatomy of the horse is the subject of special study, while the structural differences of all the domestic animals are carefully explained and illustrated by fresh subjcets. There is a very large collection of anatomical models by Dr. Auzoux, o. Paris, natural injections and dissections, and a most complete collection of diagrams, including Marshall's complete set, Mons. Achille Compte's Anatomica! and Zoologica! series, also a large coilection of drawings specially prepared for the school by Mr. Scott Leighton, artist, Boston, and Mr. Hawksett, Montreal.

The dissecting room is open at all hours, subjects are easily procured, and either the Professor or Demonstrator will be in attendance to superintend and direct students in practical dissection. The room is furnished with every convenience, is thoroughly lighted, and affords students all that can be reasonably desired.

Students are required to pay for the material necessary for practical anatomy.

Before a student can be allowed to present himself for his pass examination, he must produce tickets certified by the demonstrator that he has dissected two entire subjects, --that is, one each session

## MATERIA MEDICA AND THERAPEUTICS.

A. D. Blackader, M.D., Prufessor. Neil Gunn, M.D., Lecturer.

This course comprises a description of the physiological and therapeutic action of all the more important medicines used in Veterinary Practice, with a short reference to their general properties and principa! preparations. It will also include a course in the practical work of compounding and administering medicines in the pharmacy and hospital. There will also be experimental demonstrations of the action of some of the more important drugs on animals.

## CATTLE PATHOLOGY AND OBSTETRICS.

## C. McEachran, D.V.S.

A special course on Cattle Diseases and Veterinary Obstetrics will be delivered, embracing the history of Cattle Plagues : their nature, symptoms, pathological anatomy, prophylactic and therapeutic treatment; breeding and general management of breeding animals, disease incident to gestation and parturition, etc.

## SPECIAL COURSE ON DOGS.

Professor Wesley Mills will give a special course on Dogs, which will include :-
(i.) Lectures on the physical and psychic characteristics of all the leading varieties, illustrated by specimens from his own kennels and other sources, as well as by plates, etc.
(2.) The principles of training; the feeding and general management of dogs.
(3.) The principles of breeding; the management of brood bitches and the rearing of puppies.
(4.) Bench show management and the public judging of dogs.
(5.) The rights and duties of dog owners.

In all the above courses the clinical and pathological aspects of the subjects will be considered, as well as the normal.

## THE MUSEUM.

Contains a large collection of natural and artificial specimens, consisting of skeletons of almost all the domestic animals, numerous specimens of diseased bones, preparations by Dr. Auzoux of all the different organs in the body, natural dissections, colored models, diagrams, etc., etc., all of which are used in illustrating the lectures, and to which the Students have frequent opportunities of referring. Students will also enjoy the privileges of the Museum of the Medical Facalty of McGill University, which is rich in pathological specimens.

## THE PHARMACY.

All the medicines used in the practice of the College are compounded by the Students, under the direction of the Professors, from prescriptions for each particular case, and most of them are administered or applied by them. For this purpose they are detailed for certain pharmaceutical duties alternately. By this means they become familiar with the physical properties, compatabilities, doses and uses of the medicines, and become expert in administering them to the different patients brought for treatment. Attendance and practical work in the Pharmacy are compulsory.

## THE PRACTICE.

The Hospital and Daily Clinics, as well as a very extensive outdoor practice, including most of the largest stables in the city and numerous farms in the vicinity, afford exce.lent opportunities for clinical observation on horses of all breeds and ages. Owing to the numbers of cattle kept in the city, and the valuable thoroughbred herds in the neighborhood, advanced Students are enabled to see and do considerable cattle practice. The dog practice is the largest in Canada. All canine diseases can be studied clinically, owing to the large number of dogs brought to the College for medical or surgical treatment.

Senior Students will be appointed to act alternately as dressers in the Hospital, and first and second year men must assist in administering medicines and at operations.

## *TEXT BOOKS.

The following text books are recommended :-
Anatomy.-Chauveau's Comparative Anatomy; Strangeway's Veterinary Anatomy; McFadyean's Veterinary Anatomy; Dissector's Manual, Clement.
Physiology.-Physiology for Beginners by Foster and Shore ; Prof. Mills' Text Book of Comparative Physiology ; Class Laboratory Exercises by the same author.
Histology.-Klein's Elements ; Schafer's Essentials of Histology.
Botany.-Gray's Structural Botany ; Bessey's Botany.
Zoology.-Dawson's.
Chemistry..-Wurtz's Elementary Chemistry ; Armstrong ; Remsen's Organic Chemistry.
Medicine and Surgery.-Williams' Principles and Practice of Veterinary Medicine ; Fleming's Sanitary Science and Police; Wil iams' Sur ery ; Fleming's Operative Surgery ; Robertson's Equine Medicine; Liautard's Operative Veterinary Surgery; Zuill's Translation of Friedberger and Frôhner's Pathology, etc.
Materia Medica.-Dun's Veterinary Medicines; Walley's Veterina:y Conspectus; Tuson's Pharmacy ; Hoare's Therapeutics.
Cattle Diseases.-Steel's Bovine Pathology; Clatter's Cattle Docto: (Armitage) : Fleming's Veterinary Obstetrics.
Canine Diseases.-Prof. Mills' The Dog in Health and in Disease.
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Diseases of the Dog.-Geo. Müller, tr. by A. G'ass, V. S.
Entozou,-Cobbold's Entozoa of Domestic Animals.
Pathology.-Payne's Pathology ; Fraenkei's Bacteriology ; Clement on Post Mortems.

## BOARD AND TRAVELLING EXPENSES.

Board can be obtained at from $\$ 15$ to $\$ 20$ per month.
For notice of McGill Students' Club, see "University Societies."
By the kindness of the Railway Companies, certified students of the College will be granted return tickets from Montreal to any part of their lines at greatly reduced rates, the said tickets to hold good from the close of one session to the beginning of the next.

Return tickets will a'so be granted for the Christmas vacation.

## VETERINARY MEDICAL ASSOCIATION.

This Association is for the mutual improvement of its member ${ }^{5}$ in all matters pertaining to the profession.

Graduates and students of Veterinary Medicine and graduates and students of Human Medicine are eligible to membership.

The meetings are held fortnightly, at which papers are read and. discussed, cases reported, etc.

The advantages which students derive from these meetings arevery great. Not only do they hear carefully prepared papers on subjects of professional importance, but an opportunity is afforded for practising public speaking, which in after life is often extremely useful. The fees of the Association are expended in the purchase of books for the Library, drugs for experimental purposes and the prizes awarded for papers read.

The Library is owned by the Association, and is under the control of officers who are elected annually. It contains nearly 500 volumes, embracing works of great antiquity, as well as the modern works on Veterinary Science and collateral subjects, in both the English and French languages, all of which are available for consultation and study by members.

Every student is expected to become a member. The entrance fee is $\$ 5$, and the yearly subscription $\$ 2.50$. A Diploma of Honorary Fellowsh is conferred on all members who have complied with the regulations of the Association.

## ASSOCIATION FOR THE STUDY OF COMPARAfIVE PSYCHOLOGY.

This Society is similar in constitution to the Veterivary Medical Association, and has a special library of about 100 volumes. Its object is the study of the Psychic Phenomena (intelligence, etc.) of all
classes of animals, and the diffusion of sounder views on this subject. Naturally, it is of great importance in the practice of medicine upon dumb animals as well as of peculiar scientific interest.

## DONATIONS.

John Wesley Gadsden, M.R.C.V.S., of Philadelphia, Penn., U.S.A., has generous'y donated to this Faculty his valuable libra:y of nearly 400 volumes and the specimens of his private museum, many of which are of unusual value.

## QUALIFICATIONS FOR THE DEGREE.

Candidates for the Final Examination shall furnish testimonials of attendance on lectures on the following subjects :-
Either Botany or Zoology-One course of six months, is year.
Histology,
Chemistry,
Physiology,
Anatomy,
General Pathology and Demonstrations, one course of six months.
Cattle Diseases and Obstetrics,
Practice of Medicine and Surgery, Two courses, and and 3rd years. Materia Medica and Therapeutics.

No one will be permitted to become a candidate for examination who shall not have attended at least one full course of lectures in this Faculty, including all the subjects embraced in the curriculum. Courses of less length than the above will be received only for the time over which they have extended.

Students, except by special permission of the Faculty, must parsue the subjects of Anatomy. Physiology. Chemistry, Histology and Botany or Zoology in their first session.

Candidates of the st and and years, who fail to pass in not more than two subjects. may be granted a supplemental examination at the beginning of the following session. Supplemental examinations will not be granted, except by special permission of the Faculty and on written application stating reasons, and on payment of a fee of $\$ 2$, which must be paid prior to examination.

Candidates who fail to pass in a subject of which two courses are required may, at the discretion of the Faculty, be required to attend a third course, and furnish a certificate of attendance thereon.

In addition to the written and oral examinations, candidates must pass a practical clinical test, including examination of horses for soundness, written reports being required; the clinical reports to include diagnosis, prognosis, and treatment.

The following oath or affirmation will be exacted from the candidate before receiving the degree :-

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DECLARATION OF GRADUATES IN COMPARATIVE MEDICINE AND VEIERINARY SCIENCE.

I, - - , promise and solemnly declare that I will, with my best endeavors, be careful to maintain the interests of this University, and that, to the best of my ability, I will promote its honor and dignity.

## EXAMINATIONS.

First Year.-Pass Examinations in Botany or Zoology, Histology (oral), ist Chemistry, Anatomy, Physiology, and on al! other subjects in the course of this year.

Second Year.-Pass Examinations in Chemistry, Physiology, Histology (written) and Anatomy, in addition to sessional examinations in these and the other subjects of the year.

Third Year.-Pass Examinations in Practice of Medicine and Surgery, General and Special Pathology, Veterina y Obstetrics, Diseases of Cattle, and Materia Medica and Therapeutics.
N.B.-Written and Oral Examinations will be held from time to time during the session, and attendance at these is compulso'y. The standing attained at these examinations will be taken into account at pass examinations.

## AGE FOR GRADUATION.

Students under seventeen will be received as apprentices, but cannot be entered as regular Students before attaining that age.

Minors may pass the Examinations, but cannot receive the Diploma until they are twenty-one years of age.

## REGULATIONS GOVERNING THE CONFERRING OF THE DEGREE UPON FORMER GRADUATES OF THE MONTREAL VETERINARY COLLEGE.

The Degree of Doctor of Veterinary Scienc may be conferred on former graduates of Montreal Veterinary College at any Convocation of McGill University held for conferring degrees, subject to the following regulations. which were adopted at a meeting of the Corporation of McGill University, held on the 22nd January, I890, governing the conferring of Degrees on former graduates:

Ist.-That the candidate must be found to have conducted himself throughout his professional career with honor and integrity.

2nd.-That he has not been connected with the manufacture or sale of proprietary medicines.

3rd.-That he has been engaged in actual practice for at least one year since graduating, or that he has been engaged in professional stedy at some European school.

4th.-That he shall be required to satisfy the Board that he has made reasonable progress in professional knowledge and skili.

In estimating the fitness of a candidate for a degree, account will be taken specially of work done in professional teaching, original research, publication of books or contributions to the journals of the profession.

The fee for the Diploma shall be Twenty Dollars.
An affirmation shall be administered similar to that of other Faculties, and in English.

The Degree may be conferred on absentees.
The regulations relating to fees and affirmations shall apply to ordinary undergraduates on taking the degree.

Graduates intending to apply for the Degree of D.V.S. should notify the Registrar of the Faculty at their earliest convenience, and at the same time state the grounds explicitly on which they base their claims for the Degree.

## HINTS TO STUDENTS.

The Matriculation Examination which you have to undergo is by no means a severe one, and if you are not prepared to pass it you should begin at once to improve your education.

You had better not commence professional reading till you have become familiar with the fundamental subjects. Practice, unless under the guidance of a thoroughly educated practitioner, is more likely to mislead than aid you.

It is advisable that you should arrive in Montreal before the opening day, in order to procure suitable lodgings. Endeavor by all means to be present at the introductory lectures on all subjects; you cannot miss one lecture without thereby losing valt able pre paratory information. Come prepared to procure at once the necessary text books and note books. Make your arrangements so as to enable you to devote your entire time and undivided attention to ycur studies, as the three sessions which the curriculum covers will be found none too long to accomp'ish the necessary proficiency in the various branches of study required of you. The McGill Y. M. C. A. and the McGill Students' Club are especially recommended to you.

## NOTICE TO GRADUATES.

For the purpose of increasing pathological material for the classes, graduates are earnestly requested to send any interesting or obscure pathological specimens which may be met within their practice, to the Pathological Laboratory, McGill Medical College. The specimens may be sent C.O.D. by express, and will in all cases be ac-
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knowledged. It is suggested that where reports are desired those reports can be satisfactory only when the material arrives in the freshest possible condition. It is urged, therefore, that when forwarded in bottles the tissues be placed immediately either in alcohol, fifty to seventy-five per cent., or in a mixture of equal parts of glycerine and water to which five per cent. of pure carbolic acid has been added. If dry carriage be preferred the method of surrounding the tissues with a cloth well moistened with one in one thousand corrosive sublimate solution, and wrapping this securely in oiled silk, is recommended. A report upon the nature of the specimen will be sent if desired, and the specimens, when of sufficient interest, will be preserved in the Museum with the names of the donors affixed.


## STUDENTS' MEETINGS.

The use of the lecture room or othes rooms of the College, for holding students' meetings, can be obtained by application to the Dean, stating the object of the meeting, and he may attend personally or appoint someone to represent the Faculty at said meeting. It is strictly forbidden to hold meetings for the discussion of any subject not approved by the Faculty, and students holding such meetings except as above will be dealt with by the Faculty as it may see fit.

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The McGill Normal School, in the city of Montreal, is established chiefly for the purpose of training teachers for the Protestant population, or for all religious denominations of the province of Quebec, other than the Roman Catholic. The studies in this school are carried on chiefly in English, but French is also taught.

Government of the School.
The Corporation of McGill University is associated with the Superintendent of Public Instruction in the direction of the McGill Normal School, under the regulations of the Protestant Committee of the Council of Public Instruction, and it is authorized to appoint a standing committee consisting of five members, called "The Normal School Committee," which shall have the general supervision of the affairs of the Normal School. The following members of the Corporation of the University constitute the committee of the Normal School for the Session of 1897-98.

## NORMAL SCHOOL COMMITTEE.

Prof. Wn. Peterson, M.A., LL.D., Principal of the University, Chairman. Mr. Samult Finley,
Mr. George Hague, $\}$ Governors of McGill College. J. R. Dougall, M.A.

Rev. Principal MacVicar, D.D., LL.D., \}
Fellows of McGill University. J. W. Brakenridge, B.C.L., Acting Secretary.

## OFFICERS OF INSTRUCTION.

 McGill Normal School.Sampson Paul Robins, M.A., LL.D., Principal and Ordinary Professor of Mathematics and Lecturer on Art of Teaching.
Abner W. Kneeland, M.A., B.C.L., Ordinary Projessar of English Language and Literature.

Madame $S$ Miss Gree
Mr. R, J. F
Miss Lilia
Classics
Mr. W. H. Mr. Jno. P.
Prof. D, P. T. D. Reed, Nevil N. E

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Madame Sophie Cornu, Professor of French. Miss Green, Professor of Drawing.
Mr. R. J. Fowler, Instructor in Music.
Miss Lilian B. Robins, B.A., Assistant to the Principal and Instructor in Classics.
Mr. W. H. Smith, Instructor in Tonic Sol-fia.
Mr. Jno. P. Stephen, Instructor in Elocution.
Prof. D, P. Penh. : Low, M.A.Sc., Lectu'er in Botany.
T. D. Reed, M.D., C.M., Lecturer in Physiology and Hygiene.

Nevil N. Evans, M.A.Sc., Lecturer in Chemistry.

MODEL SCHOOLS OF THE McGILL NORMAL SCHOOL.
Orrin Rexford, B.A.Sc., Head Master of Boys' School.
Miss Mary J. Peebles, Head Mistress of Girls' School.
Miss Selina F. Sloan, Head Mistress of Primary Sciool.

## ANNOUNCEMENT FOR THE SESSION 1897-98.

This Institution is intended to give a thorough training to teachers, by instruction and training in the Normal School itself and by practice in the Model Schools ; and the arrangements are of such a character as to afford the greatest possible facilities to students from all parts of the province. Hereafter the Protestant Central Board of School Examiners for the Province of Quebec will grant diplomas only to teachers-intraining of this institution, and to graduates of British and Canadian Universities.

The forty-second session of this School will commence on the first of September, 1897, and close on the thirty-first of May, 1898 . The complete course of study extends over four years, and the Students are graded as follows :-
1.-Elementary School Class.-Studying for the Elementary School Diploma.
2.-Model School Class.-Studying for the Model School Diploma.
3.-Academy Class.-Studying for the Academy Diploma.

All the following regulations and privileges apply to male and female students alike.
I. TERMS OF ADMISSION.
(Arranged from the Regulations of the Protestant Committee' of the Council of Public Instruction.)
Any British subject who produces a certificate of good moral character from the minister of the congregation to which he belongs, and evidence to show that he has completed the sixteenth year of his age, and has passed the examinations of Grade II. Academy, or has received an Elementary School Diploma, shall be admitted into the Elementary School Class at the beginning of the Session. If he has completed his seventeenth year, has passed the A.A. examinations, and has a sufficient acquaintance with conversational French, or holding an Elementary School Diploma, passes a satisfactory examination in Algebra, Geometry and French before the Principal of the Normal ${ }_{4}$ School, or holds a Model School Diploma, he shall be admitted to the Model School Class.

In exceptional cases the Principal may admit candidates to either class on the result of equivalent examinations held by himself, or by his delegates, at the beginning of the Session only. For the present year, by permission of the Protestant Committee of the Council of Public Instruction, he will exempt from examination for admission to the Elementary Schooi Class all candidates who, being out of reach of Academies, present certificates of having passed in Grade III. Model.

Candidates shall be admitted to examination for entrance only at the times regularly appointed by the Principal of the School at the beginning of the session. (See Note b.) Candidates exempt from examination can only be admitted during the first week of the session to the full course of the Elementary School Class or to the Model School Class.

At the beginning of each session the Principal of the Normal School may admit to the classes on trial persons whose qualification may be insufficient for entrance. Such persons may be excluded from the School by the Principal, whenever he may judge it best so to do ; but none shall be permitted to remain on trial after the semi-sessional examinations.

At the close of the Christmas vacation, January 5 th, 1898 , holders of Elementary Diplomas and all persons who may he authorized so to do by the Central Board of School Examiners, may enter the Normal School for the short course of training now provided by the Protestant Committee of the Council of Public Instruction. This course lasts through the four months of January, February, March and April, terminates with an examination in purely professional subjects, and leads, if satisfactory reports of skill in teaching and in discipline be received from the Model Schools, and if the terminal examination be good, to an Elementary Diploma from the Normal School.

## II. PRIVILEGES OF TEACHERS-IN-TRAINING.

All teachers-in-training who do not reside at home with their parents or guardians during their attendance at the school are entitled to free tuition.

At the close of the semi-sessional examinations, the sum of $\$ 4 \supset 0$ from the bursary fund will be divided among the forty most successful pupils who do not reside at home with their parents or guardians during their attendance at the school. Similarly, the sum of $\$ 800$ will be divided at the close of the sessional examinations. The remainder of the bursary fund will be divided as an allowance for travelling expenses among teachers-in-training residing in the province of Quebec. at a distance of more than ninety miles from Montreal, in a proportion determined by the excess of distance above ninety miles, it being provided that no allowance for travelling expenses sha!l exceed ten dollars.

All teachers-in-training who pass the semi-sessional examinations in the Normal School with 60 per cent. of the total marks, and who have not fallen below 50 per cent. in any one of the groups of subjects, English, Mathematics, French and Miscellaneous, nor in any one of the subjects required by the official course of study for the schools in which they would be authorized to teach by the diplomas to which they aspire, shall be entitled to continue in their classes after Christmas. Except by the special permission of the Principal, none other
shall be entitled to this privilege nor to a share in the Christmas bursary.

All teachers-in-training, who attain the standards defined above at the final examinations of the Normal School, shall bc entitled to Advanced Elementary Diplomas in the Elementary School Class and to Model School Diplomas in the Model School Class ; and without the concurrence of the Principal of the school and the professor of any subject in which there has been failure, none others shall receive diplomas or share in the bursary fund. Such holders of Advanced Elementary School diplomas as have taken not less than 75 per cent. of the total marks, nor less than 60 per cent. of those in any subject essential to the diploma, shall be entitled to admission among the "selected students" mentioned in the following Section, but others may be so admitted by the Principal. (See Note d.)

## III. STUDENTS FOR THE ACADEMY DIPLOMA.

The Academy Class in the Normal School being now instructed in the University, Academy Diplomas in course are no longer given by the McGill Normal School. But, under the regulations cited below*, Academy Diplomas are granted to holders of Model School Diplomas from the Normal School, who become undergraduates of the Universities.
I. The Normal School shall bring up selected students at the end of the Model School year, to the examinations for the entrance into the first year of the Faculty of Arts in the Universities. They may be examined either at the examinations for the Associate in Arts in June, or at those for the matriculation in the autumn, and shall take the full course of study in the first and second years.
2. Such students shall be enrolled in the Normal School as students of the Academy Class, and shall be under the usual pledge to teach for three years. They shall engage in the practice of teaching at such times and in such schools as may

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be arranged by the Principal from time to time, in consistence with their college work, and shall be under the Principal and the regulations of the Normal School:
3. On report of the colleges which such students may be attending, that they have passed creditably in the Christmas and sessional examinations respectively, they shall be entitled to bursaries, not exceeding thirty dollars per session, in aid of fees and board. Such bursaries may be paid by the Normal School Committee out of any fund available for the purpose.
4. On passing the intermediate, or equivalent, examinations of the Universities, such students will be entitled to receive Academy diplomas, in accordance with the regulations of the Protestant Committee of the Council of Public Instruction for such diplomas.
5. Such students may, with the advice of the Principal, attend classes at McGill or its affiliated colleges, or at Bishop's College.
6. It shall be competent to the Principal of the Normal School to provide any tutorial assistance that may in his judgment be necessary for Academy students. Also, it shall be his duty in the case of optional studies to select for the students those required for the curriculum of the Normal School.
7. It shall be competent for students who have taken Academy Diplomas as above, to continue for two years longer at the University, or to return thereto, after teaching for a time, in order to take the degree of Bachelor of Arts ; but they shall be held bound to fulfil their engagements to teach, and they shall not be entitled to bursaries.

Holders of Model School Diplomas of the McGill Normal School who are certified by the Principal of the Normal School to have taken 75 per cent. of the total marks at their final examinations, with not less than 60 per cent. of the marks in Mathematics, French, Latin and Greek, respectively, will be admitted without further examination to the first year in Arts of the McGill University, but all such students must make
good their standing in the University at the Christmas examinations.

Teachers-in-training, who do not attain the standard deusual examination for Matriculation.
iv. CONDITIONS OF CONTINUANCE IN THE NORMAL SCHOOL.

In order to continuance in the Normal School, teachers-intraining must maintain conduct and character suitable to their present position and their future calling.

Each professor shall have the power of exciuding from his lectures any Student who may be inattentive to his studies, or guilty of any minor infraction of the regulations, until the matter can be reported to the Principal. (See Note c.)

## v. ATTENDANCE ON RELIGIOUS INSTRUCTION.

Teachers-in-training will be required to state with what religious denomination they are connected; and a list of the students connected with each denomination shall be furnished to one of the ministers of such denomination resident in Montreal, with the request that he will meet weekly with that portion of the teachers-in-training, or otherwise provide for their religious instruction. Every Thursday after four o'clock will be assigned for this purpose.

In addition to punctual attendance at weekly religious instruction, each student will be required to attend public worship at his own church, at least once every Sunday.

## VI. BOARDING HOUSES.

I. The teachers-in-training shall state the place of their residence, and those who cannot reside with their parents will be permitted to live in boarding houses, but in such only as shall be specially approved of. No boarding houses having permission to board male teachers-in-training will be permitted to receive female teachers-in-training as boarders, and vice versa. (See Note g.)
2. They are on no account to be absent from their lodgings after half-past nine o'clock in the evening.
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3. They will be allowed to attend such lectures and public meetings only as may be considered by the Principal conducive to their moral and mental improvement.
4. A copy of the regulations shall be sent to all the keepers of lodging houses at the beginning of the session.
5. In case of lodgings being chosen by parents or guardians, a written statement of the parent or guardian shall be presented to the Principal.
6. All intended changes of lodgings shall be made known beforehand to the Principal or to one of the professors.
7. Boarding houses shall be visited monthly by a committee of professors.
8. Special visitations shall be made in case of sickness being reported, either by professors or by ladies connected with the school ; and, if necessary, medical attendance shall be procured.
9. Students and lodging house keepers are required to report, as soon as possible, all cases of serious illness and all infractions of rules touching boarding houses.

## ViI. ACADEMY DIPLOMAS TO GRALUATES.

Granted under the Regu'aions of the Protestan. Committee of the Council of Public Instruction.*
Graduates in Arts from any British or Canadian University, who have passed in Latin, Greek and French in the Degree Examinations, or who have taken at least second class standing in these subjects at their intermediate Examinations, shall be entitled to receive first class Academy Diplomas, provided that they have also taken a regular course in the Art of Teaching at the McGill Normal School, or other public training institution outside of the Province, approved by the Protestant Committee.

Graduates who have not passed in French, as prescribed above, may, on application, be examined in that subject before the Principal of the McGill Normal School, and, if satisfactory,

[^12]such examination shall be accepted in lieu of the prescribed standing in French in the University examinations.

To meet the requirements of Graduates and Undergraduates in Arts, who, not having previously taken a Normal School course, desire to receive Academy diplomas of the first class under regulation 54, provision has been made for the delivery of a course of forty lectures on Pedagogy in the Normal School and for practice in teaching in the McGill Model School for forty half days, open to Graduates in Arts of any British or Canadian University, to undergraduates of the third year, and with the permission of the Faculty and the concurrence of the Principal of the Normal School, to those of the fourth year.

An examination on this course of lectures is held annually on the 20th day of May, or on the school day next succeeding that date ; the hours are from io a.m. to 12 noon.
Undergraduates will be permitted to teach the forty half days referred to above, at times extending over the sessions of the Model School, corresponding to the third and fourth years of their college course. Graduates will be permitted to teach in the Model Schools at such times as may be agreed on with the Principal.

All persons taking this course of study in the Normal School shall be held to be subject to the regulations of the said school, and to be under the supervision of its Principal while in attendance thereat.

Graduates who have taken the above course of study in Pedagogy, and the first class Academy Diploma, may be entered, if so desired by them, in the published lists of the U'niversity as holders of such diplomas.

Undergraduates holding Model School Diplomas in course from the McGill Normal School, who take at least second class standing in Latin and Greek in the Intermediate Examination of the Universities, shall be entitled to receive first class Academy Diplomas.
Any candidate who presents to the Principal of the McGill Normal School (a) the requisite certificates of age and of
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good moral character, according to Form No. I below, and (b) satisfactory certificates that he has complied with either of the foregoing regulations, shall be recommended by him to the Superintendent of Public Instruction for an Academy Diploma.

## FORM OF CERTIFICATE OF CHARACTER TO BE SUBMITTED BY CANDIDATES FOR ACADEMY DIPLOMAS.

" This is to certify that I, the undersigned, have personally known and had opportunity of observing. for the. $\qquad$ last past; that during all such time his life and conduct have been without reproach; and I affirm that I believe him to be an upright, conscientious, and strictly sober man."
This certificate must be signed by the Minister of the Congregation to which the Candidate belongs, and by two School Commissioners, T'rustres or Visitors.

## VIII. NOTES ON THE PRECEDING REGULATIONS.

 Chiefly extracted from the By-Laws of McGill Normal School.(a) On application to the Principal of the School, candidates for admission will be furnished with forms of application, containing the required forms of certificate of good character and of agreement to teach for three years in some Public School in the Province of Quebec.
(b) Teachers-in-training are expected to give their whole time and attention to the work of the school, and are not permitted to engage in any other course of study or business during the session of the school.
(c) There shall be no intercourse between male and female teachers-in-training while in school or when going to or returning from it. Teachers of one sex are strictly prohibited from visiting those of the other.
(d) Teachers-in-training who leave the Normal School in the middle of a session are expected to assign to the Principal satisfactory reasons, accompanied, in case of failure of health, by medical certificates.
(e) The J. C. Wilson prize of forty dollars and a boo'., annually chosen by the donor, shall be given to that teacher-in-training of the Elementary School class who passes for a diploma, and takes the highest aggregate of marks at the final examination of the year.

The Prince of Wales' medal and prize shall be given to that teacher-in-training of the Model School class who passes for a
diploma, and takes the highest aggregate of marks at the final examination of the year.
This year His Honor the Lieutenant-Governor of Quebec offers a bronze medal for competition in the Elementary School class, to be awarded to the student showing greatest proficiency in the French language.
His Excellency the Governor-General gives a bronze medal to the student who passes the best final examination in the Art of Teaching, whether in the Elementary or the Model School class.
( $f$ ) In order to be recognized as teachers-in-training for the .Academy Diploma, students who have fulfilled the conditions stated in the regulations of the Protestant Committee of the Council of Public Instruction, must apply at the beginning of each collegiate year to the Principal of the Normal School for enrolment, and for certificates of enrolment to be presented to the Dean of the Faculty of Arts. Having entered college, they must report to the Principal of the Normal School from time to time, as he may require, and must furnish him with certificates of having successfully passed their several examinations, without which certificates, signed by the Dean of the Faculty or his representative, no bursaries shall be paid. It is held that no student who has passed lower than second class in two of the four subjects, Mathematics, Latin, Greek and French, or who hàs failed in any one of these subjects, has passed "creditably" at any college examination. But in order to secure a first-class Academy diploma and a bursary at the end of the second year, it is necessary to pass in both Latin and Greek not lower than second class at the intermediate examinations. Bursaries not taken at the proper time will not be paid subsequently.
(g) No boarding-house is attached to the Institution, but every care will be taken to ensure the comfort and good conduct of the students in private boarding houses approved by the Principal, who will furnish lists to applicants for admission. Board can be oftaircd at from $\$ 12$ to $\$ 16$ per mon:h.

## IX. COURSE OF STUDY.

N.B.-The subjoined Course of Study has been designed and all instruction in it is given with express reference to the work of teaching.

## i. ELEMENTARY SCHOOL CLASS, STUDYING FOR THE ELEMENTARY SCHOOL DIPLOMA.

Teachers-in-training are admitted to this class after the Christmas vacation on the authority of the Central Board of School Examine's, who take full responsibility for the academic qualifications of those who enter.

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Organization and Discipline.-A course of Lectures.
Teaching.-A course of Lectures on teaching English subjects, and one on teaching French.
Model Lessons.-Given by teachers of the Model School staff, to be reported on in detail by teachers-in-training.

Practice Teaching in the Model Schools.-Under supervision of the Model School staff. These lessons are definitely reported by the supervisors.
Model Lessons.-Given by teachers-in-training to their fellow teachers under the supervision of the Normal School staff.
The final examination leading to the Elementary School Diploma will consist of written and oral examinations on the lecture courses, and the reception of the reports on actual school work done by teach-ers-in-training and observed by the staff of the Normal and Model Schools.
Examination papers will be set only on the lectures given and on school work observed; but the staff of the Normal School will refuse to sign certificates necessary to receiving diplomas if these examinations reveal marked literary deficiencies.
Attendance on some of the lectures given to the Advanced Class will be permitted, especially on those in Elocution, Chemistry, Physiology and Hygiene and Tonic Sol-fa; but examinations in such subjects will not be compulsory.

## 2. ELEMENTARY SCHOOL CLASS STUDYING FOR THE ADVANCED ELEMENTARY SCHOOL DIPLOMA. <br> First Term, from September 2nd to December 23rd.

English.-The structure of sentences. Orthography and Orthoepy. The study of Milton's Allegro, and the Sermon on the Mount, Matt. V., VI. and VII.

Geography.-General view of continents and oceans. North and South America. Eléments de Géographie Moderne.
History.-Outline of general history. Histoire du Canada en Français.
Arithmetic.-Simple and compound rules.
Algebra.-The elementary rules.
Geometry - Elementary notions, with Mensuration.
French:- Darey's Principes de Grammaire Française to page 50, with verbs of first conjugation. Méthode Naturelle. Curtis' Oral Lessons in French.
Latin.-Grammar; a Delectus of Caesar.
Reading and Elocution.
Drawing.-Elements, simple outlines and map drawing.

Music.-Vocal music with part songs. Junior Certificate of Tonic Sol-fa College.
Penmanship and Accounts, Second Term, January 6th to end of Session.
English - Structure of words and sentences. Etymology, derivation and syntax. Study of Macaulay's Essay on Milton and of Goldsmith's Deserted Village.
Geography.-Contour, elevations, river systems, political divisions and chief cities of the old world.
History.-Outline of general history. Sacred. Histuire du Canada continuée.
Arithmetic.-Fractions, Decimals, Proportion, Interest.
Book-keeping.-Single Entry and Penmanship.
Algebra.-Simple Equations of one unknown quantity, with problems.
Geometry.-First book of Euclid, with deductions.
art of Teaching.-Lectures' on School organization, discipline and instruction.
French.-Principes de Grammaire Française, page 100, with verbs regular and irregular. Méthode naturelle.
Latin.-Grammar; Caesar, Gallic War. Book I.
Chemistry.- Lectures.
Physiology and Hygiene.-Lectures.
Reading and Elocution.
Drawing.-Freehand drawing from the solid, and elements of perspective.
Music.-Elements of vocal music and part songs. Elementary Certificate of Tonic Sol-Fa College.
Practice in Teaching in the McGill Model Schools, as directed by the Principal.

Religious Instruction will be given throughout the Session.
In addition to the text-books named above, each Student of the Elementary School Class must be provided with an Atlas of recent date, an Arithmetic, an Algebra and a Euclid.

## 3. MODEL SCHOOL CLASS, STUDYING FOR THE MODEL

 SCHOOL DIPLOMA.Students entering the School in this second year must have passed a satisfactory examination in the subjects of the Elementary School Class. The Class will pursue its studies throughout the Session, without division into terms.
English.-Principles of grammar and composition. Style. History of the English Language. Study of Shakespeare's Tempest, Scott's Lady of the Lake, Tennyson's Lotus Eaters.
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Geography.-Mathematical and physical. Use of the globes.
History.-England, Greece.
Art of Teaching.-Lectures on the principles of education, especially on those derived from the physical, mental and moral nature of the child.
Arithmetic.-Commercial Arithmetic, Logarithms, Properties of Numbers.
Book-keeping.-Double Entry and Penmanship.
Algebra.-Equations of more than one unknown quantity, and quadratics.
Geometry.-Second, third and fourth books of Euclid, with application to mensuration.
Botany.-High School Botany, Spotton.
Latin.-Grammar; Virgil, Aeneid, Book I.
French.-Translation from French into English, and from English into French. Darey's Principes de Grammaire. Eléments de Littérature française, Lectures françaises, Méthode Berlitz, Histoire de France.
Agricultural Science.-Principles, especially chemical and botanical. and application to Canadian agriculture.
Elocution.
Drawing.-Elements of perspective, drawing from the cast and map drawing.
Music.-Instrumental music, part songs and rudiments of harmony. Intermediate Certificate of Tonic Sol-Fa College.

Practice in Teaching.-In the McGill Model Schools, as directed by the Principal.
Religious Instruction throughout the Session.
Such students as, from their conspicuous ability and preparation, may be selected to enter the Academ. Class of the Normal School, will, in addition to the work given above, read Xenophon, Anabasis, Book I., and Caesar, Bell. Gall., Book II., with special attention to Greek and Latin Grammar.
Other students of exceptional ability may, with the consent of the Frincipal and Professors of the several subjects, choose one of the following courses of extra study :-
(a) Mathematics: trigonometry.
(b) Old English.
(c) French : classiques français, composition et grammaire.
(d) Drawing: water-color.
(e) Music: violin.

In addition to the text-books named above, each Student of the Model School Class must be provided with an Arithmetic, an Algebra, a Euclid, and Dawson's Scientific Agriculture.

## 4. CLASS OF KINDERGARTNERS.

Persons who have taken the Advanced Elementary School Diploma, and have the necessary qualifications, especially love of children, a good voice, musical ability, and an engaging manner, may enter the Training School for Kindergartners, and receive Kindergarten Diplomas at the close of their second year of Normal School training.
Kindergartners will be employed in the practical work of the kindergarten during the forenoon of each school-day, and will follow a selected course of practical and professional training every afternoon.
Among the subjects taken in the afternoons will be mother play. gifts, occupations, clay modelling, nature lessons, games and songs, drawing, music, French, psychology of the child, history of education and art of teaching.

## 5. ACADEMY CLASS, STUDYING FOR THE ACADEMY DIPLOMA.

Will follow two years the course of McGill University and its affiliated colleges, or that of Bishop's College, Lennoxville, being enrolled on the Books of the Normal School, and receiving a bursary from the Normal School, not exceeding $\$ 30$ per annum, and such tutorial assistance as may be deemed necessary. Such Students must take in their courses such options only as are approved by the Principal of the Normal School.
The course for the current year in the McGill College, and in Bishop's College, may be learned by application to W. Vaughan, Esq., McGill College, Montreal, or to Rev. Principal Adams, D.C.L., Bishop's College, Lennoxville.

## SYLLABUS OF LECTURES ON PEDAGOGY (Open to Graduates and Undergraduates.) <br> The legal Position of the Teacher.

I. The organization of Public Instruction in Quebec. 2. The relation of the teacher to the Department of Public Instruction, and to the Protestant Committee of the Council of Public Instruction. 3. The relation of the teacher to school commissioners and parents. 4. The relation of the teacher to pupils. 5. The teacher as a membe: of a profession.

## Discipline.

6. Discipline as a means of immediat pleasure to pupils. 7. Discipline as tending to school success. 8 Discipline as a preparation for life. 9. Discipline developing character. 10. Discipline enforced by authority.
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11. English reading, writing, grammar. 12. Literature, composition. 13. French. 14. The classics. 15. Number; arithmetic and algebra. 16. Form ; geometry. Number and form ; trigonometry and mensuration. 17. Geography and history. 18. Botany and chemistry. 19. Drawing and music. 20. The acquisition of general knowledge.

## Physical Development.

21. Health. 22. Growth. 23. The training of the eye. 24. The training of the ear. 25. The training of the hand.

Mental. Development.
26. The training of the analytic faculty. 27. Observation and experiment. 28. The training of the synthetic faculty. 29. Understanding. 30. Judgment and reason. 31. Invention. 32. Imagination. 33. Memory of sensations. 34. Memory of conceptions. 35. Ve:bal memory.

Moral Development.
36. Training in truthfulness. 37. In justice and purity. 38. In philanthropy and patriotism. 39. In earnestness. 40. In good manners.

> MODEL SCHOOLS OF THE McGILL NORMAL SCHOOL.

> Boys' School -Orrin Rexford, B. A. Sc., Head Master. Elizabeth Reid, Assistant.
> Girls' School.-Mary I. Peebles, Head Mistress. Ethel Stuart, Gertrude Blackett, $\}$ Assistants. Primary School-Selina F. Sloan, Hcad Mistress. $\left.\begin{array}{l}\text { Annie L. Woodington } \\ \text { Clara L. Douglas, }\end{array}\right\}$ Assistants. Louise Derick, Kindergarten.

These Schools can accommodate about 400 pupils, are supFlied with the best furniture and apparatus, and conducted on the most modern methods of teaching. They receive pupils from the age of four and upwards, and give a thorough English education. Fees :-Boys' and Girls' Model Schools, $\$$ r.00 to $\$ 1.50$ per month ; Primary School and Kindergarten, 75 c.; payable monthly in advance.

## Alluiversity sthool Cxaminations,

## 1898.

## FOR CERTIFICATES OF THE UNIVERSITIES AND THE TITLE OF ASSOCIATE INEARTS.

Held under the Superintendence of McGill University, Montreal, and the University of Bishof's College, Lennoxville; and recognized by the Protestant Committee of the Council of Public Instruction.
These Examinations are held in Montreal and at Lennoxville ; and local centres may be appointed elsewhere on application to the Principal of either University, accompanied with ,the names of satisfactory Deputy Examiners, and guarantee for the payment of necessary expenses.

The Examinations are open to Boys or Girls from any Canadiar school.

## PART I.-ORDINARY A.A.

## SUBJECTS OF EXAMINATION.

I. Preliminary Subjects.

## Writing.

## English Dictation.

English Grammar, including Easy Analysis.
A Short Essay on a subject to be given at the time of the Examination.

Arithmetic (all the ordinary rules, including Square Root and a knowledge of the Metric System).

Geography (acquaintance with the maps of each of the four continents, and of British North America).

British History and Canadian History.
New Testament History.* (Gospels and Acts, as in Maclear).

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## Latin :-

II. Optional Subjects.

## Section 1.-Languages.

Caesar.-Bell. Gall., Bks. I. and II. Virgil.-Aeneid, Bk. I. Latin Grammar. $\left.\begin{array}{l}\text { Translation at sight and Prose Composition, } \\ \text { both based on the prescribed prose text. }\end{array}\right\} 200$ marks.
Greek :-
Xenophon.-Anabasis, Bk. I.
Greek Grammar.
$\left.\begin{array}{c}\text { Translation at sight and Prose Composition, } \\ \text { both based on the prescribed Prose text. }\end{array}\right\} 200$ do
French :-
French Grammar.
Easy translation, from English into French, ) and from French into English. $\} 100$ do
The reproduction in French of an easy narrative read in English.

## German :-

Grammar.-Vandersmissen's Accidence and
Syntax, especially the Accidence, including
English German Exercises. An equivalent
amount of Grammar and English-German
translation from any good manual will be
accepted in place of Vandersmissen.
Joynes' German Reader.

## Section 2.-Mathematics.

## Arithmetic :-

As required for Model School Diploma. All ordinary commercial rules, fractions of greater complexity, circulating decimals, cube root, the mensuration of rectangles, circles, rectangular prisms, rectangular pyramids, cylinders, cones, spheres, and all such figures as can be resolved into or referred to these elements. The use of six figure Logarithms.. .. .. .. .. .. .. .. .. .. .. .. .. . 100 do

Geometry :-
Euclid, I., II., III., with easy Deductions.. .. 100 du

## Algebra :-

Elementary Rules, Involution, Evolution, Fractions, Indices, Surds, Simple and Quadratic Equations of one or more unknown quan-
tities.

## Plane Trigonometry :-

(As in Hamblin Smith, pp. 1-100, omitting Ch. Ioo do XI.)

## Section 3.-English.

The English Language :-
Meiklejohn's English Language, Parts, I., II., $\} 100$ do
III.
Trench's Study of Words.
English Literature :-
Meiklejohn's English Language, Pt. IV. Shakspere's Richard II.
Scott's Lady of the Lake.
History.-(as in Primers of Greece and Rome, and Collier's Great Events)

100 do
Physical Geography:-Hinman's Eclectic Physical Gec-
graphy is recommended .. .. .. .. .. .. .... 100 do
Section 4.-Natural and Physical Sciences, etc.

Botany* (as in Spotton's High School Botany, with Penhallow's Guide to the Collection of Plants, and Blanks for Plant Descriptions $\dagger$ ). Io do
Chemistry (as in Remsen's Elements of Chemistry,
pp. I to 160 ). .. . .. .. . . . . . . .. . 100 do
Physiology and Hygiene (as in Cutter's Intermediate.). . . .. .. .. .. .. .. .. .. .. .. 100 d
Physics (as in Gage Introduction to Physical Science) (Chapters I., II., III., IV. and V.). .. . . .. .. 100 do
Geometrical and Freehand Drawing. . .. .. .. .. .. 100 do

* In connection with the Botany examination. marks will be given for collections of * In connection with the Botany examination, marks will ge given for collection of Plants. The Head Teacher of each school will forward with the answers a specimen Plants. The Head Teacher of each school will forward with the answers a specimen the colllections made. Not more than 50 specimens will be expected to constitute a collection, and marks may be allowed pro rata for fewer.
$\dagger$ These Blanks may be obtained from booksellers in Montreal or elsewhere.

3. Candid subject, unls number of $r$
4. The to Optional sul in order of those who al a separate 1 l the Candidat
5. Candid: any Optional ably in that in the Associ
6. Candidi culation Exa Faculties of
7. Candida completing tl without extra
[^14]Geometrical.-Vere Foster RI and R2, also problems 119 to 129 of $\mathrm{R}_{3}$, or McLeod's Geometrical Drawing.

Freehand.-Rules of Perspective, Drawing from the object (as in the Dominion Freehand Drawing books, numbers $I$ to 5 , inclusive).

## REGULATIONS.

I. To obtain the Certificate of Associate in Arts, Candidates must pass in all the Preliminary subjects, and also in any six of the Optional subjects, provided that the six include one subject at least from each of the four Sections.
2. In addition to the six Optional subjects selected for passing, Candidates may take other Optional subjects, but the total possible number of marks obtainable in all the Optional subjects chosen must not exceed iooo.
3. Candidates will not be considered as having passed in any subject, unless they have obtained at least 40 per cent. of the total number of marks obtainable in that subject.*
4. The total number of marks gained by every Candidate in the Optional subjects shall be added up, and the Candidates arranged in order of merit in a printed list at the close of the Examination, those who are over 18 years of age on the first day of June being in a separate list. The marks in any subject shall not be counted if the Candidate has obtained less than 40 per cent. in that subject.
5. Candidates who obtain at least 75 per cent. of the marks in any Optional subject shall be considered as having answered creditably in that subject, and special mention of the same will be made in the Associate in Arts Certificate.
6. Candidates who pass in the subjects of the University Matriculation Examinations may, without further examination, enter the Faculties of Arts and Applied Science. (See Note 2 infra.)
7. Candidates who fail, or who may be prevented by illness from completing their examination, may come up at the next examination without extra fee.

[^15]8. Candidates who pass in all the Preliminary subjects may, at any subsequent examination, take the Optional subjects only, and without extra fee.
9. The Head Master or Mistress of each school must certify to the character and ages of the pupils sent up for examination.
10. The examinations will begin on Monday, May 3oth, at 9 a.m.
ir. Lists of the names, ages, and Optional subjects to be taken by the Candidates, together with a fee of $\$ 4$ for each Candidate, must be transmitted to the Secretary, McGill University, Montreal, on or before April 3oth. (Blank forms and copies of the regulations will be furnished on application.)

Note 1 .-No fees will be exacted for the examination of pupils of Academies under the control of the ;Protestant Committec ; but in order to obtain the certificate from the Universities, the prescribed fee, viz., $\$ 4$, must be paid to the Secretary of the University Examiners.

Candidates who pass Grade II of the Academy Ccurse of Study will be exempted from the Preliminary Subjects of the A. A. Examination.

The answers must be written in the answer book, specially made for the purpose, under, the direction of the Board of Examiners.

The complete regulations of the Protestant Committee of the Council of Public Instruction with reference to these examinations may be obtained on application to the English Secretary, Department of Public Instruction, Quebec.

NOTE 2.-MATRICULATION SUBJFCTS REFERRFD TO IN REG, 6.
In Arts.-(1) Latin or Greek ; (2) Geometry ; (3) Algebra ; (4) Arithmetic ; (5) English Grammar; (6) English Dictation ; (7) British History ; (8) English Literature ; (9) Greek or Latin (if not already taken), or two Modern Languages ; (io) Botany or Chemistry.

In Applied Science.-Geometry (Euclid, Bks. I. to IV.. VI., and definitions of Bk. V.), Algebra, Trigonometry, Arithmetic, English Dictation, Composition, English Grammar, British History, English Literature, and one Language, viz., Greek, Latin, French or German.
(Matriculation Examinations are also held at the opening of the University Session in September. See Calendars of the Universities.)

Latin :-

Greek :-
Xeno
Homs
Gram

French :-
Lama
Moliè
Trans

Gramı
German :-
Lessin
Schille
Gramı

Geometry :-
Euclid
Algebra:-
To the

## Trigonometry

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ecially made kaminers.
littee of the examinations tary, Depart-

REG. 6.
Algebra ; (4) ictation ; (7) or Latin (if ) Botany or
[V.. VI., and retic, English tory, English :h or German. pening of the the Univer-

## PART II-ADVANCED A.A.

SUBJECTS OF EXAMINATION. I. Preliminary Subjects.

As under Part I.
iI. Optional Subjects.

Section 1.-Languages.
Latin :-
Virgil.-Aeneid, I.
Cicero.-In Catilinam, I. and II.
position, Parts III. and IV.), and Translation at sight from
Caesar and Nepos.
Grammar, Prose Composition (Collar's Practical Latin Com-
Greek :-
Xenophon.-Anabasis, I. and II.
Homer.-Illiad, IV., and Odyssey, VII.
Grammar and Prose Composition (Abbott's Arnold's Greek Prose Composition, Exercises 1 to 25).

French :-
Lamartine, Jeanne d'Arc.
Molière, Le Bourgeois Gentilhomme.
Translation at sight from French into English, and from English into French.
Grammar and Dictation.

## German :-

Lessing, Emilia Galotti.
Schiller, Der Kampf mit dem Drachen.
Grammar and translation from English into German.

## Section 2.-Mathematics.

Geometry :-
Euclid, Bks. I. to IV., Defins. of Bk. V., Bk. VI.
Algebra:-
To the end of Progressions.
Trigonometry :-
As in Hamblin Smith (the whole).

## Section 3.-English.

## The English Language :-

Lounsbury's History of the English Language.
Mason's English Grammar.
A Composition.

## English Literature :-

Meiklejohn's English Language, Pt. IV.
The Elizabethan Period (Morley's First Sketch). Milton's Paradise Lost, Bks. I. and II.

## History :-

Grecian History.-The Persian and Peloponnesian Wars.
Roman History.-From the Wars of Marius and Sulla to the death of Tiberius.
English History.-The Reformation and Puritan England, as in Green's Short History.

## Section 4.-Natural and Physical Sciences, etc.

Botany :-Gray's Text-Book.
General Morphology and Classification, Determination of Canadian Species, exclusive of Thallophytes. Distribution of Orders represented in Canada.
Credit will be given for collections of plants as under Part I.
Chemistry :-Inorganic, as in Remsen's Elements.
Also, an examination in Practical Work (to be held only in Montreal and at Lennoxville).

Physics :-As in Gage and Fessenden's High School Physics.
Also, an examination in Practical Work (to be held only in Montreal and Lennoxville).
Drawing :-Orthographic Projection, including Simple Penetrations, Developments and Sections, as in Davidson's Orthographic Projection.

## REGULATIONS.

The Regulations of Part I., with the following modifications and additions, will apply to the advanced subjects :-
I. Candidates who pass in six of the advanced subjects including one at least from each of the four Sections) will receive an

Advanced A. A. certificate. The number of marks given to each subject will be the same as in Part I., and additional advanced subjects may be taken as in Reg. 2, Part I.
2. Candidates who fail in one or more of the subjects required for the advanced A. A. may, on the recommendation of the Examiners, be given an ordinary A. A. certificate.
3. The examinations in the adyanced subjects will be held at the same time and in the same manner as those in the ordinary subjects. They will be open to all who have already passed in the preliminary subjects, whether they have taken the ordinary A. A. or not. The preliminary subjects must be taken either one or two years before the advanced subjects.
4. Candidates who pass the advanced examinations in Greek, Latin, Geometry, Algebra, and English Language* shall be considered as having passed the Higher Matriculation Examination of the First Year in Arts, McGill University.
5. Candidates must, before April 3oth, give notice of intention to present themselves for the examination, specifying the optional subjects in which they wish to be examined.
6. The ordinary fee of $\$ 4.00$ must be paid before taking the preliminary subjects, and an additional fee of $\$ 10$ at the time of making application for the advanced examinations $\dagger$ A Candidate who fails to pass the Advanced A. A. Examination shall be required to pay a fee of $\$ 5$ for every subsequent Advanced A. A. Examination at which he may present himself.

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SUCCESSFUL CANDIDATES

RESULTS OF EXAMINATIONS, 1897.
ADVANCED ASSOCIATE IN ARTS.
No.
1 Joseph A. Copeman (Quebec, H.S.),
. 3 William Walford (Westmount Academy),
associates in ar'ts.

1. Under 18 Years of Age.

87 Alan Radford (Abingdon School),
143 Catherine Cushing Barron (Lachute Academy),
40 Frederick James Tees (Montreal High School),
166 Essie M. Smith (Quebec Girls' High School),
35 William James Scott (Montreal High School),
44 Mabel Charlotte Armstrong (Montreal Girls' High School), 779
${ }_{15}$ Robert James Harper (Montreal High School), 774
91 Isabel Radford (Miss Symmer's and Mıss Smith's), 755
90 Emily Hilda Butteris (Miss Symmer's and Miss Smith's), 750
19 Frederick B. Lima, (Montreal High School), 733
45 C. Winifred Bennett (Montreal Girls' High School), $73^{2}$
60 Evelyn Molson (Montreal Girls' High School), 730
42 Henry S. Williams (Montreal High School), 718
${ }_{13} 6$ Ida Robson (Huntingdon Academy), 715
34 John Alfred Ryan (Montreal High School), 696
30 Shirlev Ogilvie McMurtry (Montreal High School), 692
144 Marion Kenmure Barron (Lachute Academy), 687
20 Percy W. Ward (Montreal High School), 680
204 Lulu J. Roderick (Victoria Girls' High School, St John, N.B.), 675
145 Beatrice Maud Caron (Lachute Academy), 671
16 Norman C. E. Holland (Montreal High School), $66_{3}$
164 Ella M. Fraser (Quebec Gırl,' High School), 659
55 Hilda Mabel King (Montreal Girls' High School), 658
29 Gordon Ogilvie McMurtry (Montreal High School), 652
209 Daisy Isabella Lawrence (Waterloo Academy),

Marks.


| No. |  | Marks. |
| :---: | :---: | :---: |
| ${ }^{1} 55$ | Walter Childs Bazin (Ormstown Model School), | 498 |
| 107 | Louis Mackie (Cookshire Academy), | 495 |
| 6 192 | Hugh D. Caineron (Montreal High School), Lucy Winifred Terrill (Sherbrooke Academy), | 493 |
| 134 | Emma J. Neville (Huntingdon Academy), | 491 |
| 220 | Horace Brodie (Westmount Academy), | 488 |
| 101 | Jeannie Macauley (Compton Ladies' College), | 485 |
| 66 | Bertha Campbell Tomkins (Montreal Girls' High School), | 467 |
| 223 | Leonard McBean (Westmount Academy), | 466 |
| 48 | Daisy Welhelmina Day (Montreal Girls' High School) | 465 |
| $\begin{array}{r} 95 \\ 198 \end{array}$ | $\left.\begin{array}{l}\text { Edwin Batcheller (Bedford Academy } \\ \text { Ethelwyn Crossley (Three Rivers Academy }\end{array}\right\}$ equal | 457 |
| 208 | May Elouise Gould (Waterloo Academy), | 455 |
| 52 | Elma Eliza Gosling (Montreal Girls' High School), | 454 |
| 49 | Elizabeth Dougal (Montreal Girls' High School), | 450 |
| $\begin{array}{r} 71 \\ 184 \end{array}$ | $\left.\begin{array}{l}\text { Elizabeth Wright (Montreal Girls' High School), } \\ \text { Grace Emily Channel (Sherbrooke Academy), }\end{array}\right\}$ equal | 449 |
| $\begin{array}{r} 64 \\ 160 \\ 180 \end{array}$ |  | 446 |
| 4 | J. Archibald Bennett (Montreal High School), | 442 |
| 182 | Allan Peter Blue (Sherbrooke Academy), | 426 |
| 185 | Erwin Archie Duke (Sherbrooke Academy), | 424 |
| 68 | Mildred Edith Winters (Montreal Girls' High School), | 42 I |
| 104 | Leslie Bishop (Cookshire Academy), | 411 |
| 98 | Albert M. Pattison (Clarenceville Model School), | 399 |
| 212 | Gertrude Emma Neill (Waterloo Academy), | 396 |
| 120 | Agnes Bickerdike (Dunham Ladies' College), | 381 |
| 17 | George Hunter (Montreal High School), | 379 |
| 218 | Bernice Adelaide Whitehead (Waterloo Acaders y), | 378 |
| 150 | Sarah Crawford (Lennoxville Model School), | 373 |
| 39 | Fred M rrray Smith (Montreal High School), | 372 |
| 125 | James C. Kay (Granby Academy), | 361 |
| 126 | John E. Runnels (Granby Academy), | 359 |
| 221 | Jennie Hood (Westmount Academy), | 355 |
| 56 | May Agnes Ker (Montreal Girls' High School), | 352 |
| 12 | Percy Gomery (Montreal High School), | 348 |
| 227 | Nancy C. Archibald (Roslyn College, Mont eal), | 334 |
|  | II. Over 18 Vears of Age. |  |
| 132 | John R. McEwen (Huntingdon Academy), | 853 |
| 131 | Norval Dickson (Huntingdon Academy), | 840 |
| 216 | Norman Walter Strong (Wateıloo Academy), | 708 |
| 5 | Albert Victor Brown (Montreal High School), | 693 |
| 187 | Emma Maud Giff (Sherbrooke Academy), | 656 |
| 92 | John Chapman Seaman (Sabrevois College), | 654 |
| 147 | Beatrice Elizabeth Robertson (Lachute Academy), | 516 |

Marks. 498 495

No.
165

392
95 Harold R. Crothers (Clarenceville Model School), 314
171 Jessie Kellock (St Francis College Schosl), 306
106 Phoebs Learned (Cookshire Academy),

## PASSED THE PRELIMINARY SUBJECTS.

(In order of numbers.)
28
$23 \mathbf{1}$

247
256
269
279
257
296
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$\mathbf{3 2 1}$
332
347
358
368
54
232
240
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270
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352
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369
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233
241
250
259
272
281
289
298
307
315
323
340
353
360
370

| 123 | 163 |
| :--- | :--- |
| 234 | 235 |
| 243 | 244 |
| 251 | 253 |
| 260 | 261 |
| 273 | 274 |
| 282 | 283 |
| 291 | 292 |
| 300 | 301 |
| 308 | 309 |
| 316 | 317 |
| 324 | 326 |
| 343 | 344 |
| 354 | 355 |
| 363 | 364 |
| 372 |  |

172
237
245
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246
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311
320
331
346
357
366

McGILL UNIVERSITY, MONTREAL.
June, 1897.
The following Candidates have passed the Examinations required for Entrance.

## 1. In Arts and Medicine.

| Arinstrong, Mabel C., | Montreal | McEivan, John R., | Huntingdon, 0 |
| :---: | :---: | :---: | :---: |
| Barron, Catherine C., | Lachute, Q | McLaren, T. Orton, W | Williamstown, Q |
| Bourne, James H., | Brigham, Q | McLeod, May, | Westmount, Q |
| Brown, Albert Vict | Montreal | MeMurtry, Gordon 0., | Montreal |
| Budden, Jessie, | Montreal | Mc.Murtry, Sherley 0., | Montreal |
| Budden, Ellen M., | Montreal | Neville, James, | Huntingdon, Q |
| Butteris, Emily H., | Montreal | Noyes, Emily M., | Montreal |
| Chandler, Ernest C., | Montreal | Patterson, Kate G., | Montreal |
| Cotton, Wm. U., | Sweetsburg, Q | Price, Llewellyn, St | St. Catherines, 0 |
| Cole, George P., | Montreal | Radford, Alan, | Montreal |
| Copeman, James H | Quebec | Radford, Isabel, | Montreal |
| Day, Daisy W., | Montreal | Robertson, Wm. G., | Montreal |
| Dickson, Norval, | Huntingdon, Q | Ryan, John A., | Montreal |
| Fraser, Ella M., | Quebec | Scott, Wm. James, | Montreal |
| Harper, Robert James, | Montreal | Scrimger, Francis A. C., | ., Montreal |
| Harris, Spencer L. D., | Ottawi, 0 | Smitb, Essie M., | Quebec |
| Le Maister, Lily, | Westmount, 0 | Stevenson, Isabella, | Danville, Q |
| Hampson, Edward G., | Almonte, 0 | Strong, Norman W., | Waterloo, Q |
| Lomer, Elfrida, | Montreal | Tees, Fred. James, | Montreal |
| Macker, Louise, | Cookshire, Q | Viner, Norman, | Montrea! |
| Moe, Charlotte S., | Ormstown, Q | Warriner, Jessie E., | Montreal |
| Moffatt, Charles F., | Montreal | Watson, Hugb, | Brigham, Q |
| Molson, Percival, | Montreal | White, Roderick, | Huntingdon, Q |
| Molson, Evelyn, | Montreal | Williams, Hy. S., | Montreal |

## 11. Medicine,

Babcock, John R., Buckman, Allan, Hepburn, James de C., Kennedy Daniel W, Wil Picton, 0 Mackenzie Stewsrt Donald, Stown, 0

McDougal, Daniel W., Williamstown, 0 Niven, Knox James,
Rogers, H. B.,
Ross, Herbert

London, 0
Vancouver, B.C. Williamstown, 0

## 111. In Applied Science.

> Askwith, Chas. A. E., Bazin, Walter Childs, Boyd, H. H., Burchell, Geo. B., Cameron, Hugh D., DeBlois, Wm. H.,
> Edgar, John Hamilton, Egleson, Jas. E., Gagnon, Edmund Ernest, Glasscoe, Archie P. S., Hale, John Lorne, Harrison, Wm. M., Higman, Ormand,

Ottawa, 0 Ormstown, Q Montreal Oitawa, 0 Montreal Halifax, N.S. Montreal Ottawa, 0 Montreal Hamilton, 0 Pembroke, 0 Pembroke, 0 Ottawa, 0

> Hunter, Frank,
> Labatt, John S.,
> Meyers, Henry, Morley, Reginald W. Norseworthy, Edward C., Ogilvie, Paul, Shearer, Frank, Ta.lor, Chas. W. Tupper, Charles, Walsh, Wm., Ward, Clarence R., White, Gerald V.,

Huntingdon, Q Loedon, 0 Ormstown, Q Toronto, 0 Toronto, 0 Ottawa, 0 Huntingdon, Q Verschoyle, 0 Ottawa, 0
Ormstown, Q
Stratford, 0 Pembroke, 0
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three-four: at least $f$ High Sche Boys' Hi and 371 ; Misses Ga College, 92 Model Scl Cookshire 117 ; Dunh School, 12 i Academy,
to :51 incl
Ormstown
Girls' Hig
Francis' Ci
Academy, Academy,
Rivers Ac
to 204 inclu: 228 ; Prospe
Greek.-1
138, 164, 43
Advanced
French.-
(144, 181),*
(120, 175, 21
46, 179, 201
(50, 70, 92,
171, 182, 19 !
150, 178, 19
Advanced
Latin.-13
27, 5, 46,
70, 201), (85
$62,179(43,61$
114,165 , ( 10
197), (59, 69,

198, 199, 208,
(Advanced
Optional 1 201,** 96, (14

Optional C 202), (15, 3', 194, 211), (7, 87, 197, 221 9 , 98, $108,1_{4}$ $(30,159),(88$,
$74,151,168)$ $83,93,106)$,

## STANDING IN THE OPTIONAL SUBJECTS.

[The numbers correspond with those in the preceding lists. Candidates whose numbers are in parentheses are equal in standing. Those preceding a single asterisk have obtained at least three-fourths of the marks; those preceding a double asterisk, at least one-half; those following at least forty per cent. The numbers of the Schools and Candidates are as follows . Quebec High School 1 and $352-358$, inclusive ; Westmount Academy, 2 and 3 and $2 \mathrm{r}_{j}-\mathbf{2 2 6}$ inclusive ; Boys' High School, Montreal, 4.43 and 229.300•372; (Girls') High School, $44 \cdot 71$ 301•328 and 371 ; Montreal Collegiate Institute, 72-84; 329-337; Abingdon School, $85-88$ 338-342 ; The Misses Gairdner, 89 ; Miss Symmers' and Miss Smith's, 90 and 91,343 and 344 ; Sabrevois College, $9^{22}$, 345, $34^{6}$; Aylmer Academy, 93 and 94 ; Bedford Academy, 95 ; Clarenceville Model School, 96 to 98 ; Coaticook Academy, 99 and 100 ; Compton Ladies' Academy, 101 ; Cookshire Academy, 103 to 109; Cowansville Academy, ioto 112 ; Danville Academy, It3 to 117 ; Dunham Ladies' College, 120 to 124; Granby Academy, 125 and 126 ; Haldimand Mode School, 127 ; Huntingdon Academy, 129 to 138 ; Inverness Academy, 139 and 140 ; Knowlton Academy, 141 ; Lachute Academy, 143 to 148 inclusive: Lennoxville Moael School 149 to :5I inclusive; Magog Model School, $15^{2}$; New Westminster High School, 153 ; Ormstown Model School, 154 to 161 inclusive; Paspebiac Model School 162; Quebec, Girls' High School, 163 to 166,359 to 367 ; Rawdon Model School, 167; St. Francis' College School, 168 to 174 inclusive; Sawyerville Model School, 175 ; Shawville Academy, 176 and 178 ; Stanstead Wesleyan College, 179 and 180; Sherbrooke Academy, 181 to 194 inclusive; Sutton Academy, 195 to 197 inclusive; Three Rivers Acacdemy, 198 and 199; Victoria Girls' High School, St. John N.B., 201 to 204 inclusive ; Waterloo Academy, 205 to 218 inclusive ; Roslyn College, Montrenl, 227 and 228 ; Prospect Academy, 368 ; Trafalgar Institute, 370.

Greek. $-13^{2}, 5,15, * 40,131,34,4^{2}, 166,216,(35,70),(27,77), 30,36,29,87,135,7,24$, $138,164,43,143,(25,223)(39,48),(179,217,26,(8,80,220), 165,116,158,170,167,146,117$. Advanced A.A. $1,3^{* *_{2}}$
French.-91, 90, 107, 132, 30, (21, 42, 143), 20, 166, (5, 40), 34, (44, 62), 35, 163, ( 144,181 ),* (121, 131), (51, 78, 193), ( 15,87 ), ( $10,126,158),(43,59,155), 117,68$, $(120,175,209),\left(8,28,58,19^{2}, 197,199\right),(55,227),\left(3^{2}, 47,148,210\right),(89,145,222),(20$, $46,179,201),(10,19,52,98,109), 25,203,(45,136,164,224),(9,16,38,72),(17,159), 204$, ( $\left.50,70,9^{2}, 108,194\right),(6,48,53,59,135,138,170,202)$, (101, 106), ( $33,54,56,97,124,125,123$, ${ }_{171}, 182,198$ ) ** ( $\left.7,23,24,176,189\right),(12,85,152),(18,127,208,221),(36,110,129,185),(13,137$, $\left.{ }_{150}, 178,190\right)$, 130, (22, $31,86,168,180$, 188), (104, 173), (205, 216), (41, 66, 95, 96).
Advanced A.A. I**.
Latin.-131, (35, 132), (40, 44), 45, 143,* 15, 55, (90, 166), 20 24, 87, (42, 60), $27,5,46,145,(30,77,91),(19,92), 1672_{3}, 202,(117,209), 9.16,187,(66$, $70,201),(85,216), 204,(50164),(144,210),(8,39), 138,52,29,(37,68,152), 208,(86,95)$, $62,179\left(43,6 \mathbf{1}, 135,180,192\right.$ ) *** $(33,58,146),\left(18,{ }^{24}, 190\right), 101,\left(32,36,3^{8}, 189,220,(7,158),(10,47\right.$ 114,165 ) $(108,170)(51,147,212),(2580),(207,222,224),(113,153,217),(21,26,207,121),(15$, 197), (59, 69, 211, 218), (28, 98, 116), (4, 4), 48, 63, 64, 70, 73, 97, 103, 109, $120,160,176,134$ : 198, 199, 208, 203, 206, 223),
(Advanced A,A. $\mathbf{1}$, 糢3.)
Optional History. $-175,87,85,204,179, * 202,91,92,180,97,(86,198), 104,203,101,184$, 201,** 96, (149, 227), 141.

Optional Geography.--166, 35, $(27,37), 43,9,136,(18,24), 8,(85,87,143),(13,40,104,165$, $\left.{ }_{202}\right)$, (1玉, 31, 181, 195), (29, 32, 217, 222) \% 10 , (20, 24, 42, 215), (5, 22, 36, 90, 216), (25, 163, $194,211),(7,17,97,170,209,225),(19,3 c, 1 c 9,220,223),(6,32,55,96,98,205),\left(26,3^{6}, 155\right.$, 187, 197, 221), (12, 2?, 92, 95, 185, 204), (137, 226), (100, 191, 213, 218), (16, 86, 158, 203), (11, $89,98,108,144,145,201),(21,129,189),(39,147,171,210),(81,103,162),(441,80,182),(58$, $\left.{ }^{130}, 159\right),(88,157,212),(14,72,22,183,193,224),(148,184,192,214,219),(133,186,190,208)$,
 $\left.183,93,106),(134,167,206),\left(17^{2}, 17^{8}\right),(72,207),(6), 174\right)$.

Optional Arithmetic－87，164，143，210，209，213，217，136，78，150，205，147，（133，143），（181， 225,226 ），䊉 $216,149,207,194, ~(1 \subset 8,144,195), 215,(134,137),(95,174,212), 146,182$ ， （208，218），157，140， 171 ，䉼（24，130），214，185，（129，156），（ 160,187 ），89，139，（86，184，193，196， 211），（85，100，175，219）．

Geometry．$-87,(40,166), 165,131,20,(44,86,204,213), 30,(175,216),(38,209)$ ， $(35,210),(19,34), 45,(164,205),(15,33,60,202),(8,29,42,90,212),(5,97$ ， 121，193），220，（203，217），（85，113，167，226），\％（23，225），（18，24，187，221），（36，39，104，132， 222），（91．130，207）．（25，108，145），（11，27，137，143，197，208），（68， 779,201$),(6,41,69,78,136$ ， 211，218），（32，106，107，114），（13，62，92，111，135，144，147，159，189，194），（101，129），（70，153， $\left.{ }^{176}, 223\right),(46,52,65,77,18 \mathrm{r}),(7,50,61,80,115,170,180),(100,134,138,198,206),(16,47$, $116,163,224),(9,149,161,182),(58,89,99,158,174),(125,141)$ ，（31，195），（56，73，81，98， $126,155),(54,94),(4,26,43,156),(21,184,185,192)$ ，淃 $(96,103),(10,49,160,214),(146,162$ ， $\left.{ }_{168}, 169,190\right),(17,64,188), 95,\left(14,14^{\circ}, 151,157\right),(12,67,71,93,228),\left(22,37,4^{8}, 51,109,120\right.$ ， 122，133，139，150，152，r71，219．）
（Advanced A．A．）－ $\mathbf{1}^{2}, 2,3$ ，＊
German．－222，63，90，（46，91，227），（44，58，107），60，＊＊225，47，224，（62，121，226）．
English Language．－（Advanced A．A．）92，＊91，44，204，51，51，50，60，58，90，46，（47，89）， $(52,55), 6 \mathrm{I}, 64,203,45^{* *} 70,(57,68), 69,(48,71),(49,62,202), 63,59,66,56$.

English Literature．$-41,143,87,32,(55,222),(91,121),(89,132,192),(9,54)$ ， $(92,166),(15,47,58,144,145),{ }^{*}(7,179), 35,(48,194), 71,(146,148),(16,45189),(23$, $\left.25,27,34,36,4^{0}, 59,204\right),(5,50),(51,180),\left(10,3^{8}, 116,131,136,158\right),(16,224),(162,170$, $195,202,227),(4,18,49,57,16,175),(49,138,176,220),\left(8,4^{2}, 60,108,109,193,217\right), 24,3^{1}$ ， $33,46,70,125,185,197,225),(43,85,114,198,223),(56,137,139,147,155),(20,61,80,97,113$, $\left.{ }_{161}, 184\right)$ ，（11，86，104，135，164），（21，64），（62，69，93，203），（117，134，159，163），（12，39，53，63， $68,187)^{* *}(66,81,106,140,160,171,208,221),(13,17,30,129),(14,96,152),(6,26,99,226$ ；， （101，219），（29，107，201），（28，115），（37，5），122，124，211），133，（41，65，78，82，95，120，127，130， 209，210）．
（Advanced A．A．）2， 3 ．
Physiology and Hygiene．－（13r，132，135），129，（136，137），（138，209），216，（113，205），217， （187，194），（166，208），（13，114，124，130），189，（31，134，162），＊（103，160，197），（158，192），（146， 210），（156，181），（179，195，211，215），（71，139，155，212），（116，143，157，198，213），（89，101，225）， $(147,184,186,214),(96,97,148,135), 117,(104,125,133,193), 218,(182,183,190),(108,163$ ， 226），（93，115，145，159，171，175，224），（78，92，144，219），（98，100 152，164），（111，141，221）， $(65,94,106,149,150,206),(127,165,223,227) * * 183,(126,173),(107,168,196), 161,12,{ }_{3} 33$, $140,174,220),(95,151,153), 99,170,172,178,222), 103$
Chemistry．－$(16,19), 58,44,45,(20,55),(6,8,60),(3 \mathrm{r}, 216),(18,67), 32^{*},(17,201),(9,41,46$ ， 57），（7，11，28，33，57，87），（10，22，203），（4，14，23，37），（38，202），15，（21，50，86，204），（12，64），66， （ $13,49,56,71,85),(6 \mathrm{r}, 114), 63, * * 62,(53,97), 69$ ．

Pinysiss．－40，87，（34，180），19，181，（3），115），（16，20，113），＊＊35，（18，37），（86，116，216），42，（9， $\left.3^{1}\right)$ ，（6，36），（5，7，10，11，13，24，25，32，43，114）．

Drawing．－225，40，19，＊226，（35，144），145，147，60，67，（29，58，62），23，$(8,47)$ ， $61,(25,45,65),(32,44),(15,63), 36,(30,39,54),(52,136),(16,27,181), 13,(24,26,66$ ， $\left.\left.{ }^{67}\right),(22,59,133),(6,70),{ }^{* k}(50,122,12)\right),(33,34),(37,33,42,134,137),(57,64),(10,18,53,120$ ， ${ }^{130}$ ），（ $4^{8,}, 5^{6},{ }^{2} 21$ ），（49，4＇，94），（ $11,12,28,31,49,51,55,68,9^{3}$ ）．
（Advanced A．A．）， $1,3, * *$
I＇rigonometry．$-13_{2}^{2}, 131,87,15,33,157, *(19,136),(14,16,85), 135,225,161,226,(149,181)$ ， $1_{94}, 86,9,(38,150,155),(159,182),\left(3^{2}, 13\right.$ ），10，＊＊20， $78,(4,153), 37,(8(6,17,41,81,88,127$ ． 137，151，193）．
（Advanced A．A．）－1＊．

Botany．－ 64,67 ），61， 204，（57， 130

## ${ }^{175}, 157$ ，（ 18

 AdvancedAlgebra．－
159，（9r， 18
117），（ 157,20
（49，62，129，
（ $14,38,85,1$
223），（9，27， 1
$63,73,93,161$
$58, \mathbf{1 2 0}, \mathbf{1 8 9}$ ），
$6_{7}, 104,138,1$
Advanced $A$
( $133,14^{3}$ ), ( 18 r , 212), 146, 182, $6,184,193,196$,
216), (38, 209), 212), (5, 97, 36, 39, 104, 132, $4_{4}$, 69, 78, 136, , 129), (70, 153 , 3, 206), ( 16,47 , $\left(56,73,81,9^{8}\right.$, 214), ( 146,162 , 48, 51, 109, 120,
226).
$90,46,(47,89)$,
192), (9, 54), , 45 189), (23, 224), (162, 170, 93, 217), 24, $3^{1,}$ , 61,80, 97, 113, , (12, 39, 53, 63, (6, 26, 99, 226; , 5, 120, 127, 130,
(113, 205), 217, ( $15^{8}, 192$ ), (146, , (89, 101, 225), 90), (108, 163, (111, 141, 221), 6), 161, 12, (33,
,201), (9, 41, $4^{6}$, 4), $(12,64), 66$,
[16, 216), 42, (9,

1, $23,(8,47)$, ${ }_{13},(24,26,66$, (10, 18, 53, 120,

Botany. $-143,90,147,144,91,50,(60,129,145),(121,136), 44 \%,(45,58,158),(46$, $64,67), 61,(59,148), 165,(47,55,120),(66,195),(187,193),(134,160,203),(49,51,190)$, 204, ( 57,130 ), ( 189,202 ), $(69,146,159),(63,201), 101,(137,155), 133$, 䊉 $(71,126), 122,213,222$, ${ }^{175}, 157,(185,197)$, (100, 110, 194).
Advanced A.A. ${ }_{3}$, 2 .
Algebra.-( $15,87,131,143,166),(35,132,164,213),(90,179), 76,(45,78,111)$, 159, ( 91,182 ), $25,60,42,148,30,165,187,(19,40,181),(47,97), 7,(29,194),(16$, $\left.{ }^{117}\right),(157,201,209),(33,108,144,198), 155,158,205$, * (59, 210), (216, 225, 226), (52, 193), 192, (49, 62, 129, 175), (43, 203, 204, 221), ( $79,125,137$ ), ( 77,195 ), (10, 41, 92, 145, 190), (11, 136, 152), $(14,38,85,135),(75,196,222),(5,34,57),(44,95,121),(20,36,88,107),\left(3^{2}, 114\right),(62,167,220$, $223),(9,27,127,227),(56,202),(55,61,100,149,150,199),(37,184,218,224),(34,185),(6,51$, $63,73,93,161)$,** ( $13,70,122,176,197$ ), ( $17,24,50,53,81,101$ ), ( $26,31,46,153,160,211$ ), (39, $58,120,189),(21,66,86,99,146),(48,116) .(8,103,130,156),(64,68,98,140,147,154,212)$, $67,104,138,141,110) .(4,72,106,109,113,170,180,206,217$ ).
Advanced A.A. ${ }_{1},{ }^{*}{ }_{3},{ }^{* *} 2$.

# Fockised the anniversity framinatious. 

SESSION, 1896-97.

FACULTY OF LAW.
PASSED FOR THE DEGREE OF D.C.L. IN COURSE.
Willian de Montmolin Marler, B.C.L.
Robert Stanley Weir, B.C.L.
PASSED FOR THE DEGREE OF b.C.L.
(In order of inerit.)

William Oswald Smyth, B.A. Toronto, 0 .
Francis J. Laverty, B.A. (Laval), Montreal.
J. Armitage Ewing, Melbourne, Q.

Chas. H. Mansur, B.A., Stanstead. Q
Abner W. Kneeland, M. A., South Stukeley, Q.
EI. H. Trenholme Dickson, B.A., Trenholmeville, Q.
Wm. Langley Bond, B.A., Montreal.
George A. Montgomery, B.A., Phillipsburg, Q.
Joseph E. A. Bissonnet, B.A. (Laval), St. Hyacinthe, Q.

Alex. McN. Stewart, Elinburgh, scotland.
Edgar N. Armatrong, B.A., Montreal.
Leslie H. Boyd, B. A., Montreal.
Frank A. C. Bickerdike, B.A., Lachine, $Q$.
Frederick E. Cole, Montreal, \}equal Pierre S. Jazmin, Coaticooke, \}equal
Numa P. Broszoit, B ranharnois, Q. Numa P. Brossoit, B ranharnois, Q.
Arnold W. Duclos, B.A., St. Hyacinthe, Q .
John Wilson Cook, Quebec, Aeger.

McKinnon McLennan McLennan McNally,

McRae, J.
McRae, W
Malloch, N
Maloney, N
Merkley, E
Midgeley, I
Millburn, .
Morris, C.I
Morse, L.H
Pallister, 1
Palmer, A.
Pennoyer,
Ritchie, A.
Robert, G. 1
Robertson,

BACHEI

## FACULTY OF MEDICINE.

PASSED FOR THE DEGREE OF M.D., C.M.
(Arranged alphabetically.)

Barclay, J.,
Brown, C. Ľ., B.A.,
Brown, W. K.,
Montreal
Burrell, R. H., B. A.. Yırmouth,N.S Campbell, I. G., D. V.S., Montreal Clendinin, S. L., Brighton, Ont Curran, T. J. J., Montreal Dalmage, F'. W., B.A., St. Mary's, O D yle, J. J., Halifax, N.S. Dunbar, W. R., Abercrombie, N.S Eberts, E. M. von, Winnipeg, Man Foster, G. M., Pembroke, Ont Foster, A. L., Ottawa, Ont Gilday, F. W., Gordon, G. S., Gourley, T. A., Gurl, C. C., B.A., Harding, E. S., Harvey, F. C.
Hayden, E. W., Montreal $\mathrm{H}_{3}$ lifax, N.S Eganville, Ont Montreal
Amherst, N. S W lfville, N.S Cobour ${ }^{\text {r }}$, Ont

Hardman, H. H.,
Ottawa, Ont Johnston, J. A., Emrald Junc, P.E.I Johnston, W., Charlottetown, P.E.I Jost, A. C., B. A., Guysbrro, N. S Keenan, C. B., Kerr, R. A.,
Kirby, H. S.,
Laidley, I. H,
Laing, A. L.
Lennon H., B A.,
L.e T suzel, J. R.,

Ottawa, Ont Montreal Lockary, J. L.
Lyster, H.F.,
st. S
Richmond,
MacCallum, E C. D., Kingston, O
Macdonald, D. J., Whycocornag',
C.B.

McDougall,G. P.,Grand River,P.E.I
McDougall, J.G., Blue Monn-
tain, N.S.
McElroy, A.S.,
Richmond, 0

## tious.

Elinburgh,
B.A., Mon-
[ontreal.
?, B.A., La-
real, \}equal harnois, $\mathbf{Q}$. 1., St. Hya-
bec, Aeger.

Ottawa, Ont 1 Junc, P.E.I town, P.E.I ysboro, N.S Ottawa, Ont Montreal Ottawa, Out Montrea! M ontreal Montreal Goderich, 0 ephen, N.B. Zichmond, Q Kingston, 0 yeocornggh, C.B 1River,P.E.I Blue Monntain, N.S. Richmond, 0

McKinnon, F.W., Vankleek Hill, 0 McLennan, A.A., Lancaster, 0 McLennan, D. A., Montreal McNally, W. P., Abrams Village, P.E.I.

McRae, J. D., Glen Ellis, 0 McRae, W.R., Baddeck, C.B. Malloch, N., Maloney, M.J., Merkley, E. Aganvile, 0 Midgeley, R.J., Millburn, J.A., Morris, C.H , B.A., Windsor, N.S. Morse, L.H., B.A., Bridgetown, N.S. Pallister, W.'I'., Palmer, A.J., Pennoyer, A.R., Ritchie, A.A., Robert, G.C., Robertson, H.M.,

Rogers, F. E.,
Roy, J.J. New Brighton, $\mathbf{O}$
Scott, W.T., Now Montreal Skeels, A. A., B.A., Montreal Smith, H., Acadia Mines, N.S. Smith, R. A., Durham, 0
Stanfield, H. M., B.A., Truro, N.S. Sterling, A., Fredericton, N. B. Sutherland, G. R., Hodgson, N.S. Tierney, J. A.. Valleyfield, Q Thomas, H. W., Montreal Thomas, J. E.,

Montreal
Thompson, J. A., Kinnear's Mills,Q Tozer, F. W., Newcastle, N.B. Trainer, J. B., Kelly's Cross,P.E.L. Wainwright, F. R., Montreal Wainwright, S.F.A., St. Andrews, Q Williams, E.J., B.A., Sherbrooke, Q Wilson, F.W.E.,

Montreal

## FACULTY OF ARTS.

BACHELORS OF ARTS PROCEEDING TO THE DEGREE OV M,A. IN COURSE,
Cole, Arthle A., B.A.
Dresser, Jno. A., B.A.
Townsend, Wm. MoNeill, B.A.
Graham, Angus A., B.a.
b.a. admited "ad eundem gradum."

Katherine T. Lyman, B.A. (Vassar College).

PASSED FOR THE DEGREE OF B.A.
In Honours.
(Arranged alphabetically.)

## McGILL COLLEGE.

First_Rank.-Archibald, Samuei, G.
Cameron, Mary S.
Campbell, Roland P.
Doull, Ethel M.
Galt, Annie P.
Holden, Margaret.
Mackay, Malcolm.
McMaster, Andrew R.
MacMillan, Talmage R.

Ross, Elizabeth.
Rugg, Alice.
Saxe, John G.
Walbridge, Mabel H.
Wyman, Daniel B.
Young, Laura A.
Third Rank.-Steacy, Frederick W.
Ordinary B. A.
(In order of merit.)
MoGILL COLLEGE.
Class 1.-Ker, Robert Harold.
Rowat, Donald McK.
Boyce, William S. P.
Smith, A. Louise.
Ives, Charles K.
Reynolds, A. Florence.
Howard, A. Campbelil P.
MoBurney, Charles.
Henderson, Grace.
Class 1I.-Armstrong, W. J. Alexander. $\left.\begin{array}{c}\text { Trenholme, Arthur K. }\end{array}\right\}$ equal.
Trenholme, Arthur K.
Campbell, Edward Ma
Magfarlane, Lawrence.
Mallinson, Stephen H.
Wyman, Hiram B.
Douglas, Robert.
Willis, John J.
\}equal.

Russel, Colin K.
Browne, John G.
Mclean, Samuel.
Stevenson, James.
Watters, Wm. H.
Class III.- Binds, Charlotte.
McBurney, Edith E.
\} equal.

Stephen, Jennie.
Ross, Alexander R.
Ryan, William A.
DuBoyge, Percy C.
Ashdown, Crarles R. Eger.-McLeod, Donald M.

PASSED THE INTERMEDIATE EXAMINATION,

## McGILL COLLEGE.

Class 1.- Robertson, Lemufl.
Edward, Archibald T.
Wainwright, Arnold.
Patch, Frank S.
Bruce, Guy 0. T.
Browne, Walter G.
McLeod, John B.
Henderson, Ernest H.

Class II.-Cotron, Charles M.
Ells, Hugh.
McClung, Robert K.
Holidar, Annie.
Rice, Horace G.
Scrimger, Anma M.
Hunter, Edwin N. McL.
Ketth, Henry J.
\}equal.
$\left.\begin{array}{l}\text { Thompson, James E. } \\ \text { MoGili, J. Winifred. }\end{array}\right\}$ equal.
Radford, Janey I.
Laurie, Ernest.
Goodall, James R.
Potter, Lecy E.
McKenzee, Bertram.
King, Christina C.
MoDonald, Paul. A.
$\left.\begin{array}{l}\text { MoDovgall, Louise. } \\ \text { White, E. Hamilton. }\end{array}\right\}$ equal.
Duguid, R. Colin.
Gardmer, R. Lorne.
Class 1lI.-Brodie, Margaret.
$\left.\begin{array}{l}\text { Brodie, Margaret. } \\ \text { Hardisty, Richard H. n. } \\ \text { Johnson, H. }\end{array}\right\}$ equal.
Bates, C. J. L.
Finley, Kathleen E.
Johnson, R. De Lancey.
Lee, Hexry S.
Lundie, John Alexander.
Dixon, Wm. E.
Hurst, Isabel M.

Cumming, W. Gordon.
Parks, Majgaret.
Armstrong, Catherine (s).
Holland, Thos. B. (s)
Millar, W. K. (s).
Munro, Thos. A. (s).
Reynolds, E. E. M. (s).
Stewart, Donald (s).

MORRIN COLLEGE.
Class I-SEIfert
Class II-Jackson. (s).
(s) Wit. $h$ supplemental in one subject (arranged alphabetically)

STANSTEAD WESLEYAN COLLEGE
Class III-Rugg.

## FACULTY OF APPLIED SCIENCE.

ADMITTED TO THE DEGREE OF BACHELOR OF APPLIED SCIENCE. (Ad euntem.)
Lee Treadwell, Pencoyd, Pa., U.S.A.
Alexander Lawson Mellanby, B.Sc., Newcastle-on-Tyne, England. *
ADMITTED TO THE DEGREE OF MASTER OF APPLIED §OIENCE.

> (In Course.)

Frank Henry Pitcher, B.A.Sc., Montreal.
ADMITTED TO THE DEGREE OF MASTER OF ENGINEERING, (In Course.)

John Taylor Farmer, B.A.Sc., Liverpool, England.
PASSED FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.
(In Order of Merit.)
civil engineering.
MacLeod, George Roderick, Uigg, P.E.I.
Newcombe, Avard Borden, Lakeville, N.S.
Ogilvie, William Morley, Cumming's Bridge, Ont.
electrical engineering.
Stovel, Russell Wellesley, Toronto, Ont.
Thomson, Clarence, Montreal.

## 263

Macbean, Stanley Lorne, Montreal.
Macdonald, James Ewan, New Glasgow, N.S.
Macdonald, Peter William, West Bay, N.S.
Edward, John Ross, Outremont, Que.
Blair, David Edward, Chicoutimi, Que.
Burnham, Harold Bostwick, Peterboro, Ont.
Packard, Frank Lucius, Montreal.
Davidson, Shirley, Montreal.
Walters, Morley Punshon, Hull, Que.

## MECHANICAL ENGINEERING.

McKinnon, George Douglas, Charlottetown, P.E.I.
Connal, William Ferguson, Peterboro, Ont.
White, Frank Herbert, Montreal.
Symmes, Howard Church, Aylmer, Que.
McKiobin, Frederick William James, Peterboro, Ont.
Bovey, Ed ward Palk, Torquay, Devon, Eng.
Balfour, Reginald Herbert, Montreal.
Drinkwater, Charles Grabam, Montreal.
McLaren, Duncan Taymouth, Montreal.
Paradis, Paul, St. Johns, Que.
Finnie, Oswald Stirling, Ottawa, Ont., and Haycock Richard Lafontaine, Ottawa, Ont., \}equal.
Chamberlain, William Theophilus, Halifax, N.S.
Ferguson, Thomas, Peterboro, Ont.
Ross, John Kenneth Levison, Montreai.
Sise, Charles Fleetford, Montreal.
Campbell, Alexander, Ottawa, Ont., aegro!at.
mining engineering.
Turnbull, John Moncrieff, Montreal.
Thomson, Henry Nellis, Quebec, Que.
Bell, John Wainwright, Montreal.
Archibald, William Munroe, Truro, N.S.
Reinhardt, Carl, B.A.Sc., Montreal.
Denis, Theophile, B.A.Sc., Montreal.
Dougall, Ralpb, Montreal.

PRACTICAL CHEMISTRY.
Suter, Robert Wm., Carleton Place, Ont.

## FACULTY OF VETERINARY SCIENCE.

PASSED FOR THE DEGRI OF D. V. S.

Burns, Walter.
Connely, T A.
Hilliard, W. A.
Killam, B. B.

Matthew, R. G.
Moore, J. C.
Newcomb, H. H.
Parker, J. C.

Stevenson, G. S.
Sugden, B. A.
Thayer, W. L.

## 

SESSION 1896-97.
FACULTY OF ARTS.
I. Scholarships (Tenable for two years).

| Year <br> of Award. | Names of Scholars. | Subjects of Examination. | Annual Value. | Founder or Donor. |
| :---: | :---: | :---: | :---: | :---: |
| 1895 | Mackay, Malcolm | Mathematics. | \$125 | W. C. McDorald. |
| 1895 | Cameron, Mary T. | Mathematics | 125 | Sir Donald Smith. |
| 1895 | Saxe, John G. | Nàt. Science. | 125 | W. C. McDonald. |
| 1895 | Ker, R. Harold | lass.SoMod.Lang | 125 | W. C. McDonald. |
| 1895 | MacMillan, T. R. | Class.foMod.Lang | 125 | W. C. McDonald. |
| 1896 | Gardner, Wm. A. | Mathematics. | 125 | W. C. McDonald. |
| 1896 | Brooks, Harriet | Mathematics. | 125 | Sir Donald Smith. |
| 1896 | Duff, Alex. H. | Nat. Scierne. | 125 | W. C. McDonald. |
| 1896 | Munn, D. Waiter | Class. ${ }^{\text {N }}$ N d.Lang | 120 | Miss Barbara Scott |
| 1896 | Heine, M. C. | Class.foMod.Lang | 110 | Chas. Alexander. |

II. Exhibitions (Tenable for one year.)

| Names of ExhibiTIONERS. | Academic Year. | Annual Value. | Founder or Donor. |
| :---: | :---: | :---: | :---: |
| Robertson. Lemuel rerguson, Colin C. <br> Bruce, Guy O. T. <br> Ainley, Laurence <br> Nutter, J. Appleton <br> Ogden, Chas. J. <br> Dey, M. Helena <br> Smith, Lillian A. | Second " <br> First " " " | $\$ 125$ 125 125 125 125 100 100 \& free tuition 120 | W. C. McDonald. W. C. McDonald. George Hague. W. C. McDonald. W. C. McDonald. Major Hiram Mills. <br> Sir Donald Smith. Sir Donald Smith. |

Jane Redpath Bursaries, value $\$ 45$ each, were awarded to Donald Cochrane and Elizabeth A. Brooks at the First Year Exhibition Examination.

William
Francis J
J. Armita
A. W. Kı

Jos. E.
Prizı
Leslie H.
Chas. H.
Abner W
E. H. T. I

William
G. A. Mon
E. Eiwin

Charles Il
Sannel C
E. E. How

Roger
John I

Frank C.
(Schol
William $\mathrm{F}_{1}$
Joseph No William E

Frank C.

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 session 1896-97. FACULTY OF LAW. THIRD YEAR. graduiting class.William Oswald Smyth, B.A. First Rank Hon urs and Elizabeth Torrance Gold Medal.
Francis J. Laverty, B.A. (Laval), First Rank Honours and Prize of $\$ 50$.
J. Armitage Ewing, First Rank Honours and Prize of \$25.
A. W. Kneeland, M.A., Prize for Thesıs, $\$ 25$.

Jos. E. A. Bissonnet, B. A. (Laval), British Columbia Graduates' Society
Prize. Awarded for answering all questions in General Examination Leslie H. Boyd, Wicksteed Silver Medal for Physical Culture.
Chas. H. Mansur, B.A., First Rank Honours.
Abner W. Kneeland, M.A., First Rank Honours.
E. H. T. Dickson, B.A., First Rank Honours.

William L. Bond, B. A., First Rank Honours.
G. A. Montgomery, B. A., First Rank Honours.

## SECOND YEAR

E. Eiwin Howard, B. A., First Rank General Standing, and Prize of $\$ 50$.

Charles Iles, First Rank General Standing, and Prize of $\$ 25$.
Sanuel Clay, B.A. (Cantab), First Rank General Standing.
passed the sessional examination.
E. E. Howard, B. A., Chas. Iles, S. Clay, B. A. (Cantab), H. M. Marler, R. H. Rogers, B.A., J. C. Hickson, B.A., H. J. Elliott, Arthur Burnet, B.A, John R. Kennedy, Chas. Champoux, B.A. (Laval).

## FIRST YEAR.

Frank C. Saunders, B.A., First Rank General Standing and first prize (Scholarship) of $\$ 100$.
William Frederick Carter, Scholarship of $\$ 100$.
Joseph Noel Félix Descarries, B.A. (Laval), prize of $\$ 50$.
William Evander McIver, prize of $\$ 25$.
PASSED THE SESSIONAL EXAMINATION.
Frank C. Saunders, B.A., William Frederick Carter, Joseph Noel Félix Descarries, B.A. (Laval), William Evander McIver, Edmond B. Drolet, B.A. (Laval), Walter H. Lynch, William Carlos Ive s, Edward P. F* McCabe (s), William S. Ball, E. E. Vipond (s), Joseph C. Barlow (s), Walter E. G. Thornelve, B.A. (Bishops), (s), Henry Baby, jun., B. A (St. Mary's), (s).

## Standing in the classes.

THIRD YEAR.
Criminal Procedure - Professor Hon. J. S. U. Wurtrle, J. Q. B.
Smyth, Laverty, Bond ; Stewart and Ewing, equal ; Bisonnet; Brossoic and Kneeland, equal ; Bickerdike, Cook, Dickson; Jasmin, aad Montgomery and Armstrong, equal ; Cole, and Mansur and Boyd, equal ; Duclos.
minority, tutorship, etc.-Professor L. H. Davidson, D.C.L., Acting Dean.

Smyth, Laverty, Ewing, Mansur; Kneeland and Bissonnet, equal; Stewart and Montgomery, equal; Brossoit and Cook, equal: Dickson ; Bond Boyd and Armstrong, equal; Bickerdike; Duclos and Jasmin, equal; Cole.

MERCHANT SHIPPING-Professor Davidson.
Smyth, Laverty, Bond, Mansur, Kneeland, Montgomery; Ewing and Armstrong, equal; Cook and Jasmin, equal; Duclos; Cole and Bissonnet, equal; Boyd, Stewart, Dickson, Brossoit, Bickerdike.

BILLS AN ? NOTES--Pzofessur Dav.dson.
Third Year.--Ewing and Smyth, equal; Dickson, Laverty; Boyd and Armstrong, equal; Duclos, Montgomery, Mansur, Kneeland, Jasmin, Bickerdike, Bissonnet, Stewart, Cole, Bond.
HISTORY OF LAW OF LOWER CANADA AND CONSTITUTIONAL LaW-Professor arch. McGoun, M.A., B.C.L.

Kneeland; Armstrong and Ewing, equal ; Smyth, Laverty, Bickerdike; Mansur and Jasmin and Bond and Dickson, equal; Stewart, Bissonnet; Boyd and Montgomery, equal; Cole, Brossoit, Duclos.

PRIVILEGES AND HYPOTHECS—Professor McGoun.
Ewing, Smyth, Mansur, Laverty, Montgomery, Cook ; Bond and Dickson, equal; Armstrong, Stewart, Cole; Bissonnet and Jasmin, equal; Brossoit and Boyd and Kneeland, equal ; Duclos, Bickerdike.

Law of PERSONS-Professor Thomas Fortin, LL.B., B.C.L., M.P.
Ewing, Smyth, Laverty, Stewart, Kneeland, Mansur, Armstrong, Bickerdike ; Jasmin and Dickson, equal; Cole, Bissonnet; Montgomery and Bond, equal; Boyd and Brossoit, equal ; Duclos.
Law of sales of immovables-Professor W. de M. Marler, B.a., B.C.L., N.P.

Bond and Smyth and Laverty, equal; Ewing, Mansur ; Cook and Montgomery, equal ; Armstrong, Dickson; Gole and Duclos, equal; Bickerdike, Kneeland; Brossoit and Bissonnet and Stewart, equal ; Boyd and Jasmid, equal.

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LAW OF GIFTS-Professor Hon. C. J. Doherty, B.C.L., J. S. C.
Smyth and Dickson, equal; Montgonery; Laverty and Bissonnet and Mansur, equal ; Bond, Ewing, Kneeland, Armstrong, Duclos, Cole, Brossoit and Stewart, equal; Jasmin, Boyd, Bickerdike.

LAW OF WILLSAND SUBSTITUTIONS-Professor Dohetry.
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.., Acting d; Stewart son ; Bond nin, equal;
wing and lBissonnet,
and Armin, Bicker-

UTIONAL
Bickerdike; , Bissonnet;

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Armstrong, lontgomery

九LER, B.A.,
and Montual; Bicker; Boyd and

Smyth, Dickson; Ewing and Boyd, equal ; Kneeland and_Mansur, equal ; Bond and Laverty and Stewert, equal ; Bissonnet and Cook, equal ; Armstrong, Bickerdike, Jasmin, Montgomery, Cole, Duclos, Brossoit.

Sales of Moveablees-Professor Eugene Lafleur, B.A., B.C.L.
Laverty, Montgomery ; Mansur aad Smyth, equal ; Bond and Dickson, equal; Stewart ; Bickerdike and Ewing, equal ; Kneelaud, Bissonnet ; Boyd and Cole, equal ; Duclos, Jasmin, Brossoit, Armstrong.

CIVIL PROCEDURE-Lecturer P. C. Ryan, B.C.L.
Laverty, Smyth, Dickson, Ewing; Kneeland and Bissonnet, equal ; Armstrong and Stewart, equal; Montgomery, Mansur, Boyd ; Jasmin and Cole, equal ; Brossoit, Bond, Cook, Bickerdike, Duclos.

LAN OF CARRIERS-Lecturer Aur Geoffrion, B.C.L.
Kneeland, Ewing, Laverty ; Montgomery and Brossoit, equal ; Bicherdike and Mansur, equal ; Bond ; Dicksoz and Smyth, equal ; Bissonnet, Armstrong, Duclos, Stewart, Jasmin, Boyd, ©ole.

## Second Year.-

Criminal Procedure-Professor Wurtele.
Hickson; Elliott and Clay, equal ; Tles and Honan, equal ; Howard; Marler and Champoux, equal ; Burnet ; Semple and Rogers and Kennedy, equal.

LAW OF BILLS AND NOTES-Professor Davidson.
Howard, Kennedy, Iles, Champoux, Hickson ; Marler aud Elliott, equal; Clay, Burnet, Rogers.

MINORITY TUTORSHIP, ETC.-Professor Davidson.
Hickson, Howard, Marler, Kennedy, Rogers, Iles ; Champoux and Elliot; equal ; Clay and Honan and Semple, equal ; Burnet.

MERCHANT SHIPI'ING-Professor Davidson.
Clay, Howard, Marler, Rogers, Burnet, Elliott, Hickson, Honan, lles, Kennedy; Champoux and Semple, equal.

HISTORY AND CONSTITUTIONAL LAW-Professor McGoun.
Howard, Clay, Iles, Rogers, Hickson, Burnet, Kennedy, Semple ; Champoux and Elliott, equal ; Marler.

## PRIVILEGES AND HYPOTHECS-Professor McGoun.

Iles, Clay, Burnet, Howard, Hickson, Rogers, Marler, Elliott, Kennedy. Semple, Champoux.

## LAW OF PERSONS-Profeczor Fortin.

Iles, Clay, Howard, Marler, Rogers, Kennedy, Elliott, Hickson ; Burnet and Semple and Champoux, equal.

## SaLES OF immovables-Professor Marler.

Howard ; Marler and Rogers, equal; Iles, Clay, Champoux, Elliott, Kennedy ; Hickson and Burnet, equal.

LAW OF GIFTS-Professor Doherty.
Howard, Clay, Marler, Elliott, Iles, Rogers, Hickson, Burnet, Kennedy ; Honan and Champous, equal ; Semple.

LAW OF WIILS AND SUBSTITUTIONS-Professor DонеRTY.
Marler and Rogers, equal ; Howard, Burnet, Cbampoux, Hickson ; Elliott and Kennedy, equal ; Clay, Iles, Honan.

Sales of moveables-Professor Lafleur.
Iles ; Clay and Howard, equal ; Marler, Rogers, Burnet, Elliott, Kennedy, Hickson, Champoux, Semple.

CIVIL PROCEDURE-Lecturer Ryan.
Iles, Clay, Howard, Semple, Marler, Rogers ; Hickson and Burnet, equal ; Elliott ; Honan and Kennedy, equal ; Champoux.

LaW OF CARriErS-Lecturer Aimé Geoffrion.
Iles, Howard, Rogers, Kennedy, Burnet; Champoux and Elliott and Hickson, equal ; Marler, Clay, Semple.

First Year.
Criminal_Law-Professor Wurtele.
Carter ; Lynch and Saunders, equal ; McCabe; Whelan and Drolet, equal; Baby and Bercovitch, equal ; Thompson and MacIver, equal ; Thornloe and ${ }_{8}$ Ball and Ives and Descarries, equal ; Robertson and Barlow and Vipond, equal.

BILLS AND NOTES-Professor Davidson,
McIver, Drolet, Sannders, Descarries, Lynch ; Barlow and McCabe, equal ; Carter, Ball, Robertion, Ives ; Vipond and Thornloe, equal.

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LAW OF WILI
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LAW OF SALE
Saunder Ball a

MERCHANT SHIPPING, BOTTOMRY AND RESPONDENTIA-Professor Davidson.
t, Kennedy.
;on ; Burnet

Elliott, Ken-
st, Kennedy ;
kson ; Elliott

Elliott, Ken-
arnet, equal ;

Elliott and
)rolet, equal; al ; Thornloe and Barlow
cCabe, equal ; 11.

Savaders, Lynch; Carter and Drolet, equal ; Barlow ; Ives and Ball and Maciver, equal ; Thornloe and Descarries and Vipond, equal; Robertson and Bercovitch, equal ; Baby.
minority, tutorship, emancipation and curatorship-Professor Davidson.

Lynch, Saunder ; Carter and MacIver, equai: Ives, Drolet; McCabe and Bercovitch, equal ; Descarries, Vipond, Ball, Thornloe; Barlow and Baby and Robertson, equal.
history and Constitutional law-Professor McGoun.
Drolet and Saunders and Carter, equal ; Descarries ; McCabe and MacIver, equal ; Whelan, Honan; Ives and Vipond, equal ; Lynch, Baby, Thornloe, Barlow, Robertson.

PRIVILEGES AND HYPOTHECS—Professor McGoun.
Saunders, MacIver, Carter, Thornioe, McCabe, Descarries, Barlow, Drolet, Ives ; Vipond and Whelan, equal ; Lynch, Baby ; Ball and Robertson, equal ; Thompson, Bercovitch.

LAW OF PERSONS-Professor Fortin.
Descarries, Saunders, Lynch, Droiet ; Carter and McCabe, equal ; Thorn loe, Ives, MacIver, Ball; Vipond and Honan and Baby, equal.

LAW OF GIFTS-Professor Doherty.
Descarries, Saunders, Drcler, Maciver, Lynch, Ives, Barlow, Baby ; Vipond and Carter and Mcuabe and Robertson and Thornloe and Whelan, equal ; Ball (s).
law of Sales OF ILMOVABLES-Professor Marler.
Saunders and Carter, equal ; Whelan and Baby and Lynch and Descarries and Barlow, equal ; MacIver; Drolet and Ball and Vipond, equal ; Ives, McCabe.

LAW OF WILLS AND SUBSTITUTIONS.-Professor Dohrrty.
Saunders, Descarries, MacIver, Ball, Ives, Robertson, Carter ; Thornloe and Vipond and Drolet, equal ; Barlow ; McCabe and Lynch, equal ; Whelan, Baby.

LaW OF SALES OF MOVEABLES.-Professor Laflrur.
Saunders, Descarries, Ives; Baby and Carter, equal ; Lynch, Drolet ; Ball and MacIver and Thornloe, eqcal.

CIVIL PROCEDURE.-Lecturer Ryan
Saunders, Carter, Maciver, Lynch, Drolet, Descarries, Barlow, McOabe Ball and Vipond and Ives and Bercovitch, equal.

Law of Carriers.-Lecturer Gbopprion.
Saunders, MacIver ; Descarries and Ives, equal ; McCabe ; Carter and Thornloe, equal ; Drolet ; Baby and Honan, equal; Whelan and Betcovitch, equal ; Lynch, Vipond, Ball, Barlow ; Thompson and Robertson, equal.
PRELIMI ARY COURSE-Professor Davidson.
Carter, Drolet, Lynch, Ives ; Barlow and Robertson equal ; McCabe, Baby, MacIver, Descarries ; Ball and Thornloe, equal.

## FACULTY OF MEDICINE

## MEDALS AND PRIZES.

The Holmes Gold Medal for the highest aggregate in all the subjects of the Medical curriculum, John George McDougall, of Blue Mo ntain, Nova Scutia.
The Final Prize for highest aggregate in Third and Fourth years subjects, Alexander Rose Pennoyer, of Gould, P. Q.
The Clemesha Prize for Clinical Therapeutics, Isaac Henry Laidley, of Montreal, P.Q.
The Sutherland Medal, Arthur Lyall McMurtry, of Bowmanville, Ont.
The Second Year Prize, Wilifiam Oliver Rose, of Lakefield, P. E. I.
The Senior Anatomy Prize, Newton Esra Drier, of Richmond Corners, N. B.

The First Year Prize, Alva Hovey Gordon, of St. John, N. B.
The Junior Anatomy Prize, Laughlin George Cameron, of Ottawa, Ont.
The Botany Prize, Thomas Turnbuli., of Stratford, Ont.
The Zoology Prize, Alva Hovey Gordon, St. John, N. B.
The McGill Medical Society Prizes, Senior Prize, W. H. Dalpé, B.A.; Junior Prize, F. T. Tooke, B. A.

## FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

PRIZES.
Sest General Examination-Silver Medal, gift of the Dean, and two Books, gift of the British Columbia MeGill Alumni Association-Won by B. A. Sugden.
Veterinary Medicine and Surgery-R. G. Matthew.
" Anatomy-W. B. Wallis.
Cattle Pathology-R. G. Matthew.
Cynology-B. A. Sugden.
Pharmacology and Therapeutics-B. A. Sugden.
Botany -James McGregor-

Chemistry -
Physiology. Histology-

Special Priz
Veterinary Al

For the best session-1st-

For the bes Psychology.D. A. Sugden.

Mackar, Mal Cameron, Ma

Macmillan, 1
Steacy, Fred

Campbell, Ro
Saxe, John G
Walbridge,

Saxe, John G
Ross, Elizabe
Dould, Ethel
B.A.

Archibald, $\mathrm{S}_{A}$
Holden, Marc
MoMaster, As
Galt, Annie I

Young, Laura
Rugg, Alige. -

Wyman, Dan.

Chemistry -W. B. Wallis.
Physiology-W. B. Wallis.
Histology-W. B. Wallis.
Special Prize for Examination of Horses for Soundness-Presented by McGill Veterinary Alumni Association of Massachusetts-H. H. Newcomb.

## ASSOCIATION PRIZES.

For the best essays read before the Veterinary Medical Association during the session-1st-J. C. Parker. 2nd-B. A. Sugden. 3rd-R. G. Matthew.

For the best essay read before the Society for the Study of Comparative Psychology.-1st year-E.W. Hammond. 2nd year-J. P. Spanton. 3rd yearD. A. Sugden.

## FACULTY OF ARTS.

graduating class.
B.A. Honours in Mathematics and Natural Philosophy.

Mackay, Malcolm.-First Rank Honours.
Cameron, Mary T.-First Rank Honours.

## B.A. Honours in Classics.

Macmillan, Talmage R.-First Rank Honours and Chapman Gold Medal. Steacy, Fred. W.-Third Rank Honours.

## B.A. Honours in Geology, Mineralogy and Paloeontology.

Campbell, Roland P.-First Rank Honours and Logan Gold Medal. Saxe, John G.-First Rank Honours.
Walbridge, Mabel H.-First Rank Honours.

## B.A. Honours in Mental and Moral Philosophy.

Saxe, John G. -First Rank Honours and Prince of Wales Gold Medal. Ross, Elizabeth.-First Rank Honours. Doull, Ethel M.-First Rank Honours.
B.A. Honours in English Language, Literature and History.

Archibald, Samuel G.-First Rank Honours and Shakespere Gold MedaI. Holden, Margaret.-First Rank Honours. MoMaster, Andrew.-First Rank Honours. Galt, Annie P.-First Rank Honours.

## B.A. Honours in Modern Languages and History.

Young, Laura.-First Rank Honours and Aberdeen Gold Medal.
Rugg, Alioe.-First Rank Honours.

## B.A. Honours in Semitic Languages and Literature.

Wyman, Dan. B.-First Rank Honours and Neil Stewart Prize.

## Special Certificates for First Rank General Standing.

Ker, Robert Harold, Special Certificate and Hiram Miils Gold Medal.
Rowat, Donald McK.-Special Certificate.
Howard, A. Campbell
Ives, Charles K.
MoBurney, Charles
Reynolds, A. Florence
Smith, A. Louise
Scrimger, J. Tudos, B.A.-New Shakespeare Society's Prize.

## third year.

Brooks, Harriet.-First Rank Honours and Prize in Mathematics and Natural Philosophy. First Rank General Standing.
Carr, Murizl B.-First Rank Honours in Classics. Prize in Latin, Prize in Greek. First Rank General Standing.
Munn, D. Walter.-First Rank Honours in Classics. Prize in Latin. Prize in Greek. First Rank General Standing.
Dalgleish, Robert W.-First Rank Honours in Natural Science.
Paterson, Robert Childs.-First Rank Honours and Prize in Mental and Moral Philosophy. First Rank General Starding.
Duff, Alex. Huntley.-First Rank Honuurs in Mental and Moral Philosophy. First Rank General Standing.
Seifert, Ethel Margaret.-First Rank Honours in Mental and Moral Philosophy, Prize in French. First Rank General Standing.
Campbell, J. A. E.-First Rank Honours in Mental and Moral Philosophy. First Rank General Standing.-Prize in Zoology.
Thompson, James R.-First Rank Honours in Mental and Moral Philosophy. First Rank General Standing.
Place, Edson Grenfell.-First Rank Honours in Mentai and Moral Philosophy.
Ship, M. L.-First Rank Honours in Mental and Moral Philosophy.
Vineberg, Abraram.-First Rank Honours in Mentel and Moral Philosophy
Shaw, A. Louise.-First Rank Honours in Mental and Moral Philosophy.
Bates, Geo. E.-First Rank Honours in Mental and Moral Philosophy.
Blythe, Robert B.-First Rank Houours in Mental and Moral Pbilosophy.
MacLeod, H. Steinforth, $\{$ equal. First Rank Honours in Mental and
Turner, Henry H. $\quad\{$ equal. $\} \quad$ Moral Philosophy.
Bourke-Wright, Kathleen.-First Rank Honours and Prize in English Language, Literature and History.
Heine, H. Caswell.-First Rank Honours in English Language, Literature and History.
Walker, Laura M.-First Rank Honours in English Language, Literature and History.
Cameron, Frances.-First Rank Honours in Modern Languages and History.

Meyer, J. B
Lite
McGregor, Bishop, W. :

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Leney, John Prudham, W Colby, John Jordas, ILo

Brooks, Carr, equal equal
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Patch, Frank
Botany
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Meyer, J. B.-First Rank Honours and Prize in Semitic Languages an 1 Literature. First Rank General Standing.
McGregor, J. Albert.-Second Rank Honours in Natural Science.
Bishop, W. S.-Second Rank Honours in E:gglish Language, Liturature and History.
Maclaren, archibald H.-Secoud Rank Honours in English Language Literature and History.
Leney, John M.-First Rank General Standing.
Prudiam, W. W.-First Rank General Standing.
Coley, John C.-Prize in Freach.
Jordan, Ilorence M.-Prize in Zoology.
third year.

## passed the semsional examination.

Brooks, Carr, Paterson, Munroe ; Daff and Meyer, equal ; Campbell and Prudham, equal ; Thomson and Seifert, equal ; Leney ; Turner (W. D.) and Ship, equal; Gilday and Heine and Cameron, equal ; Dalgleish and (') Gardner, equell ; Grace and McConnel and Vineberg, equal; Tarlton and Reynolds, equal ; Colby and Place, equal ; Turner (H. H.) and Worth, equal; Thomas and Jordan and Pearson, equal ; Todd and Walker, equal ; McGregor and Dover, equal ; Bates and Ross and Bourke-Wright and Shaw, equal ; Blyth and Maclaren, equal ; Steen, Stephens, Bishop.

## SECOND YEAR.

MoClung. Robt, K.-(Hamilton Collegiate Institute).-First Rank Honours and Prize in Mathematics.

Bioce, Guy O. T.-(Huntingdon Academy).-First Rank Honours and Prize in Mathemat ies and First Rank General Standing.

Edward, Abch. T.-(Montreal Collegiate Institute).-First Rank Honours in Mathematics and First Rank General Standing.
Johnson, Helena.-(Private Tuition).-Second Rauk Honours in Mathematice.
Robertsox, Lemugl.-(Prince of Wales College, P.E.L.).-First Rank General Standing ; Prize in Greek; Prize in Latin; Prize in German ; Prize in Modern History; Coster Memorial Prize.

Wainwright, Arnold.-(Montreal Collegiate Institute).-First Renk General Standing; Prize in Greek ; Prize in Latin.

Patch, Frank S.-(Montreal H. S.).-First Rank General Standing; Prize in Botany ; Prize in Modern History.

McLeod, John B.-(Prince of Wales Cullege, P.F.I.).-First Rank General Standing; Prize in Hebrew;

Brown, Walter G-(Huntinglon Acad.).-First Rank General Standing.
Henderson, Ernest H.-(Huntingdon Acad.).-First Rank General Standing.
Holiday, Annie.-(Montreal Collegiate Institute).-Prize in French; Prize in

Botany.

Finley, Katalesn.—(Private Tuition).—Prize in German.
second year.
PASSED THE SESSIONAL EXAMINATION.
Class I.-Robertson, Edward, Wainwright, Patch, Bruce; Brown and McLeod, equal; Henderson. Clas 11 .-Cotton; Ells and McClung, equal; Holiday and Rice and Scrimger, equal; Hunter and Keith, equal ; Thompson and McGill, equal ; Radford, Laurie, Goodall, Potter ; MeKenzie and King, equal ; McDonald and MoDougall and White, equal ; Duguid, Gardner. Class III.-Brodie and Hardisty and Johnson (H.), equal ; Bates and Finley, equal ; Johnson (R. DeL.), Lee, Lundie, Dixon, Hurst, Cumming, Parks, Armstrong (s), Holland (s), Millar (s), Munroe (s), Reynolds ( $s$ ), Stewart ( $s$ ).
8.-With supplemental examination in on subject (arranged alphabetically.)

## FIRST YEAR.

Nutter, J. Appleton.-(Montreal H. S.). First Rank Honours and Prize in Mathe. matics; First Rank General Standing; Prize in Greek ; Prize in Latin; Prize in English.
Johnson, J. Guy W.-(Montreal Cullegiate Institute). First Rank Honours and Prize in Mathematics.
Dey, M. Helena.-(Simcoe H. S). Second Rank Honours in Mathematics; First Rank General Standing ; Prize in French ; Prizésin Latin.
Brooks, Elizabeth A.-(McGill Normal School). First Rank General Standing ; Prize in Greek.
Crowell, Bowman C.-(Milton H. S., Yarmouth, Nova Scotia). First Rank General Standing.
Marcuse, Bella.-(Montreal G. H. S.). First Rank General Standing ; Prize in German ; Prize in English.

Smith, Lillian A.-(Morrisburg Coll. Inst.). First Rank General Standing; Prize in Greek.
Ohamberlain, Alex. F.-(Ottawa Coll. Inst.). First Rank General Standing.
Jackson, E. Gertrude.-(Montreal G. H. S.). Prize in Greek.
Goodhue, Harry.-(Institute Fellows). Prize in French.
Weinfeld, Hy.-(Montreal H. S.). Prize in German.
Forbes, Wilfrid M.-(Prince of Wales Coll., P.E.I.). Prize in German.
Nutter, De
II. Second

McLeod, i, equal ; h, equal ; McKenzie ; Duguid, .), equal ; m, Hurst, anroe (s), tically.)
in Mathe. in Latin;
nours and
tics; First

Standing ;

Pirst Rank
; Prize in

Standing ;
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Nutter, Dey, Brooks; Crowell and Marcuse, equal ; Smith (L. A.), Chamberlain; Dixon and Forbes, equal ; Cohen and Hardy, equal ; Scott (G. W.) and Garlick and Jackson and Sever, equal ; Holman and Rorke and Weinfeld, equal ; Cochrane and Ells and Goodhue and Johnson and Lundie, equal ; Rowell, Elder; Jeakins and Ritchie and Walker (H.), equal ; Sangster and Scott (H. E.) and Woodley, equal; Willis, Grier, Cooke, Mackinnon and Reford, equal ; Cleghorn, Davies, Smith (N. F.), Kerr; Ireland and Tiffin, equal.
8.-Ainley, Baker, Buckham, Charters, Horsfall, McOormick, Perley, Rowat, Shaw, Skinner, Walker (J. J.).
(s) With supplemental examination in one subject (arranged alphabetically).

## AWARD OF SCHOLARSHIPS, EXHIBITIONS AND CLASSING AT ENTRANOE, SEPTEMBER, 1896.

I. Third Year.-Scholarships (tenable for two years).

Mathematical Scholarship.- (a) Gardner (Wm. A.).

> " " (b) Donalda Dept.-Brooks (Harriet).

Natural Science Scholarship.-(a) Duff(Alex. H.).
Classical and Modern Language Scholarship.-(c) Munn (D. Walter). (d) Heine (M. C.).
1I. Second Year Exhibitions (tenable for one year).
(a) Robertson (Lemuel), Prince of Wales Coll., P.E.I.
(a) Ferguson (Colin C.), Prince of Wales Coll., P.E.I.
(i) Bruce (Guy O. T.), Huntingdon Academy.
III. First Year Exhibitions.
(a) Ainley (Laurence), Almonte H. S., Exhibition.

(e) Ogden (Chas. J.), Three Rivers Academy, Exbibition.
(f) Cochrane (Donald), Montreal H. S., Bursary.
(f) Brooks (Elizabeth A.) McGill Normal School, Bursary.

## DONALDA DEPARTMENT.

(g) Dey (M. Helena), Simcoe H. S., Exhibition.
(h) Smith (Lillian A.), Morrisburg Coll. Inst., Exhibition.

Higher Entrance.
Class 1.-Ainley and Dey, equal; Nutter, Ogden, Smith; Brooks and Cochrane, equal. (Schools given in Exhibition list.)
Class II.—Johnson (J. Guy W.), Montreal Coll. Inst.; Reford (Lewis M.), Montreal Coll. Inst. ; Elder (Robt.), Huntingdon Academy, and Rowat (T. Alex.), Huntingdon Academy, equal.

Passed.-Cook (H. Lester), M. Coll. Inst. ; Hardy (Chas, A.), Prince of Wales Coll., P.E.I. ; Buckbam (Helen D.), Huntingdon Acad.; Jeakins (Chas. E.), Huntingdon Academy ; Ness (Wm.), Huntingdon.
(a) Annual value $\$ 125-$ Founder, W. C. McDonald, Esq.
(b) " " \$125-Donor, Sir Donald Srith.
(c) " " $\$ 120$-Founder, Barbara Scott.
(d) " " $\$ 110$-Founder, Chas. Alexander, Esq.
(e) " " \$100-Founder, Major Hiram Mills.
(f) " $\$ 45$-Bursary, Mrs. Jane Redpath.
(g) " " $\$ 100$ and free tuition for four years-Sir Donald Smith.
(h) " " $\$ 120$-Donor, Sir Donald Smith.
(i) " $\$ 125$-Donor, George Hague, Esq.

## SUPPLEMENTAL EXABINATIONS.

## PASSED.

September to Christmas, 1896.
(a) Supplemental Sessional.

Third Year.-Du Boyce, Hinds.
Second Year.--Moore, Stephens, Dover, Steen.
(Morrin College.)—Reid.
First Year.-De Witt, Douglas Holland, Millar, Armstrong, Dorion.
(b) Supplemental in one Subject.

Srcond Year.-Bates, Colby, Maclaren, Place, Prudham, Ross, Ship, Thomas, Todd, Reynolds.
(Morrin College.)-Stuart, Meiklejohn.
First Year.-Burton, Cumming, Stewart, McDougall, Burke (E.), Dixon, Kings. bury, Munroe, Gardner, Reynolds (E. E.)
(Stanstead Wesleyan College) -Howden.
SESSIONAL EXAMINATIONS, 1897.
McGILL COLLEGE.
(Partual students are indicated by asterisks.)
greek.
Fournth Year.-Class I.-MacMillan, Henderson, Ker. Class II.-Smitl, Steacy Willis, Mallinson, McBurney (Chas.), Ives. Class Ill.-Wyman (H. B.), Campbell (E. M.), Ross, McLean, DuBoyce.
Third Year. - Class I.-Munn, Carr, Meyer, Grace, Tarlton. Class II.—Heine, Campbell, Gardner, Worth. Class 1II.-Shaw, Biyth, Bourke-Wright, Ross, Steen, Stephens.
Prizes :-Munn and Carr.

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Prizes:-
First Year.-

Second Year.-Class 1.-Wainwright, Robertson; McLeod and Patch, equal ; Bruce and Edward, equal ; *Mitchell (K.), Hunter Keith, Cotton, Holiday, Laurie, Rice ; Thompson and Ells, equal ; Potter, Brown. Class II.Goodall and Henderson, equal ; McKenzie, Duguid; Johnson and Lundie, equal ; McClung, McDougall; Gardner and Le?, equal; Bates and Hardisty and McDonald, equal ; Millar and White, equal. Class 1II.Parks ; Munroe and *Heeney, equal ; Stewart ; Holland and Cumming equal ; Armstrong and Hurst, equal ; Uixon.
Prizes :-Wainwright, Robertson.
First Year.-Class I.-Nutter, Ogden, Forbes; Jackson and Smith (L.) and Brooks, equal ; Hardy, Crowell ; Cohen and Dixon, equal; Ainley and Sever, equal; Chamberlain and Garlick, equal ; Goodhue. Class II.Cochrane and Elder and Ritchie and Woodley, equal ; Mackinnon, Cleghorn, Rowell ; Ells and Walker (H.), equal ; Johnson and *Mitchell (S.) and Holman, equal ; Rowat, Reford ; Jeakins and Scott (H. E.) and Scott (G.W.) and Lundie, equal ; Weinfeld. Class III.--Sangster and *Davies, equal ; Grier, Perley, Smith (F. N), Buckham, Cooke; Baker and Tiffin, equal ; Ireland and Anderson, equal.
Prizes:-Nutter, Jackson, Smita (L.), Brooks.

## LATIN.

Fourth Year.-Class I.-MacMillan, Henderson, Howard. Class II.-Ker, Trenholme, Steacy, Rowat, Campbell (E. M.), Macfarlane, Reynolds, McBurney (Chas.). Class III.-Russel ; Watters and Wyman H. B., equal ; Browne, Stevenson ; Hinds and McBurney (E. E.), equal ; Rgan, DuBoyce, Stephen.
Third Year.-Class I.-Carr, Munn, Place, Dalgleish, Tarlton; Meyer and Paterson, equal ; Gilday and Vineberg, equal ; Pearson, McConnell, Worth. Class II.-Bourke-Wright and Cameron, equal ; Leney, Todd, Reynolds, Seifert, Ross, Gardner, McLeod. Class III.-Steen; McGregor and McLaren and Shaw, equal ; Walker, Colby, Dover, Jordan, Costigan, Thomas, Moore, Bishop.
Prizes:-Carr and Munn.
Second Year.-Class I.-Robertson, Wainwright, Patch, Edward; Bruce and MeGill and McLeod, equal ; Hunter, Brown, Thompson, Goodall ; Potter and Scrimger, equal. Class II.-Hardisty and Keith and White, equal ; Holiday and King and Laurie and Radford and Rice, equal; Ells and McDonald, equal ; McClung; Lundie and McDougall, equal ; Henderson; Brodie and Duguid, equal ; Dixon and Reynolds, equal ; Finley and Reid, equal. Class III.-Holland; Gardner and Hurst and Johnson (H.), equal ; Redpath, Lee, McKenzie; Cumming and Johnson and Parks, equal ; Munroe and Stewart, equal ; Bates, Armstrong, Mackay.
Prizes:-Robertson and Wainwright.
First Year.-Class 1.-Dey, Nutter ; Chamberlain and Forbes and Marcuse, equal ; Broeks and Jackson and *Redpath, equal ; Dixon and Holnan
and Smith (L.), equal ; Crowell and Mitchel' (S.), equal. Class 11.-Ainley and Garlick and Goodhne, equal ; Walker (H.), Ogden ; Cochrane and Jeakins and Sever, equal ; Hardy, Cohen ; Elder and Weinfeld, equal ; Scott (G. W.), Willis ; Ells and Rorke and Scott (H.), equal Shaw. Class I1I.-Rowell and Woodley, equal ; Johnson; Lundie ; Reford and Ritchie, equal; Mackinnon and Sangster, equal; Davies and Kerr, equal ; Horsfall, Grier ; Baker and Charters and Cleghorn, equal ; McCormick, Cooke ; Walker (J.) and Skinner equal; Perley and Tiffin, equal ; Buckham, Shepherd, Ireland, McInnis, Mulholland ; Rowatt and Smith (F. N.), equal.
Prizes:-Dey and Nutter.
MENTAL AND MORAL PHILOSOPHY.
B.A. Ordinary (Moral Philosophy).-Class I.-Reynolds (F.); Ker and Saxe, equal ; Doull and McBurney (E.) and Ross (E.), equalt;'Russel, Howard, Wyman (H. B.) ; Alexander (J. L.) and Campbell (E. M.), equal ; Orack and Rowat, equal ; McBurney (C.) and Wyman (D. B.), equal ; Dowson and Greaves, equal ; Galt ; Blythe and Hendersön and Mallinson and Smith, equal. Class 1I.- Hinds and MacLean (S.) and Trenholme and Willis, equal ; Douglas, Macfarlane; Armstrong and Boyce and Ross (A. R.), equal ; Clarke and Heal and Ives, equal ; Dorman and Stephen, equal ; Ryan and Williams, equal ; Browne ; Holden and Walbridge, equal. Class 11I.-Reid and Watson, equal; Charlesworth, Watters; Bradshaw and McAteer, equal ; Roberts, Brown (W. T.), DuBoyce, Mclean (A.), Monsinger, Brown (A. J.), Stevenson, McGuire, Mair, Moore.
Third Year (Mental Philosophy).-Class 1.-Carr, Paterson, Grace, Place; Duff and Ship, equal ; Campbell (J. A. E.) and Shaw, equal ; Dowson and Heal, equal ; Heine and Jordan and Prudham, equal ; Seifert; Leney and Reynolds (M. E.) and Thompson and Vineberg, equal ; Class II.- Bates and Blythe and MacLeod (H.S.) and Walker, equal : Turner (H. H.) ; Blythe and Gardner, equal ; Turner (W. D.) ; Pearson and Ross (A. B.), equal ; Dalgleish and Williams, equal ; Stephens, Worth; Clarke and Roberts, equal. Class III.-Charlesworth and Colborne and Rowan, equal ; Halpenny (E. W.), Runnells, Costigan ; McGregor and Moore, equal ; Mick and Williamson, equal ; Wilkinson, Maclaren, Bishop.
Prize for Honour Work-Patterson.
Second Year (Logic).-Class I.-Robertson (Prize), Wainwright, McLeod, Patch; McClung, Radford; Redpath and Rice, equal ; Brown, McDougall. Dowson and Hunter and Latrie and Munroe and Thompson, equal ; Class II.-Henderson, McDonald, Reid, Edward, McGill; Goodal! and Greaves and Lee and Scrimger, equal ; Bates and Cotton, equal ; Armstrong and Duguid and Finley and White, equal ; Brodie; Ells and Hardisty and Johnson (H.), equal ; McKenzie, McGregor ; Bruce and Keith and King and Potter, equal. C'ass 11I.--Holiday ; Cumming

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Shaw. ; Reford ies and ı, equal ; d Tiffin, watt and
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eod, Patch; 4cDougall. on, equal ; oodal! and pal ; Arm; Ells and Bruce and Cumming
and Gardner, equal ; Rejnolds, Mackay, W clker, Hurst, C ımeron; DeWitt and Johnson (R. D.), equal ; Millar and Parks, equal ; Baker, Dixon, Anderson, Douglas ; Holland and Luntie, equal ; S ewart ; Burke and Dorion and Harding and How len and Mair, equal.

## ENGLISH LITERATURE.

B.A. Oadinary.-Class 1.-Trenholme, Archibald, Kerr, Willis, Holden, Rowat, Russell. Class 1I.-Macfarlane; Mallinson and McMaster, equal; Browne (J. G.) and Ives, equal ; Henderson, Wyman (H. B.) ; Howard and McBurney (C.) and Ryan, equal ; Smith, Boyce; Campbell and Galt, equal ; Armstrong ; MacLean (S.) and Reynolds, equal. Class III.*Alexander and Stevenson, equal ; Watters, *Bradshaw, Watson, Douglas ; McBurney (E.) and Ro3s, equal ; Du Boyce ; Hinds and *McAteer, equal ; *Blythe ; *Reid and Steptien, equal.
english literature and rhetoric.
Third Year.-Class 1.-Bourke-Wright (Prize), Duff, Heine, Walker, McLaren. Class 11.-Thomas, Tarlton, Bishop; *Cairns and MacLeod, equal. Class 1II.-Blythe and Steen, equal; Moore and *Rowan, equal; *Bartlett.

## MODERN HISTORY.

Second Year.-Class I.-Robertson (Prize), Patch, Wainwright, Redpath, Menderson; Cotton and Edward, equal ; Bruce, Gardner, McLeod, Hardisty, Brown and Duguid and McClung, equal; Holland; Lee and Scrimger, equal. Class 11.-Ells and Laurie, equal ; Hunter and Keith and Lundie and Reid and Reynolds, equal ; Radford, Johnson (D〕 L.) ; Hurst and King and Rics, equal ; Potter ; Bates and Goolall and Holiday, equal ; DeWitt, McDonald ; Baker and Stewart, equal ; Dixon, Burke, Millar, White, McDougall. Clıss III.-McGill, Oumming, Parks; Johnson (H.) and Thompson, equal ; Dorion and Mackenzie, equal ; Finley, Brodie, Douglas; Howden and Munroe, equal.

ENGLISH LITERATURE.
Filst Year.—Class 1.-Nutter (Prize), *Mitchell (S.), Marcuse (Prize), Jacksom, Brooks, Woodley, Lundie, Scott (G.), Rorice, Coben. Class II.Garlick, Sever, Dey, Dixon, Horsfall, Ritchie, Cochrane, Crowell, Chamberiain, Grier ; Rowell and Weinfeld, equal ; Holman. Class III.Charters; Baker and Walker (H.), equal ; *Davies, *Walker (J.) ; Jeakins and Smith (F. N.), equal ; Reford ; Forbes and Hardy and *MacInnes, equal ; *Secord and McCormick, equal ; Tiffin and Willis, equal ; Shaw, Johnson, Sangster; Cooke and Ness, equal ; Ells and Kerr, equal ; Cleghorn and Smith (L.), equal ; *Hopkin and McKinnon and Perley, equal; Skinner, Goodhue, Scott (H.), Burke (M), Elder, *Anderson (G.), *Dickson, Ireland, Ogden, *Greig.
B. A. Ordinary.-Class $I$.-Ives and Ker and Rowat and Reynolds, equal ; Campbell (E. M.) ; Boyce and McBurney (C.) and Macfarlane and Moore and Smith and Stevenson and Wyman (H. B.), equal. Class 11.-Donglas and Willis, equal; Howard and McBurney (E. E.) and Trenholme and Wattera, equal. Class 111.-Brown and Henderson and Ross, equal ; Ryan and Stephen and Watson, equal ; Hinds and Russel, equal.
Third Year.-Class 1.--Brooks; Gardner and Gilday, equal; Leney and McConnell and Meyer and Thompson, equal. Class II.-Dalgleish and Duff and Prudham and Reynolds and Thomas and Todd and Turner (II. H.) and Turner (W. D.), equal ; Bates and Jordan and McGregor and Vineberg, equal. Class 11I.-Colby and Dover and Grace and Pearson and Ship and Tarlton, equal ; Bishop and Place and Steen, equal.

ASTRONOMY AND OPTICS.
B. A. O minary.-Class 1.-K.r and McBurney, equal ; Armstrong and Ives and McKay and Rowat and Russel ani Stevenson and Trenholme and Wyman (H. B.), cqual; Boyce and Cameron and Dugglas, equal. Cl'uss II.-Watson and Ryan, equal. Class III.-Moore and DuBoyce, equal.
Third Year.-Class I.-Brook; and Leney, equal ; Prudham and Turner (W. D), equal ; Dalgleish and Gardner and Ship, equal. Class 11.-McGregor and McLeod and Place, equal; Tarlton and Thomas and Turner (H. F.) and Vineberg, equal. Cluss III.-Larmonth, Costigan ; Bishop and Moore, equal.

EXPERIMENTAL PZIYSICS.
B.A. Ordinary.-Class II.-Armstrong and Stephen, equal. Class III.-Mackay, Cameron.
Laboratory Course.

Class I.-Boyce and Howard and Mackay and Cameron and Stephen, equal ; Armstrong and Browne and Ives and Ker, equal.

Third Year.-Class I.-Brooks. Class 1I.-Thompson.

## Laboratory Course.

Class I.-Brooks and Thompson, equal.

## geometry and arithmetic.

Second Year.-Class I.-Brown and Bruce and Edwards and Ells and McKenzie, and Robertson, equal ; McCiang and McDonald and Millar and Patch, equal ; Cotton and Gardner and Henderson and Keith and McLeod and

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ner (W. D), -McGregor and Turner Costigan ;
I.-Mackay, and Stephen, ar and Patcl. McLeod and

Rice and Thompson and White, equal. Class II.-Duguid and Goodall and Hardisty and Hunter and Johnson (R D. L.) and King and Radford and Scrimger and Wainwright, equal ; Armstrong and Bates and Brodie and Holiday and Laurie and Lee and McDougall and McGill and Paterson, equal. Class III.-Burke and De Witt and Dixon and Lundie and Mackay and Putter, equal ; Baker and Holland and Johnson (H.) and Stewart and Parks and Reynolds, equal ; Cumming and Dorion and Finley and Hurst, equal.

First Year.-Class 1.- Urowell and Ells and Nutter, equal ; Ainley and Brooks, and Chamberlain and Dey and Forbes and Hardy and Johnson and Rowell and Smith (L.) and Sangster, equal ; Buckhimi and Dixon and Elder and Ogden and Rowat and Scott (G.W.) and Weinfel 1, equal. Class I1.Anderson and Cleghorn and Cochrane and Cohen and Cooke and Grier and Holman and Lundie and Marcuse and Reford and Ritchie and Sever and Walker (J.J.), equal ; Burke and Charters and Garlick and Goodhue and Horsfall and Jackson and Jeakins and Perley and Rorke and Scott (H. E.) and Walker (H.) and Willis and Woodley, equal. Class III.Browne (J.) and Greig and Ireland and Mackinnon and Mitchell (W. G.) and Ness and Skinner and Tiffin, equal; Davies and Dickson and Kerr and McCormick and Shaw an I Shepherd and Smith (N.), equal.
trigonometry and algebra.
Second Year.-Class I.-Robertson; Edwards and Henderson and McClung, equạl ; Bruce and Ells and Johnson (H.) and Keith and McKenzie and Patch, equal. Class 11.-Armstrong and Brown and Holiday and McGill and Paterson, equal ; DeWitt and Gardner and Goodall and

- Hunter and Laurie and McDonald and McLeod and Millar and Scrimger and Thompson and Wainwright and White, equal. Class III.-Bates and Brodie and Burke and Cotton and Cumming and Dixon and Finley and Hardisty and Johnson (R. D. H) and Lee and Munroe and Rice and Mackay and Radford, equal ; Dorion and King and McDougall and Parks, equal ; Baker and Douglas and Duguid and Hurst and Lundie and Potter, equal.

First Year.-Class I.-Orowell ; Deyand Smith (L.), equal ; Scott (G.W.), Brooks Nutter, Chamberlain, Ainley, Holman, Johnson; Cohen and Scott (H.), equal ; Rowat, Ritchie, Ells, Smith (F.N.); Cochrane and Rorke, equal. Class II.-Dixon and Garlick, equal ; Goodhue and *Walker (J.) and Marcuse, equal ; Hardy and Buckham, equal ; Jeakins, Weinfeld, Willis; Grier and Lundie and Sever, equal ; Cooke and Shaw, equal ; Walker (H.) ; Rowell and Sangster, equal; Ness. Class 111.-Skinner, Elder and Greig, equal ; McCormick, Anderson, *Davies; Woodley and Jackson, equal ; Ireland, Charters, Dicksoa, McKinnon, Forbes, Horsfall; Cleghorn and Mitchell (W. G.) and Harrower, equal ; Kerr, Baker, Tiffin, Burke, Reford.
honour examinations in mathematics and natural philosophy.
B.A. Honours.-First Rank.-Mackay (Malcolm). First Rank.-Cameron (Mary T.).

Third Year.-First Rank.-Brooks (Harriet) (Prize).
Second Year.-First Rank.-McClung (Robert K.) (Prize); Bruce (Guy O. T.) (Prize), Edward (Archibald); Second Rank.-Johnson (H.).
First Year.-First Rank.-Nutter (Prize); Johnson (J. G. W.) (Prize). Second Rank.-Dey.

## french.

B.A. Ordinary.-Class 1.-Archibald, Rowat, Young, Hinds, Smith; Rugg and Doull, equal. Class 1I. - Wyman (H. B.), Campbell, DuBoyce; McMaster and Ross, equal ; Macfarlane.
Third Year.-Class 1.-Colby, Seifert ; Munn and Ship, equal. Class 11.-Brooks Vineberg, Cameron, Gardner, Leney ; Place and Todd, equal ; Jordan, Tooke. Class 11I.-Tarlton ; Pearson and McConnell, equal ; Maltby, Reynolds, Steen, Dover ; Costigan and Gilday, equal ; Larmonth.

Second Year.-Class 1.-Holiday, Potter, Finley, Johnson (H.), Wainwright, *DeCourtenay. Class 11.-Cotton and Cumming, equal ; Scrimger and Hunter, equal ; Redpath and Brodie, equal ; Henderson, Laurie, Johnson (R. de L.), McDougall, Burnett ; Thompson and White, equal ; Radford and Patch, equal ; Armstrong; McGill and Bruce, equal ; McDonald, DeWitt ; Douglas and King, equal; Duguid and McClung and Dorion equal ; Brown ; Lundie and Ells, equal ; Howden ; Dixon and McKenzie, equal ; Hurst and Gardner, equal. C'ass 111.-Reynolds and Paterson, equal ; Reid and Hardisty and Mackay, equal ; Parks, Baker, Burke.
First Year.-Class 1.-Dey, Goodhue, Nutter. Class 11.-Garlick, Walker; Elder and Kerr and Marcuse and Sever, equal; Crowell ; Smith (L.) and Cochrane and Dixon, equal ; Mitchell (S.) and Sangster, equal ; Weinfeld; Rorke and Lundie and Brooks, equal ; Cooke and Davies, equal ; Kowell and Jackson, equal ; Ainley and Johnson, equal ; Chamberlain, McCormick and Mackinnon and Milis, equal ; Willis and Scott (H. E.) equal ; Shepherd. Class 111.-Baker and Cohen and Tiffin, equal; Ells and Ritchie, equal ; Cbarters and Cleghorn and Reford and Rowat, equal; Greig and Ness and Perley and Grier, equal; Buckham and Holman, equal ; Burke ; Mitchell (W. G.) and Scott (Geo. M.), equal ; Smith, (F. N.) and Walker (Jno. J.), equal.
german.
B. A. Ordinary.-Class 1.-Young, Rugg, Cameron. Class 11.-Reynold ${ }_{8}$ Willis. Class III.-McBurney.

Third Year.-Class 1.-Cameron. Class II.-Grace and Munn and Colby, equal,

Second Year.Millar

Sccond Year,equal ; III.-

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B.A. Ordinary.

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First Year.Jeakins, son, An Roberts
B.a. Ordinary. Smith, son, Ma Willis, son, W Boshart

Third Year.- $C$ nolds, and Do Worth, Walker, equal.

Sbcond Year.Patch ( and Rei and Wa and Hu

Second Year.-Class 1.-Robertson, Edwards. Class 11.-None. Class 111.Millar (W. K.), Goodall, Bates.

Sscoond Year.-Donalda Dept.-Class I.-Finley ; Reynolds and McGill and King, equal ; Radford, Scrimger. Class 1I.-Johnson, Brodie, Reid. Class III.-Howden.

First Year.-Class I.-Forbes and Weinfeld, equal ; Hardy. Class II.--Shaw Cohen. Class III.-Skinner.

First Year.-Donalda Dept.-Class 1.-- Marcuse, Dey. Class II.-Brown, Rorke. Class 111.-Willis, Kerr.
semitic languages.
B.A. Ordinary.-Class I.-Wyman (D.B.), Mallinson. Class II.-MacLean (S.),

Third Year.—Class I.-Meyer (J.B.), (Prize), Prudham. Class III.—Bradshaw, Bates (G.E.), Alexander (J. L.), Lough.

Second Year.-Class I.-MacLeod (J. B.), (Prize), Rice, Charlesworth. Class II.--Blythe, Heal, Keith. Class 1II.-Lee, MeGregor, Holiand, Munroe, Boshart, Stewart (D.), Mick, Harding, MacLean (A. S.), Walker (P. A.).

First Year-Class 1.-Bartlett, Secord, Scrimger. Class II.-Halpenny, Jeakins, Rowan. Class 1II.-Anderson (T. J.), Wright, Rey, Williamson, Anderson (R. S.), Woodley, Ireland, Campbell, MacInnes, Horifall, Roberts, Runnells, Stephens (J. G.), Brunton.

## GEOLOGY.

B.A. Ondinary.-Class 1.--Campbell (R. P.), Walbridge McBurney (Chas.) Smith, Reynolds, Brown, Campbell (E. M.), Saxe, McLean (S.), Henderson, MacFarlane, Hinds, Howard. Class II.-Ryan, Ross (E), Russell, Willis, Watters, Reid, Douglass, Trenholme, Stevenson, Dorman, Mallinson, Watson, McBurney (Edith), McAteer. Class III.-Ross (A. R.), Boshart.

ZOOLOGY.
Third Year.-Class I.-Campbell (J. A. E.), Paterson, Jordan, Pearson, Reynolds, Munn, Seifert, Thomas, Turner (W.D.). Class II.-Dalgleish, and Dover, equal ; Heine, McGregor, Grace, *Down, Turner (H. H.), Worth, Colby. Class III.-Steen, ${ }^{*}$ Bartlett, ${ }^{\bullet}$ Cairns, Blythe; Bates and Walker, equal ; Ross, Sterhens, Shaw ; *Campbell (J. D.) and Larmonth, equal.

Botany.
Second Year.-Class 1.-Holiday (Prize) and *Paterson (C. S.), equal ; *Going, Patch (Prize). McGill, McDongall ; Hendersor and King and McKenzie and Reid, equal ; Keith ; Armstrong and Cotton and Radford and Rice and Wainwright, equal ; Duguid, Bates. Class 1I.-Brown and Brodie and Hurst and Parks and Reynolds and Scrimger, equal ; Potter;

Holland and McLeod and Thompson, equal ; Douglas and $*$ McGregor and Robertson, equal; Burke and Lundie and Munroe, equal ; Murphy (L. T.), Ells; Cumming and Dorion and Hunter, equal ; Laurie ; *Anderson and Finley and De Witt, equal. Class I11.-Baker and Steen, equal ; Hardisty ; Hector and Johnson (H.) and Lee and Mackay, equal ; McDonald, Stewart, Millar.
Third Year.-Class 1.-Paterson (R. C.), Duff, *Travis, Campbell (J. A. E.), Carr ; Colby and *Radford, equal ; Cameron (F. M. T.). Class 11.*Going, Duver. Class I11.-Maclaren, Bourke-Wright.
B.A. Ordinary.-Class 1.-Campbell, Lyman, Watters, Howard.
chemistry.
First Year.-Class I.-Cochrane. Class II.-Scott (G. W.), Rowan, Secord Williams. Ciass III.-Scott (H. E.), Charlesworth, Boshart ; Colborne and Heeney, equal ; Blythe, Ells, Elder ; Cleghorn and Mick and Runnells equal.

DONALDA PRIZES FOR PHYSICAL CULTURE.
Graduating Class.-Rigg, Alice.
Undergraduates-Finley, Kathleen.

MORRIN CULLEGE.

Greek.--Class 1.-Seifert.
Latin.-Class I.-Seifert. Class 111.-Jackson.
Trigonometry and Algebzi.-Class I.-Seifert. Class 1II.-Jackson and Pocock, equal.
Grometry and Arithmetic.-Class II.-Pocock and Seifert, equal. Class 1II.Jackson and Wheeler, equal.
Logic.-Class 1.-Seifert. Class II.-None. Class III.-Pocock, Jackson, Tanner.
Modern Hıstory.-Class 1.-Seifert. Class 1I.-Jackson, Tanner. Class 111Wheeler, Pocock.
Frenci.-Class I.-Ssifert. Class 11.-Jackson.
German.-None.
Hebiew.-Secovd Year.-Class II.-Wheeler (J.), Pocock (Ch.).

## STANSTEAD WESLEYAN COLLEGE.

intermediate examination.
Greek.-Class J/I.—Rugg
Latin.-Class 111.-Rugg.
Geometry and Arithmetic.-Class III.--Rugg.
Trigonometri and Algebza.-Class 11.-Rugg.
Logic.-Class I.-None. Class 1I.-Rugg.
Modern History.-Class 11.-Rugg.
French.-Class III.-Rugg

Greek.-Class Lativ.-Class Class.
Geometry ant
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Trigonometry Class
English Liter. Class
Frexch.-Clasi (M), ei

German.-Clas equal.
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Turnbull, Joh in Th

Angel, Frederi Atkinson, Don Atkinson, Will Butler, Percy. alogy.
*McGregor al ; Murphy 1; Laurie ; $r$ and Steen, skay, equal ;
(J. A. E.), Class 11.-
wan, Secord rt ; Colborne and Runnells
rackson and

Class 11I.:k, Jackson,

Class 111-

FIRST YEAR.
Greek.-Class 1.-Hill (W.), Flint (R. Á.).
Latin.-Class I.-Hill (W.). Class II.-Flint (M.) and Flint (R), equal. Class 11I.-Hill (M.).
Geometry and Arithmetic.-Class 1.-Hill (W.), Flint (M.). Class 11.Flint (R.) ; Dixon and Hill (M.), equal.
Trigonometry and Algebra.-Class I.-Flint (M.). Class II.-Flint (R.). Class 1II.-Dixon, Hill (W.), Hill (M.).
English Literature.-Class 1.-Fliat (M) and Hill (W.) and Hill (M.), equal. Class II.-Flint (R.).
French.-Class II.-Hill (W.). Class III. - Flint (M.) and Flint (R.) and Hill (M), equal.

German.-Class 11.-Hill (W.). Olass III.-Fliat (M.) and Flint and Flint (M.). equal.

Passed the Sessional Examination, Hill (W.), Flint (M.), Flint, (R.), Hill (M.).

## FACULTY OF APPLIED SCIENCE.

## GRADUATING CLASS, 1896-97.

Archibald, William Munros.-Second Rank Honours in Natural Science,
Bell, John Wainwright.-Second Rank Honours in Natural Science ; Honours in Metallurgy.
Bovey, Edward Palk.-Honours in Hydranlics.
Macbean, Stanley Lorne.-Honours in Electrical Engineering.
MoKinnon, George Dovglas.-Governor General's Silver Medal; Honours in Hydraulics, Dynamics of Machinery and Mechanical Engineering Laboratory Work; British Association Prize of $\$ 25$; Prize for Thesis on Hydraulic Press.
MacLeod, George Roderick.-Roderick Prize for Thesis on Belting.
Ogllyie, William Morley.-Prize for Thesis on Survey of N. W. T. with Gold Mining Notes.
Stover, Russell Wellesley.-British Association Guld Medal and Exhibition of $\$ 50$; Honours in Hydraulics, Electrical Engineering and Electrical Laboratory Work ; Prize for Thesis on Hydraulic Press.
Thomson, Henry Neleis.-Second Rank Henours in Natural Science; Honours in Metallurgy ; Prize for Thesis on the Mining and Dressing of Asbestos.
Turnbull, John Moncrieff.-First Rank Honours in Natural Science; Honours in Thermodynamics and Metallurgy.

## THIRD YEAR.

Angel, Frederick W.-Prize for Mechanical Drawing.
Atkinson, Donald C.T.-Prize for Surveying Field Work.
Atkinson, William J.-Prize for Thesis on Hoisting Rock from Underground.
Butler, Percy.-Prizes for Chemical Laboratory and for Determinative Mineralogy.

Cape, Edmund.-Prize for Testing Laboratory Work.
Davis, Angus W.-Prize for Mining Drawing.
Eaves, Edmund.-Prize for Electrical Laboratory
Laurie, Albert.-Prize for Machine Design.
MacLean, Thomas A.-Prize for Mining.
Maclennan, Frank W.-Prize for Electrical Engineering.
Macphail, William M.-Prize for Thesis on Boston Subway ; Prize for Surveying Field Work.
McCarthy, George A.-Prize for Thesis on Intercolonial Plan \& Notes; Prizes for Mathematics, Physics, Descriptive Geometry, Surveying, Theory of Structures, Mapping, Railway Work, and Cement Laboratory.
Patton, W. H.-Prize for Shopwork.
Scott, Arthur P., B.A. -Prize for Chemistry and Chemical Laboratory.
Thomas, Leonard E. L.-Prize for Dynamics of Machinery.
Waterous, Charles A.-Prize for Thermodynamics.
Young, George A.-Prize for Mining Engineering.
Passed the Primary Examinations.
(In Order of M it.)
civil ent:

Macphail, William M Orwel. I.
Irving, Thomas T., Vernon Riys. Lridga, P.E.I.
Matheson, Ernes ، G., Oyster Bed River, P.E.I.

- Bond, Frank L. C., Montreal.
*Benny, Walter W., D'Aillebout, Que.

ELECTRICAI, ENGINEERING.
Eaves, Edmund, Montreal.
Cape, Edmund, Hamilton, Ont.
Sheffield, Cbarles, Kingston, Ont.
Maclennan, Frank W., Cornwall, Ont.
*Mackie, James D., Kingston Station, Ont.
*Scott, James H., Outremont, Que.
Archibald, Harry P., Antigonish, N.S.
*McLea, Ernest H., Montreal.

MECHANICAL ENGINEERING.
Laurie, Albert, Montreal.
Angel, Frederick W., St. John's, Newfoundland.
Waterous, Charles A., Brantford, Ont.
Thomas, Leonard E. L., Melbourne, Que.
Dean, Bertram D., Hamilton, Ont.
*To pass Supplemental Examination.

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Mackerras, John D, Kingston, Ont.
Davidson, J. Herbert, Montreal.
*McRae, John B., Ottawa, Ont.
*Patton, W. H., Huntingdon, Que.
Reaves, Campbell, Montreal.
*Beatty, David H., Sarnia, Ont.
*Bacon, Frederick T. H., Montreal.
*Simpson, J. Mianley, Stratford, Unt.

## MINING ENGINEERING.

Atkinson, Donald U. T., Etchemin, Que.
MacLean, Thomas A., Charlottetown, P.E.I.
Davis, Angus W., Montreal.
*Butler, Percy, Montreal.
Yonng, George A., Kingston, Ont.

* Ainley, Charles M., Almonte, Ont.
*Atkinson, William J., Glenboro, Man.
*Hillary, George M., Whitby, Ont.

PRACTICAL CHEMISTRY.
Scott, Arthur P., B.A, Montreal.
Drysdale, George A., Swansea, S. Wales, Eng.

## SEOOND YEAR.

Colpitts, Walter W.-Prizes in Architecture, Descriptive Geometry, Freehand Drawing, Mapping, Physicz, Surveying, Surveying Field Work and Shopwork, 1st Ogilvy Prize.
Hutchinson, William S.--Prize in Chemistry.
Kirkpatrick, Stafford F.-2nd Ogilvy Prize.
McLaren, Archibald J.-Prize in German.
McLean, William B.-Prizes in Descriptive Geometry, Mathematics and Mechanism, 3rd Ogilvy Prize.
Molson, Kenneth.-Wicksteed Bronze Medal.
Whyte, John S.-Prize in Mechanical Drawing.
Passed the Sessional Examinations.
(In Order of Merit).
architectural course.
Colpitts, Walter W., Moneton, N.B.
Hyde, George T., Montreal.
${ }^{*}$ Peden, Frank, Montreal.
*McLeod, Norman M., Montreal.

* To pass Supplemental Examination.

CIVIL ENGINEERING.
Colpitts, Walter W., Moneton, N.B.
Fraser, Charles E., Montreal.
Gagnon, Louis F., Montreal.
*Gough, Richard T., Halifax, N.S.

- Van Horne, Richard B., Montreal.


## ELECTRICAL ENGINEERING.

Grier, Arthur G., Montreal.
Shaw, John A., Montrea!.
$\left.\begin{array}{l}\text { Fetherstonhaugh Edward P., Montreal. } \\ \text { Archibald, Ernest M., Halifax, N.S. }\end{array}\right\}$ equal
Pergau, Harry, Lyn, Ont.
Bowman, Archibald A, New Glasgow, N.S.
Fraser, Harold, Brockville, Ont.
*Cornwall, Clement A. K., Asheroft, B.C
*Hyde, James C., Montreal.

MECHANICAL ENGINEERINO.
McLean, William B., Pictou, N.S.
Young, William M., Renfrew, Ont. Burgese, R. Earl, Wolfville, N.S.
Denis, Leopold, Montreal.
Wenger, Edgar ${ }^{T}$., Ayton, Ont.
*Wilson, Robert M., Montreal.
*Dargavel, James S.; Elgin, Ont.
*Hickey, John V., Montreal.
*Whyte, John S., Osgood, Ont. Davidson, William A, Peterboro, Ont.

## MINING ENGINEERING.

Molson, Kenneth, B A., Montreal.
Blaylock, Selwyn G, Danville, Que.
Yuile, Norman M., Montreal.
*Waller, George W., Bartonville, Ont.
*Nicholls, Henry G., Toronto, Ont.
*Preston, John, Toronto, Ont.
*Stevens, Angus P., Dunham, Que.
*Campbell, Norman M., Montreal.
*MacInnes, Heary W, Halifax, N.S.
*Moore, William M., Ottawa, $0 \mathrm{n}^{+}$.
*Henderson, Richard A., Chilliwack, B.O.
*Morgan, Charles B., Hamilton, Ont.
*Bachand, George A., Montreal.
*To pass Supp lemental Examination.

Allen, Samus
Barber, Rene Byers, A rehil Coote, Sydne Gillean, Robe Hamilton, Ge Hill, Lawrene Nelson, Geore Shepherd, $\mathrm{Ha}_{\mathrm{a}}$ Dran
Whiteway, W

## PRACTICAL CHEMISTRY.

McLaren, Archibald J., Montreal. Hutchinson, William S., Montreal.

## FIRST YEAR.

Allen, Samuel J.-2nd Fleet Workshop Prize.
Barber, Rene R-Prize in Descriptive Geometry.
Byers, Archibald F.-2nd Fleet Workshop Prize. Coote, Sydney R.-1st Fleet Workshop Prize.
Gillean, Robert H.-Prize in Chemical Laboratory Work.
Hamilton, George M.-Prize in Descriptive Geometry.
Hill, Lawrence.-1st Taylor Freeh ind Drawing Prize.
Nelson, George J.-Prize in Chemistry.
Shepherd, Harry L.-Prizes in Mathematics and Mapping; 2nd Taylor Freehand
Drawing Prize.
Whiteway, Willlam V. E.-Prize in English.

## Passed Sessional Examinations.

(In Order of Merit).
Shepherd, Harry L., Brockville, Ont.
Gillean, Robert H., Montreal.
Nelson, George J., Montreal.
Kobertson, Philip W. K., Mexico City, Mexico.
Allen, Samuel J., Maitland, N.S.
Smith, George B., Stratford, Ont.
Cowans, Frederick, Montreal.
Callaway, Frederick W., Minneapolis, Minn., U.S.A.
Ewart, George R., Kilauea, Kanai, Hawaiian Islands.
Barber, Rene R., Georgetown, P.E.I.
Hamilton, George M., Peterboro, Ont.
Hamilton, James, Peterboro, Ont, Glasseo, Jack G., Hamilton, Ont. Hill, Lawrence, Montreal. Duncan, Gailen R., Montreal. Walker, Frank W., Montreal. Arkley, Lorne M., East Ang 1s, Que. Ogilvie, Norman C., Montreal.
*Miller, Angus K., Bridgeburg, Oat.
*Maclaren, George McG., Ottawa, Ont. Corriveau, Rajul de B., Iberville, Que. Donaldson, Hugh W., Hamilton, Ont.
*Montgomery, George, Morri sburg, Ont.
*Fraser, John W., Charlottetown, P.E.I.
*Neville, Thomas P. J., Halifax, N.S. Sise, Paul F., Montreal.

To pass supplemental examination.

*St. George, Harry L., Montreal. *Byers, Archibald F., Gananoque, Ont.<br>*Percy, Howard M., Montreal.<br>-Whiteway, William V. E., St. Johns', Newfoundland.<br>*Macmaster, Arthur W., Montreal.<br>* Cary, George M., Goderich, Ont.<br>*Coussirat, Henri A., Montreal.<br>*Osborne, J. Ewart, Toronto, Ont.

## standing in the several subjects.

history of architecture.
Second Year.-Class I.-Colpitts and Fraser (C. E.) and Gagnon and Hyde (G. T.) and Peden and Staveley and Van Horne, equal. Class II.McLeod (N.). Class III.-Gough and Parizeau, equal.

## ENGLISH.

First Year.-Class I.-Whiteway, McDonald (W.), Howard (R. F.), Hearn, Fraser (John W.), Ewart, Cary, Reeves (J. D.). Class II.-Arkley, Shepherd ; Allen and Robertson, equal ; Coote and Glassco, equal ; Forman; ('allaway and Sise (P.), equal ; Smith (C.E.) ; Barber and Nelson, and Ogilvie (N. C.), equal ; Maclaren (G. McG.) and Miller (A. K.), equal ; Fournier ; Cameron and Smith (G. B.), equal ; Donaldson and Gillean, equal; Hamilton(J.). Class III.-Cowans, Montgomery, Pyke, Watson, Walker, Neville, Hamilton (G. M.), Byers ; Hatchette and Osborne, equal; Duncan, Lacroix.

## french.

Second Year.-Class I.-McLean (W. B.). Class II.-Fetherstonnaugh, Yuile, Hyde (G. T.), Grier. Class 111.-Peden, Archibald (E. M.); Hoore (W. M.) and Stevens, equal ; Hickey, Young (W. M.); Playlock and Van Horne, equal ; Hutchinson, Pergau; Dargavel and̉ Hyde (J. C.), equal; Burgess, Fraser (H.), McMillan, Wilson, Henderson, McLeod (N.).

First Year--Class I.-Hearn. Class II.-Glassco, Cary, Nelson, Duncan. Class 111.-Arkley and Gillean, equal ; Cowans, Montgomery; Barber and Walker, equal ; Ogilvie (N. C.), Shepherd, Allen; Byers and. Donnelly and Smith (G. B.), equal ; Neville, Watson, Hamilton (G. M.), Sise (P.), Howard (R. F.), Hill, Yorman, Donaldson.

GERMAN.
Second Year.-Class 1.-McLaren (A. J.); Fraser (C. E.) and Shaw, equal; Colpitts and Whyte, equal. Class I1,-Wenger, Gough, Bowman. Class III.--Preston and Waller, equal ; Morgan, Davidson (W.A.), Nicholls.

First Year.-Class I.-None. Class II.-Miller (A. K.), Millar (J. L.), Robertson, Callaway. Class III.-Maclaren, Cameron, Pyke, Osborne, Whiteway, Ewart.

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## mathematics.

Third Year.-Class I.-McCarthy, Eaves, Cape, Macphail, Sheffield, Irving. Class II.-MacLean (T. A.) and Thomas, equal ; Dean, Lanrie, Atkinson (D. C. T.); Angel (F. W.) and Young (G. A.), equal ; Davis, Waterous, Beatty, Matheson, Maclennan. Cluss III.-Butler, Reaves (C.), Hillary ; Bond and McLea, equal ; Ainley and Atkinson (W. J.) and Mackerras, equal ; Archibald (H. P.) and Davidson (J. H.) and Scott (J. H.), equal ; McRae.

Second Year.-Class I.-McLean (W. B.), Grier, Molson. Class II.-Burgess; Colpitts, Shaw, Hyde (G.), Young (W. M.), Denis (L.), Arehibald (E. M.), Blaylock, Fetherstonhangh, Pergau. Cl css /1I.-Fraser (C. E.), Fraser (H.); Dargavel and Davidson (W. A.), equal; Gagnon and Stevens and Yuile, equal ; Ewan, Waller, Wenger, Hyde (J. C.), Nicholls, Cornwall, Bowman, MacInnes, *Wilson.

First Year.-Class 1.-Shepherd, Smith (G. B.), Robertson, Gillean. Class II.Allen, Hamilton (J.), Cowans, Nelson, Hamilton -(G. M.), Callaway, Ewart, Glassco, Percy, Barber, Hill, Ogilvie (N. C.). Class III.Walker, Donaldson, Uorriveau, Duncan, Arkley, Sise (P.), *Neville, Fraser (J. W.) ; *Maclaren (G. McG.) and *Montgomery, equal ; *St George, + Miller (A. K.).
pHysics (Theoretical and Prectical).
Third Year.-(Electrical Engineering Course).-Class 1.-Cape,Sheffield, Mactennan, Archibald (H. P.). Class II.-Eaves, Simpson (J. M.). Class III. -Scott (J. M.) and Mackie, equal; McLea. (Civil, Mechanical, Mining and Chemistry Courses).-Class 1.-McCarthy, Irving. Class II.Laurie, Macphail; Davis and MacLean (T. A.), equal; Atkinson (D. C. T.), Butler; Mackerras and Waterous, equal ; Angel (F. W.). Class III.-McRae, Young (G. A.), Bacon, Davidson (J. H.), Patton, Dean, Atkinson (W. J.), Hillary, Thomas, Ainley ; Reaves (C.) and Matheson, equal.
Second Year.-Class I.-Colpitts, McLean (W. B.). Class II -Grier, Blaylock, Fraser (C. E.), Shaw, Archibald (E. M.), Hutchinson, McLaren (A. J.), Wilson, Scott (A. P.), Molson (K), Peden, Payne. Class III.-Young (W. M.), Van Horne, Whyte (J. S.), Denis (L.), Gagnon, Cornwall, Fetherstonhaugh, Preston, Wenger, Yuile, Hickey, Gough, Burgess, Campbell (N. M.), Bowman, McMillan, Henderson, Waller, Moore (W. A.) Morgan, Nıcholls, Hyde (G. T.), Corrivean, Davilson (W. A.), Bachand Fraser (H.), Hyde (J. C.), McLeod (N.), Moore (W. M.).

## CHEMISTRY.

First Year.-Class I.-Nelson, Gillean, Byer', Robertson, Shepherd. Cliss I1.-O sborne, Cowans, Alle e, Scott (G. W.), Duncan, Glassco, Hamilton (J.), Ewart, Barber, Hill, Miller (A. K.), Fraser (John W.); Hearn and
4.), Robertson,
e, Whiteway, wman. Class .A.), Nicholls.
and Hyde Class II.-
F.), Hearn, II.-Arkley, assco, equal ; rand Nelson, .. K.), equal ; and Gillean, yke, Watson, borne, equal;
raugh, Yuile, E. M.); Moore Playlock and Hyde (J. C.), McLeod (N.).
son, Duncan. nery ; Barber
Byers and. illton (G. M.),

Shaw, equal ;

McDonald (W.), equal ; Ogilvie (N. C.); Donaldson and Maclaren (G. McG.), equal ; Arkley and Walker, equal. Class III.-St. George ; Callaway and Toole, equal : Forman, McMaster, Sise (P.), Smith (G. B.); Corriveau and Hamilton (G. M.), equal ; Whiteway, Montgomery, Cary, Neville.

> Chemistry (Inorganic).

Fourth Year.-Class 1.- None. Class 11.-Suter.
chemistry (Organic).
Third Year.—Class I.—Scott (A. P.). Clasq 11.-None. Class 111.-Drysdale.
Second Year.-Class I.-McLaren (A. J.), Hutchinson. Class II.-None. assaying.

Fourth Year.-Class 1.-Thomson (H. N.), Bell, Turnbull, Archibald (W. M.). Clays II.--Reinhardt, McDougall, Leach, Denis (T.). Class III.Rutherford (S. F.), Dougall.

## metallurgy.

Fourth Year.-Class I.-Turnball, Thomson (H. N.), Bell, Archibald (W. M.). Class II.-Suter, Denis (T.), Reinhardt. Class III.-Rutherford (S.F.), O'Brien, Dougall, McDougall.

Z̈OOLOGY.
Second Year.-Class I.-None. Class II.-Molson. Clays III.-Campbell (N. M.), Blaylock, Praston, Moore (W. M), Yuile, Corriveau, MacInnes.

BOTANY.
Second Year.-Class I.-Hutchinson. Class II.-McLaren (A. J.).

## geology and mineralogy (Ordinary).

Third Year,-Class I.—None. Class II.-McUarthy, Macphail, Matheson, Irving, Young (G. A.), Davis, Rutherford (S. F.), Atkinson (D. C.), MacLean (T. A.), Butler, McD sugall, Ainley. C/ass III.-Atkinsoa (W. J.), Bond.

## geology (Alvanced).

Fourth Year,—Class I.-Turnbull. Class II.-Thomson (H. N.) and Bell, equal ; Archibald (W. M.), McDougall, Reinhardt. Class 11I.-Rutherford (S. F.), Denis (T.), Dougall.
museum work in geology and mineralogy.
Fourth Year.-Class I.-None. Class II.-Turnbull, Archibald (W. M.), Thomson (H. N.), Reinhardt, Bell. Class III.—Denis (T.), Duugall.

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l Maclaren it. George ; aith (G. B.); sery, Cary,

Id (W. M.). ord (S. F.),
-Campbell MacInnes.

Matheson, ion (D. C.), -Atkinsou
.) and Bell, II.-Ruther-

Id (W. M.), Duagall.

## mineralogy (Adianzel.

Fourth Year.-Class 1.-Turnbull. Class 11.-Bell, Thomson (H. N.), Rutherford (G. S.), Suter, Class 1II.-Archibald (W. M.), Dougall, ${ }_{i}$ Denis (T.), Reinbardt.
Third Year.-Class 1.-None. Class II.-Atkinson (D. C. T.), Butler, Young (G. A.). Class I11.-MacLean (T.A.), Ainley, Davis, Rutherford (S. F.).

DETERMINATIVE MINERALOGY.
Third Year.-Butler, Davis, Atkinson (D.O.T.). Class I I.-Rutherford (S. F.), Young (G. A.) ; Ainley and MacLsan (T. A.), equal ; Atkinson (W. J.), McDougall, Reinhardt. Clasy 11I.-Dsnis (T.).
mining.
Third Year.-Class 1.-McDougall, MacLean (T. A.), Hillary. Class II.Rutherford (S. F.), Atkinson (D. C. T.), Davis, Ainley, Reinhardt, Atkinson (W.J.), Young (G.A.), Butler, Denis (T.). Class III.-O'Brien.

## surveying.

Third Year-Class 1.- McCarthy, Davis. Class II.-Macphail, Irving, Atkinson (D. C. T.), Atkinson (W. J.) ; Rutherford (S. F.) and Young (G. A.), equal ; MacLean (T. A.), Bond. Class 111.-Matheson, Ainley, Butler ; Benny and Hillary, equal.
Second Year.-Class 1.-Colpitts, Hyde (G. T.), Molson ; Fraser (C. E.) and MeLeod (N.), equal. Class 11.-Preston; Blaylock and Gough and Yuile, equal ; Van Horne, Bachand, MeMillan. Class 111.-Peden, Gagnon ; Campbell (N. M.) and Morgan, equal ; Henderson; Corriveau and Parizeau, equal ; Moore (W. M.), Nicholls, Waller, Stevens, MacInnes.

## sURVEYing field work.

Third Year.-Macphail, Atkinson (D. C. T.), Rutherford (S. F.), MeCarthy. Class /I.-Davis ; Butler and Matheson, equal ; MacLean (T. A.), Ainley, Irving, Hillary, *Young, Atkinson (W. J.). Class 11I.-Bond, Penny.

Second Year.-Cless I.-Colpitts. Class II.-Corriveau, Bachand: Molson and Waller, equal ; Gough and Peden, equal ; Blaylock and Campbell (N. M.) and Henderson and Yuile, equal ; McLeod (N.), MeMillan, Hyde (G.T.). Class 11I.-Parizeau, MacInnes, Van Horne ; Nicholls and Preston, equal; Morgan ; Fraser (C. E.) and Gagnon, equal ; Stevens, Moore (W. M.).
geodesy.
Fourth Year.-Class 1.-None. Class 11.-MacLeod (G. R.), Ogilvie (W. M.), Newcombe.
freehand drawing.
First Year.-Class I.-Hill ; Coote and Shepherd, equal ; Hyndman ; Gillean and Nelson and Paterson and Whiteway, equal ; Callaway, Scott (H. E.), Byers and Donaldson and Reeves (J. D.) and Smith (G. B.) and Staveley
and Trenholme, equal ; Barber and Cary and Miller (A. K.), equal ; Allen. Class II.-Duncan and Montgomery, equal ; Angel (W.H.) and Hamilton (G. M.), equal ; Burwell and Cowans and Ewart and Howard (R. F.), equal ; Arkley and Cameron and Howard (L. O), equal ; Forman and Fraser (John W.) and Macdonald (R. B.) and Toole and Walker, equal ; Osborne, Smith (C. E.), McDonald (W.), Reford, Ogilvie ; Millar (J. L.) and Sise (P. F.), equal. Class III.-Fournier and Glassco and Maclaren (G. McG.) and Mowat, equal ; Hearn, Neville, Lacroix, Hamilton (J) ; Moncel and Percy and Pyke and Robertson and Watson, equal.
Sgcond Year.-(Architectural Course).-Class 1...Colpitts, Hyde (G. T.). Class II.-Peden, McLeod (N.M.).

## àrchitectural drawing.

Skcond Year.-Class I.-Colpitts, Peden. Class II.—Hyde (G. T.), MeLeod (N.M.) Class 11I,-Gagnon, Gough.

First Yrar.-Class I.-Coote and Staveley, equal. Class II.-None. Cluss III.-Byers.
descriptive geometry.
Third Year.-Class 1.-McCarthy, Irving, Macphail, Matheson. Class 1IBenny, Bond.
Skcond Year.-Class 1.-Colpitts and McLean (W. B.), equal ; Shaw ; Grier and Young (W. M.), equal ; Burgess and Denis (L.), equal. Class II.Blaylock and Peden, equal ; Molson, Hyde (G. T.) ; Whyte (J. S.) and Wilson, equal ; Bachand and Moore (W.A.), equal. Class III.-Bowman and Coussirat and Fraser (H.), equal ; Pergau ; Stevens and Yuile, equal ; Campbell (N. M.), Fetherstonhaugh; Gagnon and Hickey, equal ; Nicholls ; Davidson (W. A.) and Gough and Preston and Waller, equal ; Corriveau, Austin : Dargavel and Fraser (C.E.), equal ; Henderson and Moore (W.M.), equal ; Wenger.
First Year.-Class 1.-Barber and Hamiton (G. M.), equal ; Gillean ; Hamiltod (J.) and Hill and Shepherd, equal ; Nelson ; Coote and Ewart and Smich (G. B.), equal ; Paterson, Allen, Class 1I--Cowans and Montgomery and Walker, equal ; Duncan, Fraser (John W.), Byers, Burwell ; Callaway and Robertson, equal ; MacMa=ter ; Miller (A. K.), and Whiteway, equal ; Hearn and Staveley equal ; Millar (J. L.), Kane, Percy, Mac. ren (G. MeG) ; Cary and Neville, equal, Arkley. Class 1II.-Donalds ı; Hatchette and MeVonald (W.), equal ; Ogilvie ( $\mathbf{N}$ C.) ; Donnelly and Osborne and Sise (P. F. ), equal ; Forman, Glassco, Smith (C. E.), Howard (R. F.), Toole ; Reeves (J. D.) and St. George, equal.

Class I.-Scott (H. E.). Class II.-None. Class I11.-Reford. mapping.

Thind Yras.-(Civil Engineering Course).-Class I.-McCarthy. Class II.Bond, Macphail, Irving, Benny, Matheson.

Second $\mathrm{Y}_{\mathrm{E}}$
Me
Ga

I; Allen. Hamilton .), equal ; 1 Fraser Osborne, and Sise G. McG.) oncel and
т.). Class , McLeod
e. Cluss
ass $1 I$ -
Grier and lass II.J. S.) and -Bowman e, equal ; $y$, equal ; er, equal ; arson and

Hamiltop and Smich omery and. laway and y, equal ;
Nac. ren onalds 1 ; inelly and ), Howard

Second Year.-(Achitectural Course.)-Class I.-Peden, Hyde (G. T.), McLeod. (Civil Engineering Course).-Class I.-Colpitts. Class II.Gagnon; Gough and Van Horne, equal; Fraser (C. E.), Parizeau, (Mining Engineering Course).-Class 1.-Preston, Campbell (N. M.). Class II. - Corriveau; Blaylock and McMillan and Yuile, equal ; Molson Bachand. Class III.-Morgan, MacInnes ; Henderson and Waller, equal ; Nicholls, Moore (W. M).
First. Year.-Class I.-Shepher 1; Callaway and Whiteway, equal; Angel (W. H.) and Coote and Gillean and Hill and Smith (G. B.), equal ; Hyndman and Staveley, equal ; Reeves (J. D. ) ; Byers and Cary and Howard (R. F.) and Nelson, equal ; Montgomery ; Cowans and Hamilton (G. M.) and Trenholme, equal ; Barber and McDonald (W.), equal ; Allen and Arkley and Duncan and Osborne, equal. Class II.-Maclaren (G. McG.) and Smith (C. E.) and Toole, equal ; Cameron and Glasseo, equal ; Donaldson and Hamilton (J.) and Hatchette and Howard (L. O.) and Miller (A. K.), equal ; Kane and Walker, equal ; Ewart and Fournier and Sise (P. F.), equal ; Burwell and Hearn and Millar (J. L.) and Ogilvie (N. C.), equal; Fraser (John W.), Forman ; Lacroix and Perey and Robertson, equal ; Mowat. Class III.-Macdonald (R. B.) and Neville and Watson, - equal ; Pyke.

MINING DESIGN.
Third Year.- Class I.-Davis, MacLean (T. A.), Butler. Class 1I.-Atkinson (W. J.), Atkinson (D. C. T.), Young (G. A.), Ainley, Hillary.

## MECHANICAL DRAWING.

Third Year.-(Electrical Engineering Course.)-Class I.-.Cape; Eaves and Maclennan, equal ; Sheffield. Class II.-Mackie. Class III.-Scott (J. H.), McLea. (Mechanical Engineering Course.)-Class I.-Angel (F. W.), Laurie. Class I1.-Mackerras and Patton and Thomas, equal ; Davidson (J. H.) and Waterous, equal ; Dean, Bacon. Class III.Reaves (C.), Gisborne.
Second Year.-Class 1.-Whyte (J. S.), Wilson, Young (W. M.), Denis. (L.) Class 1I.-Burgess and Grier, equal ; Bowman and McLean (V. B.), equal; Moore (W. A.); Fetherstonhaugh and Wenger, equal ; Archibald (E. M.). Class II1.-Fraser (J.H.) and Hyde (J. C.) and Shaw, equal ; Cornwall and Hickey, equal ; Davidson (W. A.) ; Austin and Dargavel and Fraser (H.) and Pergau, equal ; Coussirat.
designing.
Fourth Year.-(Civil Engineering Course).-Class I.-MacLeod (G. R.) and Newcombe, equal. Class II.-Ogilvie (W. M.). (Electrical Engineering Course).-Class 1.-Macdonald (J. E.) and Stovel, equal ; Macdonald (P. W.), Blair. Class 1I.-Thomson (C.), Edward, Burnham. Class III.-Macbean, Davidson (S.), Walters, Packard. (Mechanical Enginering Course.)-Class 1.-McKinnon. Class M.-Bovey, McKibbin; Symmes and White, equal ; Paradis, Balfour, Connal ; Chamberlain
and Mclaren (D. T.), equal; Finnie. Class 111.-Ferguson, Ross'; Haycock and Sise and Yorston, equal ; Drinkwater. (Mining Engineering Course). -Class 1.-Bell, Thomson (H. N.), Turnbull. Class II.Archibald (W. M.), Denis (T.), Dougall. Class III.--Rutherford (S. F.).

MACHINE DESIGN.
Fourth Year.-(Electrical.Engineering Course).-Class 1.-Stovel. Class II.Macdonald (J. E.). Class III.-Thomson (C.), Macdouald (P. W.), Packard, Burnham; Blair and Davidson (S.) and Macbean, equal; Edward, Walters. (Mechanical Engineering Course.)-Class I.McKinnon. Class II.—White (F. H.), Connal. Class III.-Ross, McLaren (D. T.), Sise (C.), Haycock, Symmes, Finnie, McKibbin; Balfour and Bovey and Chamberlain and Drinkwater and Ferguson and Paradis, equal.
Third Year.-Class I.-Laurie. Class II.-Sheffield, Angel (F. W.), Maclennan, Mackie; Dean and Patton and Waterous, equal ; Eaves; Cape and Simpson (J. M.), equal ; Archibald (H. P.) and Beatty and Davidson (J. H.), equal. Class 1II.-Mackerras, Thomas, McRae, Scott (J. H.), Reaves (C.), Bacon.
dynalitics of machinery.
Fourth Year.-(Electrical Engineering Course).-Class I.-Thomson (C.), Stovel. Class 11.-Davidson (S.) and Maedonald (P. W.), equal ; Macdonald (J. E.), Edward, Blair, Packard, Macbean. Class 11I.Walters, Burnham. (Mechanical Engineering Course.)-Class I.McKinnon, Connal. Class I1.-White, Drinkwater; McKibbin and Paradis and Sise (C. F.), equal ; Symmes, Finnie, Balfour, Bovey. Class 11I.-Chamberlain, Haycock, Ross, Campbell (A.), McLaren (D. T.), Ferguson.

Third Year.-(Electrical and Mechanical Engineering Courses.)-Class 1.Thomas, Sheffield, Angel, Waterous. Class 11.-Maclennan, Eaves; Cape, Laurie, Dean, Mackie. Class 1II.-Davidson (J. H.); Archibald (H. P.) and McRae and Reaves (C.), equal ; Scott (J. H.), Mackerras, *Patton.
kinematics of machinery.
S cond Year.-Class I.-McLean (W. B.) and Whyte (J. S.), equal. Class 11.Archibald (E. M.) and Grier, equal ; Denis (L.), Hickey ; Fraser (H.) and Sbaw and Wilson, equal ; Burgess, Young (W. M.), Fetherstonhaugh, Moore (W. A.). Class III.-Pergau and Wenger, equal ; Davidson (W. A.), Dargavel ; Bowman and Cornwall and Ewan, equal.

MECHANICAL ENGINEERING.
Fourth Year.-Class 1.-McKinnon. Class 1I.-Connal. Class III.-Balfour, Bovey and Symmes, equal ; Campbell (A.), McKibbin, McLaren (D.ģT.); Chamberlair, Haycock, White (F. H.), Ross; Drinkwater and Finnie, eaual ; Ferguson and Paradis and Sise (C.), equal.
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Yass 11.1 (P. W.), an, equal; Class I.is, McLaren n ; Balfour ad Paradis,

Maclennan, Cape and I Davidson ott (J. H.),
nson (C.), $\boldsymbol{N}$.$) , equal ;$ 'lass 11I..Class I.Kibbin and sur, Bovey.
, McLaren
Class 1.ıan, Eaves ; ; Archibald
, Mackerras,

Class 11.Fraser (H.) rstonhaugh, ; Davidson I. ren (D.J̧T.); and Finnie,

## THERMODYNAMICS.

Fourth Year.-Class I.-Turnbull, Macdonald (J. E.), Stovel, McKinnon, Thomson (C.), Archibald (W. M.), Connal. Class II.-Symmes, White, Macbean ; McKibbin and Burnham, equal ; Balfour and Macdonald (P. W.) and McLaren (D. T.) and Packard, equal ; Bell and Thomson (H. N.), equal ; Edward and Ogilvie (W. M.), equal ; Bovey and Drinkwater, equal. Class 1II.-Ross, Paradis, Yorston ; Blair and Chamberlain and Davidson (S.), equal ; Newcombe, Haycock, Sise (C.) ; Dougall and MacLeod (G. R.), equal ; Ferguson and Finnie and Walters, equal.
Third Year.-Class I.-Waterous, Thomas, Angel (F. W.), Reaves (C.). Class II.-Sheffield, Mackerras, Laurie. Class 11I.-Dean, McRae, Davidson (J. H.), Bacon.

THEORY OF STRUCTURES.
Fourth Year - (Civil Engineering Course.)-Class 1.-None. Class 11.-MacLeod (G. R.) and Ogilvie (W. M.), equal ; Newcombe.
Third Year.-Class 1.-McCarthy, Cape, Macphail, Irving, Laurie. Class II,-Eaves, Maclennan, Davidson (J. H.) ; Matheson and Patton, equal ; Simpson (J. M.), Angel (F. W.) ; Bacon and Young (W. M.), equal; Atkinson (D. C. T.) and Mackie, equal ; Dean and MacLean (T. A.) equal ; McLea and Waterous, equal ; Thomas, Beatty, Mackerras, Davis, Sheffield, Reaves (C.). Class 1II.-Bond, *Butler, Archibald H. P.), $\dagger$ Ainley, Atkinson (W. J.), †McRae, †Benny, $\dagger \mathrm{Scot}(\mathrm{J} . \mathrm{H}$.$) , 'Hillary.$

## RAILWAY ENGINEERING.

Fourth Year. - (Civil Engineering Course). - Class I. - None. Class II. Newcombe, MacLeod (G. R.), Ogilvie (W. M).
Third Year.- (Civil and Mining Engineering Courses.) -Class I.McCarthy, Irving, Maephail, Matheson. Class II.-Atkinson (D. C.T.). Class III.,-Butler, Bond, Ainley, Benny.

MUNICIPAL ENGINEERING.
Fourth Year.-(Civil Engineering Course).-Class I.-MacLeod (G. R.). Class II.-Newcombe. Class I1I.-Ogilvie (W. M.).

Third Year.-(Civil and Mining Engineering Courses.)-Class I.-Young (G. A.), Macphail ; Davis and Irving, equal ; MacLean (T. A.) and McCarthy, equal ; Atkinson (W. J.), Butler. Class II.-Hillary and Matheson, equal ; Atkinson (D. C. T.), Ainley, Benny, Bond.

## hydraclics.

Fourth Year.-Class 1.-Stovel ; Bovey and MacKinnon, equal ; Thomson (C.). Class 11.-Turnbull, Thomson (H. N.), Edward ; Connal and Macdonald (P. W.), equal ; Burnham, Archibald (W. M.), Ross ; Bell and Chamberlain and Finnie, equal. Class $I I I$. - Davidson (S.) and Dougall, equal ; Blair and White (F. H.), equal ; Walters, Symmes; Macbean
${ }_{*}^{\text {tSupplemental in }} \underset{6}{\text { Paper I }}$ II.
and Macdonald (J. E.), equal ; Packard and McKibbin, equal ; MacLeod (G. R ), Ferguson, Sise (C.) ; Balfour and Yorston, equal ; Newcombe, Haycock ; Drinkwater and McLaren (D. T.), equal ; Ogilvie (W. M.), Paradis, Pitcher.
electrical engiseering.
Fourth Year,-Class I.-Macbean, Stuvel. Class 11.-None. Class 111.Thomson (C.), Blair, Macdonald (P. W.), Macdonald (J. E.) ; Packard and Pitcher, equal ; Edward, Walters, Davidson (S.).
Third Yarar-Class 1.-Maclennan, Eaves, Cape. Class 1I.-Archibald (H. T.), Sheffield (C.), Dean. Class III.-Scott (J. H.).
alternating currents.
Fourth Year.-Class 1.-Macbean, Stovel, Thomson (C.). Class II.-None. Class III.-Walters, Edward, Packard; Macdonald (J. E.) and Maedonald (P. W.), equal ; Burnham and Davidson (S.), equal ; Blair.
descriptive electrical engineering.
Fourth Year.-Class I.-Stovel ; Macbean (T. A.) and Burnham, equal. Class II.-Davidson (S.) ; Macdpnald (P. W.) and Thomson (C.), equal. Class III.-Packard and Pitcher, equal ; Walters and Blair, equal ; Macdonald (J. E.), Edward.

LABORATORY WORK.
Third Year.-(Cement Laboratory, Civil Engineering Course).-Class I.McCarthy. Class 1I.-Macphail, Matheson, Irving, Hillary, Bond. Cluss 11I.-Benny.
Fourth Year.-(Chemical Laboratory, Chemistry Course).-Class I.-Suter.
Third Ykar.-(Chemical Laboratory, Mining Engineering Course).-Class 1.Butler, Atkitson (D. C. T.), MacLean (T. A.), Ainley, Young (G. A.), Davis. Class 11.-Atkinson (W. J.). (Chemistry Course.)-Class 1.Scott. Class II.-Drysdale.
Second Year.-Chemical Laboratory, Mining Engineering Course).-Class I.None. Class II.-McCarthy, Yuile, Blaylock, MacMillan, Nicholl; Molson and Waller, equal ; Campbell (N. M.) and Preston, equal ; Stevens, Bachand, MacInnes. Class 111.-Morgan ; Henderson and Moore (W. M.), equal. (Chemistry Course).-Class I.-Hutchinson, McLaren (A. J.).

First Year.-(Chemical Laboratory).-Class I.-Gillean, Robertson, Maclaren (G. McG.), Cowans, Byers, Hill ; Callaway and Ewart, equal; Duncan and Howard (R. F ), equal ; Ogilvie (N. C.) ; Neville and Scott (G. W.). Class II.-McDonald (W.) and Nelson, equal ; Shepherd ; Allen and Hamilton (J.), equal ; Barber and Glassco, equal ; Hearn and Smith (G. B), equal; Paterson, Walker, St. George; Hamilton (G. M.) and Hatchette, equal; Miller (A. K.). Class 1II.-Osborne, Whiteway, Donaldson, Montgomery ; Arkley and Cary, equal ; Sise (P. F.), Forman Howard (L. O) ; Donnelly and Pyke and Toole, equal ; Fraser (John, W.), Percy.

Fourth Year.
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Third Year.-(H, P.) Class
Fourth Year.
(G. R.

Fourth Year. Bovey and S
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None.
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; MacLeod Newcombe, e (W. M.),
'lass 111.Packard and rald (H. T.), II.-None. J. E.) and |ual ; Blair.

ұual. Class qual. Class ; Macdonald
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.-Suter. -Class 1.ing (G. A.), 1-Class 1.-
-Class I.an, Nicholl; ual ; Stevens, d Moore (W. in, McLaren
on, Maclaren fual; Duncan icott (G. W.). 1 ; Allen and 1 and Smith
(G. M.) and

Whiteway,
F.), Forman Fraser (Jobn,

Fourth Year.-(Electrical Laboratory).-Class 1.-Stovel, Thomsun (C.), Macbean. Class II.-Macdonald (P. W.), Edward, Macdonald (J. E.). Class III.-Burnham, Walters, Packard, Blair, Pitcher, Davidson (S.).

Third Year.--(Electrical Laboratory).-Class I.-Eaves. Class II.-A rchibald (H, P.) and Mackie and Sheffield, equal ; Cape and Maclennan, equal ; Class 111.-Scott (J. H.), Dean.
Fourth Year.-(Geodetic Laboratory).-Class I.-None. Class 1I.-MacLeod (G. R.) and New combe and Ogilvie (W. M.), equal.

HYDRAULIC LABORATORY.
Fourth Year.--(Hydraulic Laboratory).-Class 1.-McKinnon; Balfour and Bovey and Connal and Thomson (C.), equal ; Campbell, Edward; Bell and Stovel and Turnbull, equal ; Drinkwater; Ferguson and Macbean and MacLeod and McKibbis, equal. Class I1.-White ; Paradis and Pitcher, equal ; Chamberlain ; Archibald (W. M.) and Thomson (H. N.), equal; Sise ; Finnie and Macdonald (J. E.). equal; Ross. Otass III.Davidson (S.) and Macdonald (P. W.), equal ; Yorston, Symmes; Ogilvie (W. M.) and Packard, equal ; Blair, Dougall, Haycock, Newcombe; Burnham and McLaren, equal; Walters.

## laboratory work.

Fiest Year.-(Mathematical Laboratory.)--Class I.--Callaway and Gillean, equal. Robertson, Shepherd; Arkey and Nelson, equal; Cowans and Ewart and Miller (A. K. ), equal ; Smith (G. B.), Barber, Hamilton (G. M.) ; Allen and Fraser (John W.) and Hamilton (J.), equal ; Duncan and Forman and Hill and Walker, equal ; Glassco and Montgomery, equal ; Neville and Ogilvie (N. C.) and Pyke and Whiteway, equal. Class II.-Cary; Maclaren (G. McG.) ; Donaldson and McDonald (W.), equal ; Osborne and Percy, equal ; Howard (R. F.) and Millar (J. L.), equal ; Byers ; Howard (L. O.) and Sise (P.), equal.
Fourth Year.-(Mechanical Enginerring Labordtory.)-Class I.-McKinnon. Class II.-White (F. H.), Haycock, Connal, Symmes, Balfour, McKibbin, McLaren (D. T.). Class III.-Drinkwater and Finnie, equal ; Bovey; Ferguson and Paradis and Ross and Sise and Chamberlain, equal.
Fourth Year.-(Physical Laboratory) (E'lectrical Engineering Course.)-Class I.-Stovel. Class II-Thomson (C.), Macbean, Davidson (S.), Macdonald (J. E.). Class III.-Packard, Burnham, Walters; Macdonald (P.W.) and Pitcher, equal ; Edward, Blair.
Third Year.-(PhysicalLaboratory) (Electrical Engineering Course).-Class 1.Sheffield, Cape, Eaves. Class 11.-Maclennan, Mackie, Scott (J. H.), Simpson (S. M.). Class I1I.-McLea.
Fubrth Year,-('Testing Laboratory.) (Civil Engineering Course).-Class I.MacLeod G. R.), Class II.-Newcombe, Ogilvie (W. M.). Class III.None. (Mining Engineering Course.)-Class 1.-None.-Class II.Thomson (H. N.), Dougall. Class II1.-Turnbull, Bell, Archibald (W.M.),
Third Year.-Testivy Laboratory.-Class I.-Cape, McCarthy. Class II.Maclennan Macphail, Laurie ; Eavas and Irving, equal ; MacLean (T. A.) and $\operatorname{Scot} t_{\text {, (J. H.) and Simpson (J. M.), equal ; Angel (F. W.) and }}$

Waterous, equal; Patton, Matheson, Thomas; Dean and Sheffield, equal ; Butler ; Davidson (J. H.) and Young (G. A.), equal ; Bacon and Davis and Mackerras, equal ; Archibald (H. P.) and Bond, equal ; Ainley Benny. Class III.-Reaves (C.) ; Atkinson (W. J.) and McRae, equal; Mackie, Atkinson (D. C. T.), Beatty, Hillary.
Fourth Year.-(Thermodynamic Laboratory).- Class I.-Campbell and Drinkwater and McKinnon and Symmes and White (F. H.), equal ; Connal McKibbin. Class II.-Bovey and Haycock and McLaren (D. T.), equal; Balfour, Paradis, Finnie. Class 1II.-Chamberlain and Ferguson, equal; Ross, Yorston, Sise (C).

## summer work.

Foorth Year.-Class I.-MacLeod (G. B.) (Latitude of Montreal) and Ogilvie (W. M.) (Survey of N.W. part of N.W.T. with Gold Mining Notes), equal ; Stovel (Hydraulic Press) and Thomson (H. N.) (Mining and Dressing Asbestos), equal ; McKinnon (Hydraulic Press) ; Archibald (W. M.) (Note on the extraction of gold by amalgamation as practised in Nova Scotia) and Turnbull (Explosives), equal ; Bell (Explosives) and Macdonald (J. E.) (Hydraulic Press) and Thomson (C.) (Hydraulic Press), equal. Class 11.Campbell (A.) (Locomotive Repairs); Balfour (Hydraulic Press) and Macbean (Hydraulic Press), equal ; Finnie (Rock Drolls and Drilling) and White (F. H.) (Hydraulic Press), equal; Bovey, (Hydraulic Press) and Dougall (Explosives) and Drinkwater (Hydraulic Press), equal; Connal (Hydraulic Press) and Edward (Hydraulic Press) and Newcombe (Roof Stresses) and Ross (Hydraulic Press) and Suter (Destructive Distillution of Wood), equal. Class 1II.-Ferguson (Hydraulic Press) and McKibbin (Hydraulic Press), equal ; Macdonald (P. W.) (Mainteaance and Repair of Electric Cars) and McLaren (D. T.) (Hydraulic Press), equal ; Burnham (Cement Testing Machines) ard Sise (Maintenance and Repair of Electric Cars) and Yorston (Hydraulic Press), equal; Chamberlain (Halifax Tramway) and Davidson (S.) (Hydraulic Press) and Packard (Hydraulic Press) and Pitcher (Hydraulic Press) and Walters (Hydraulic Press), equal.
Third Year.-Class I.-Macphail (Boston Subway) and McCartby (Intercolonial Railway Plan and Notes), equal ; Laurie (Shafting) ; Atkinson (W. J.) (Hoisting Rock, etc., from underground); Davis (Newfoundland Railway) and McRae (Shafting), equal ; Atkinson (D. C. T.) (Report ot Survey) and Bond (Railway Location) and Dean (Shafting) and Waterous (Shafting), equal; Patton (Shrfting). Class II.-Hillary (Prospecting with Prof. Miller of Kingston Mining School) and Simpson (J. M) (Unloading Coal, with drawings), equal ; Mackie (Shafting) and MacLean (T. A.) (Water System of Nova Scotia), equal ; Mackerras (Shafting) and Sheffield (Shafting), equal ; Bacon (Shafting); Eares (Shafting) and Scott (J. H.) (Shafting), equal ; Angel (Shafting), Davidson (J. H.) (Shafting); Benny (Shafting) and Matheson (Report of Survey) and Thomas (Shafting), equal. Class III.-Cape (Shafting) ; Ainley (Mineral Industries of Ontario) and Reaves (Shafting), equal ; Butler (Account of Town of Chester) and Irving (Topographical Survey) and Maclennan (Shafting), equal ; Archibald (H. P.) Tracing Telephone Generator).

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and Sheffield, 1; Bacon and equal ; Ainley McRae, equal ;
ell and Drinkqual; Connal D. T.), equal; rguson, equal;
and Ogilvie Notes), equal ; $t$ Dressing AsW. M.) (Note ova Scotia) and onald (J. E.) 1. Class 11.-

Press) and $l$ Drilling) and lic Press) and qual ; Connal zwcombe (Roof ive Distillution and McKibbin : and Repair of ןual : Burnham , air of Electric rlain (Halifax : ard (Hydraulic ,draulic Press),

Y (Intercolonial kinson (W. J.) dland Railway) .) (Report ot ${ }^{+}$ ) and Waterous y (Prospecting on (J. M) (Un) and MacLean 3 (Shafting) and (Shafting) and avidson (J. H.) ey) and Thomas Mineral Induser (Account of and Maclennan Generator).

Fourth Year.-Class I.-Campbell (A.) and White (F.H.), equal ; Balfour, Connal ; Finnie and McKinnon, equal ; Drinkwater. Class II.Haycock; McKibbin and Symmes, equal ; Ferguson, McLaren (D. T.), Yorston, Chamberlain. Class I11.-Sise, Paradis, Bovey.

Thimd Year.-Class I.-Patton, Mackie, Archibald (H. P.). Cluss II.-McRae, Scott (J. H.), Eaves, Waterous, Beatty, Mackerras, Gisborne, Cape, Laurie, Porcheron ; Angel (F. W.) and Simpson (J. M.), equal; Maclennan. Class 1II.-Thomas, Dean, Sheffield, McLea; Bacon and Davidson (J. H.), equal ; Reeves (C.), Corriveau.

Second Year.-(Archtectural, Civil and Mining Engineering Courses.)-Class 1.-Colpitts. Cluss II.-Gough, Hyde (G. T.) ; Murgan and Peden, equal; Donnelly, McLeod (N.); Gagnon and Hatchette, equal ; Yuile Fraser (C. E.), Blaylock, Willard, McInnes, Campbell (N. M.); Kírkpatrick and Stevens, equal ; Redpatn. Class 111.-Kame and McMillan and Nicholls, equal ; Preston, Corriveau. (Electrical and Mechanical) Engineering Courses).-Class 1.-Young (W. M.), Fraser (Jas. W . Dargavel, McLean (W. B.), Denis (L.). Class II.-Wilson, Pergau, Wenger, Shaw ; Burgess and Grier, equal ; Cornwall and Hickey, equal ; Fetherstonhaugh, Hyde (J. C.), Austin, Davidson (W. A.), Archibald (E. M.), Bowman, Waller, Fraser (H.). Class 111.-Coussirat, Moore (W. A.).
First Year.-Class I.-Whiteway, Fraser (John W.). Class 11.-Hamilton (G. M.) and Miller (A. K.), equal ; Angel (W. A.) and Donnelly, equal ; Allen and Coote and Hitchette, equal ; Arkley, Millar (J. L.) ; Gillean and Shepherd, equal ; Nelson and Scott (G. W.) and Smith (G. B.), equal; Scott (H. E.), Hamilton (Jas.), Byers ; Hill and Macdonald (R. B.) and Penhallow and Mowat and Walker, equal; Macdonald (W.); Barber; and Burwell, equal ; Callaway and Montgomery, equal. Class III.Cowans and Duncan and Redpath and Staveley, equal ; Howard (L. O.) and McMaster, equal ; Ewart and Kane and Morais and Reeves (J. D.), equal; Coussirat and Maclaren (G. McG.), equal ; Dunaldson and Forman, equal : Cary and Howard (R. F.), equal ; Ogilvie (N. C.) and Smith (C. E.), equal ; L croix and Sharpe, equal; Cameron and Neville, and Osborns and Percy, equal ; Hearn, Fouruier ; Glassco and Robertson, equal ; Toole, Sise.

## Students of the Alluiversity.

## SESSION 1896-97.

## McGILL (OOLLEGE.

## FACULTY OF LAW.

## FIRST YEAR

| Baby, Henry, Jr., Montreal | Lynch, Walter H., Mansonvile, Q |
| :---: | :---: |
| Ball, William S., East Bolton, Q | McCabe, Ed. P. F., Windsor Mills, $\mathrm{c}_{\text {c }}$ |
| Barlow, Joseph C., Montreal | McIver, William E. Melbourne, Q |
| Bercovitch, Peter, Montreal | Robertson, Wm. G. M., Sherbrooke, Q |
| Carter, Wm. Frederick, Cowansville, Q | Saunders, Frank C., B.A., Montreal |
| Descarries, J. M. F., Notre Dame de | Thomson, Arthur B, $\quad$ Montreal |
| rolet, Edmond B., $\quad \begin{gathered}\text { Grace, Q } \\ \text { Montreal }\end{gathered}$ | Thornloe, Walter E. G., Sherbooke, Q Vipond, Ernest E., Montreal |
| Ives, William C., Coaticooke, Q | Whelan, Joseph, Mon |
| par | students. |
| McLeod, Henry S., Dunstaffnage, | Rees, Henry, Montreal |
| seco | year. |
| Burnet, Arthur, Farnham Centre, Q | Howard, Erastus E., B.A., Frontenac, 0 |
| Champoux, Cbarles, M-ntreal | Iles, Charles, Montreal |
| Clay, Samuel, B.A. (Cantab) Montreal | Kennedy, John R., Montreal |
| Elliott, Henry J... Montreal | Marler, Herbert Mi.e Montreal |
| Hickson, James Claud, B A., Montreal | Rogers, Reginald H., Montreal |
| Honan, Cornelius, Montreal | Semple, George Hugh, Montreal |

Baby, Henry, Jr.,
Ball, William S.,
Barlow, Joseph C.,
Bercovitch, Peter,
Montreal
Dis Cowansville, Q

Drolet, Edmond B.,
Drolet, Edmond B
Ives, William C.,

Grace, Q
Coaticooke, $Q$

Lynch, Walter H.,
Mansonvile, Q Melburne, Robertson, Wm. G. M., Sherbrooke, Q Saunders, Frank C., B.A., Montreal Montreal Vipond, Ernest E., Montreal Whelan, Joseph, $\quad$ Montreal

Burnet, Arthur, Farnham Centre, Q Champoux, Charles, Muntreal Elliott, Henry J., Montreal Hickson, James Claud, B A., Montreal Honan, Cornelius,

Montreal

Howard, Erastus E., B.A., Frontenac, 0 Iles, Charles,

Vere, Hor.,
Rogers, Reginald H.,
Semple, George Hugb,
Montreal
third year.

Armstrong, Edgar N. Bickerdike, Frank A. Bissonnette, J. E. A., St Hyacinthe, Q Bond, William Langley, Montreal Boyd, Leslie H.

Montreal Brossoit, Numa P. Cole, Frederick E. Cook, John Wilson, Dickson, Ed. H. Treuholme,

Trenholmeville, Q

Duclos, Arnold W., St Hyacinthe, Q Ewiug, Jos, Armitage, Melbourne, Q Jasmin, Pierre S. Coaticooke, Q Kneeland, Abner W. S. Stukely, Q Laverty, Frąncis Josepb, Montreal Mansur, Charles Henry, Stanstead, Q Montgomery, Geo. A. Phillipsburg, Q Smyth, William Oswald Toronto, 0 Stewart, Alexander M., Edinburgh,

Almon, W. B
Anton, D. L.
*Armstrong,
Babcock, J. R
Ballantyne, U
Bishop, T. E,
Boira, W. E.,
Brown, F. L.
Buffett, C., B.
Burrows, A. E
Campbell, 0 .
Carnwath, J.
Cartwright, C
Charlton, G.
Charroe, A
Clemesha, $W$.
Coates, H. W.
Coffin, J. D.,
Cook, C. R.,
Coristine, W.
Costello, A. E
Cowperthwait
Cox, J. R.
Crowell, B.C.
Cunningham,
Dandurand,
Davis, W. P.,
Dick, J. J.,
Dixon, J. D.

- Dixon, W. E.

Donaldson, A.
Donnelly, A. J
Duffy, P. F.
Eagar, W. H.,
-Edward, A. T
Eliot, C. H., Freeman, C. H
-Gardner, R. L
Gibson, E.
*Gilday, A. L.
Goltman, R.,
(Goodall, J. R.
Gordon, A. E., Gray, H. R. D., Gurney, S. C., Hall, A. R.
Hamilton, J. A Harvie, S. K., B Haszard, O E. 1 Henry, O. K. P Hiebert, G Hill, W. H.' P., Hughes, R. E.," lgoe, O. A. Jardine, J.,

- Johnson, R. de Johnston, A., Jones, H. A., B Keating, B. H.,


## FACULTY OF MEDICINE.

ansonvile, Q dsor Mills, $Q$ Melbourne, Q herbrooke, Q

Montreal Montreal herbooke, Q Montreal Montreal

Montreal

Frontenac, ${ }^{-1}$ Montreal Montreal Montreal Montreal Montreal
fyacinthe, Q helbourne, Q oaticooke, Q 3. Stukely, Q Montreal ̇tanstead, Q illipsburg, Q Toronto, 0 Edinhurgh Scotland

Almon, W. B
Anton, D. L. S.,
*Armstrong, J. W.,
Babcock, J. R.,
Ballantyne, U. T.,
Bishop, T. E.,
Boira, W. E.,
Brown, E. L.,
Buffett, C., B.A.,
Burrows, A. E.,
Campbell, O. E.,
Carnwath, J. E. M.,
Cartwright, C.,
Charlton, G. A.,
$\dagger$ Charros, A C., B.A.
Clemesha, W. F.,
Coates, H. W.
Bass River, N.B
Coffin, J. D., Charlottetown, P.E.I
Cook, C. R.,
Coristine, W. H.,
Costello, A. E.,
Montreal, Q
Montreal, Q
Montreal, Q
Cowperthwaite, W. M., St. Johns, NHId
Cox, J. R.
*Crowell, B.C.,
Cunningham, F. J.,
Dandurand, L. H.,
Davis, W. P.,
Dick, J. J.,

- Dixon, J. D.,
- Dixon, W. E.,

Donaldson, A.S.,
Brockville, O
Duffy D , A. J., B.A., Sturgeon, P.E.I
Duffy, P. F., Charlottetown, P.E.I
Eagar, W. H., Dartmouth, N.S
-Edward, A. T.,
*Eliot, C. H.,
Freeman, C. H., B.A.,
*Gardner, R. L.,
Gibson, E.,
-Gilday, A. L. C.,
$\dagger$ Gol'man, R.,
*Goodall, J. R.,
Gordon, A. E., B.A.,
Gray, H. R. D., B.A.;
Gurney, S. U.,
Hall, Ä. R.,
Hamilton, J. A., Harvie, S. K., B.A.,

Hull, Q
Yarmouth, N.S
Montreal

## Montreal

Ottawa, 0
Montreal, Q
Montreal, Q
Montreal, Q

Montreal, Q
Milwankee, Wis
Milton, N.S
Brockville, 0
Campbellford, 0
Montreal, Q
Montreal, Q
Ottawa, 0
Alberton, P.E I
Montreal, Q
Detroit, Mich
Washingten, 0 Onondaga, 0 Haszard O F. L. Chumewport, N.S Henry, O. K. P.,
Hiebert, G.,
Hill, W. H. P.,
Hughes, R. E.,
Igoe, O. A.,
Jardine, J.,

- Johnson, 'R. de L.,

Johnston, A-,
Jones, H. A., B.A.,
Keating, B. H.,
Uttawa, 0
Gretna, Man
Montreal, Q
Ottawa 0
Tarrytown, N.Y
Freetown, P.E.I
Montreal, Q
Leeds, Q
Moncton, N.B
Moore, 0

IRST YEAR.

Keating, H. T.,
Keefe, R. D.,
*Larmonth, G. E.
Lawlor, F. E.,
Lester, ©. W.,
Lynch, J. B ,
Macpherson, C ,
Martin, L. W.,
Mitchell, V. E,
Morrison, G. D.,
Morrison, A S.,
Morrow, J. J.,
Murray, L. M.,
McAuley, A. G:,
*McConnell, R. E.
McDiarmid, W. B.,
McDonald, W. F.,
McKee, S. H., B.A.
McSorley, H. S.,
*Ness, $\mathbf{W}$.
O'Rielly, E. P., B.A.,
B.A., Hamilton, o

Paintia, A. C.,
Paterson, R. C., Mansonville, $Q$ Paterson, R. C', Paterson, W. F., B.A. Montreal, Q Paterson, W. F., B.A., Montreal, Q
Pattie, F. J., Patton, J. W. T., New Glasgow, N.S Payne, R. H., $\quad$ Jamaic, W.I Pittis, W., Plainfield, N.J Pope, E. L., B.A., Belleville, 0 Porter, F. S.,

Powassan, 0
Ramsay, W. A., Westmount $Q$ Richard, F. A., B.A., Richibucto, N.B *Ritchie, C. F.,

Montreal, Q Ritchie, Thos. F.,

Halifax, N.J Robb, G. W. A., Oxford, N.S Ruberts, A. B

Lanark, 0 Ross, H., B.A., Montreal, Q Rowley, W. E., B.A., Marysville, N.B Rutherford, A. E., Montreal, Q Scriver, E. F., Hamilton, 0 Secord, E. R.' Brantford, O Shaughnessy, C. R., St. Stephen, N.B Snetsinger, H. W., Moulinette, 0 Stevenson, R. H., Danville, Q Stewart, C. A. $\quad$ Dunvegan, O Sullizan, M. T., Little Glace Bay, C.B

Supple, J. A•,
*Thomas, J. W., Townshend, C., Turnbull, J. A., , Bear River, N.S Turner, W. G., B.A., Quebec City, Q
*Walker, H., Beaulien, Island of
Orleans
Wheeler, F. C.,
*White, E. H.,
$\dagger$ Willi ms , W.,
Wilmot, L. B.,
Wilson, W. A.,
Pembroke, 0
Montreal, Q
Parrsboro, N.S

Richford, Vt
Montreal, Q
Utica, N Y
Oromocto, N.B
Carleton Place, 0

Moore, 0
Iroquois, 0 Montreal, Q Dartmouth, N.S Sonth Durham, Q Fredericton, N.B St. Johns, Nfld

Warden, $Q$
Montreal, Q
Vankleek IIill, 0 Montreal, O Fergus, 0
Truro, N.S
Ventnor, 0
Montreal, Q
Maxville, 0
Westville, N.S
Fredericton, N.B
Montreal, Q
Howick, Q

Montreal, Q

## second year

Alley, G. T., Charluttetown, P.E.I $\dagger$ Ackerley, A. W.. Fredericton, N.B Allen, W. C., Hillsboro, N.B Aylmer, A. L. Beadie, W. D., Beaulieu, J. F., Bonner, J. A., Bowles, C. T., Bradley, J. H. Brannen, J. P., Brennan, F. A., Brown, W. F., B.A Browning, W. E. Burnett, W. B., B.A., Burnett, P., Burris, J. S., Cameron, L. G., Casselman, P. C. Conroy, R. J., Converse, R. D., Craig, J. E., Cram, W. J Cummings, W. A., Cunningham, A. A., Cu_ner, G., Darche, C. E. Drier, N. E.,' Richmond Corners, N.B Dunn, C. B., Abercorn, $Q$ Dyer, E. O., B.A., Fairie, J. A., FitzGerald, C T Montreal, Q Fuller, G. F. L., Sweetsburg, Q Galbraith, W. S., Lethbridge, N.W.T Gillis, E. G., Indian River, P.E.I Gordon, A. H., Gray, C.F. A., Greene, E. Hall, W. T. Higgins, C. P. Howden, G. T., Irving, L. E. W Jones, D. C. Keenan, F. T. J. King, J' W. de C ., Law, R., Leveque, J. T., Levy, A., B.A., Lineham, D. M. Loeb, A. A. Logie, A. E., Love, R. H.,

Fourner, F. W., B. A. Montreal, $Q$

Montreal, Q Lachine Locks Quebec, Q
New York, N.Y Ottawa, 0 Charlottetown, P.E.I Montreal, Q St Albans, Vt Plattsburg, N.Y Exeter, 0 Sussex, N.B Montreal, $Q$ Musquodoboit, N.S Cascades, Q Morrisburg, 0 Peterboro, 0
New York (iity
North Gower, 0 Carleton Place, 0
Buckingham, Q Huntingdon, Q Ottawa, 0 Danville, Q Sutton, Q Montreal, Q
., St. John, N. B Montreal, Q Leitrim, o Montreal, Q Victoria, B. C Montreal, Q Toronto, 0 Maitland, 0 Lindsty, 0 Peterboro, 0 Ottawa, ${ }^{0}$ St. Boniface, Man Montreal, Q
Calgary, N.W.T Montreal, Q
Chatham, N.B Carleton Place, 0

Macdonald, J. S. Macoun, H. J. G., Martin, J. J., Massie, J. C., May, L. W., Mellon, P. B., Mousseau, E, A Murphy, E. F.

St. John, N.B McCombe, J., McDougall, A. McKay, J. G. McKechnie, W. C., MacKenzie, C. A.,
McNally, D. A., Abrams Village P.E McNaughton, F. M. A., B.A., Hun-
tingdon, Q

## McNiece, T. <br> Carsonby, 0

Nash, A. C.
Nicholson, F. J., B.
Noble, E. C.,
O'Brien, J. R., B.A.,
O'Callaghan, M.,
O'Reilly, R.,
Paterson, A., B.A.,
Peake, E. P., B.A.,
Reynolds, F. L-
Rochon, O. B.A.,
Rodger, D. A.,
Ross, S. A.
Ross, W. J.,
Ryan, G. H. W.,
Scott, J. F.,
Shore, R. A. A., B. A
Sparling, W. R.,
Sparrow, U. J..
Stansby, F. C.,
Sutherland, W. H.,
Symmes, C. R.,
Tanner, C. A. H.,
Tansey, O. J.,
Thompson, G. H.,
*Todd, J. L.
Tooke, F. T., B.A.
Turnbull, T.,
Whillans, H. A.,
Wilkins, W. A.,
Wilkirs, F.F..
Witherbee, W.D.,
Wood, J. H. M.
Woodley, J. W•,
Montreal, Q
Montreal, Q North Bay, 0 Cowansville, Q Ottawa, 0 Ottawa, 0

Hull, Q
tetown,P.E•I
Iberville, Q
Kippen, 0
Morewood, 0
Marquette, Man
Toronto, 0

Ogdensburg, N.Y
Victoria, B.C
Potsdam, $\mathrm{N} \cdot \mathrm{Y}$
Ottawa, 0 Kars, 0
Ottawa, 0 Montreal, Q Oshkosh, Wis St John, N.B
Rockland, 0 Genoa, Q Hintonburg, 0
Martintown, 0
Montreal, Q Montreal South, Q

Toronto, 0
St. Mary's, 0 Alexandria, 0 Valparaiso, Chili Sea View, P.E.I Aylmer, Q Windsur Mills, 0 Montreal, Q
third year.

Banfill, S. A.,
Barlow, W. L., B. A.,
Bartlett, G. W.,
Brigus, Ntd Bayfield, G. E., Charlottetown, P.E.I

Beattie, R. F., Bell, John, New Glasgow, N.S Brown, C. H., B.A., Carleton Place, 0

Campbell,
Corbet, G Corcoran,
Covert, A
Cushing, E
Dalpé, W.
Davidson,
Deane, R. 1
Dickson, S
Duncan, $R$.
Duval, J. L
Fagan, G. .
Fawcett, R
Finnie, J. I
Forbes, A.
Fox, A. C.
Francis, B.
Fraser, F.
Galbraith,
Gillies, B. 1
Grace, N .,
Green, F. V
Harvey, F.
Houston, J.
Iludson, H.
Jamieson, I
Jones, F. B
Lamb, J. A.
LaRue, H. Lynch, W.
Macauley, J
Macaulay, н

Aspland, W.
Barclay, J.,
Bearman, G.
Brears, C. F.
Brown, W. 5
Brown, C. L.
Burrell, R. H
Campbell, !.
Clindinin, S.
Curran, T. J.
Darche, J. A
Delmage, $\mathbf{F}$.
Doyle, J. J.
Dunber. W.'।
Eberts, E. M
Edwards, A.
Foster, G. M
Foster, A. L.
Gadbois, F. 1
Gilday, F. W
Gladman, E.
Gordon, G. ${ }^{\prime}$ Gourley, T.

Montreal, Q Montreal, Q Jorth Bay, 0 wansville, Q

Ottawa, 0
Ottawa, 0
Hull, Q t. John, N.B tetown,P.E• I Iberville, Q

Kippen, 0 Morewood, 0 rquette, Man
Toronto, 0 Village, P.E. 1 3.A., Hun-
tingdon, Q Carsonby, 0 ensburg, N.Y Victoria, B.C ’otsdam, N•Y

Ottawa, O
Kars, 0
Ottawa, 0
Montreal, Q Oshkosh, Wis
St John, N.B
Rockland, 0
Genoa, Q Iintonburg, 0
Lartintown, 0
Montreal, Q
real South, Q
Toronto, 0
St. Mary's, 0 Alexandria, 0 paraiso, Chili
a View, P.E.I
Aylmer, Q ndsor Mills, 0

Montreal, Q
Glasgow, N.S
Victoria, B.C
Montreal, Q
Stratford, 0
Hintonburg, 0
Montreal, Q
Montreal, Q
Potsdam, N. 1
Montreal, Q
Rockland, 0

Economy, N.S Glasgow, N.S Ormstown, Q rleton Place, 0

Campbell, V. B.,
Corbet, G. G.,
Corcoran, J. A.,
Covert. A M., B., B. A.,

Dalpé, W. H., B.A.,
Davidson, C.,
Deane, R. B.,
Diekson, S.M., B.A.,
Duncan, R. G.,
Duval, J. L. Fagan, G. A., B.A , North Adams, Mass Fawcett, R. F.M.,

Finnie, J. H.,
Forbes, A.M. T.,
Fox, A. C. L.,
Francis, B.
Fraser, F. ©., B. A.,
Galbraith, H.H.
Gillies, B. W. D.,
Grace, N.,
Green, F. W.
Harvey, F. W., B.A.
Iludson, H. P.'
Jamieson, W.'R.,
Jones, F. B.,
Lamb, J. A.,
LaRue, H. A.,
Lynch, W. W.,
Macauley, J. F.,
Macaulay, H. R.,

Grande Ligne, Q

Abercorn, Q
Finch, 0
St. John, N.B Warden, Q
Grand Manan, N,B
Montreal Montreal Montreal Regina, N.W.T Montreal
Bathurst, N.B
orth Adams, Mass
St. Andrews,
Jamaica, W.I
Montreal
Montreal
Montreal
Sydney Mines, N.S
Montreal
Westmount, Q
Teeswater, 0 Montreal
Victoria, B.C
Chelsen, $Q$
Ottaws, U
Montreal
Ottawa, 0
Portneuf, Q
Knowlton, Q
St. John, N.B
Montreal

Mooney, M. J.,
Morris, T. E.,
Moss, J. N.,
Mussen, A.'T.,
Myers, D. A.,
MacLean, J.N:
McLean, J. R., B.A.,
McLennan, P. A-
McLeod, J.,
McMurtry, A. L.,
Ogilvy, C., B.A-
O'Shaughnessy, L. J., Patterson, F. P., B.A., St. Andrews,N.B Patterson, R. U., Baltimore, Md. U.S.A Pigeon, W. H.,
Pittis, H.,
Peters, C. A.,
Powers, Martin, B.A., Rajotte, E. C. F.,
Rose, W. O.,
Rutherford, R. M.,
$\begin{array}{ll}\text { Rutherford, R. M., } & \text { Hawkesbury, } 0 \\ \text { Schwartz, H. J., } & \text { Quebec }\end{array}$
Sibler, W. F., $\quad$ Simcoe, $U$
$\begin{array}{lr}\text { Smith, A. M., B.A., } & \text { Petitcodiac, N.B } \\ \text { Snyder, A. F. W. W., } & \text { Coaticook, }\end{array}$
$\begin{array}{lr}\text { Smit, A. M., B.A., } & \text { Petitcodiac, N.B } \\ \text { Snyder, A. E. W., } & \text { Coaticook, Q }\end{array}$
Stockwell, H. P.,
Telford, R,
Tiffany, G.'S.
West, J., M•A.
Whitton, D. A.,
Wood, D. F.,

Oldham, N.S atterson, F. P., St. Martins, N.B

Danville, Q
Valens, 0
Alexandria, $\mathbf{U}$
Inverness, $\mathbf{Q}$ St. John, N. B Montreal
Lachine, Q Bessemer, Mich Sarnia, 0 Arnprior, 0 Lancaster, 0 Hartsville, P.E.I Bowmanville, 0 Montreal

Peterboro, 0
Plainfield, N. J St. John's, Nfld

Ottawa, 0 Montreal
Hakeville, P.E.I Hakeville, P.E.I
Hawkesbury, 0 Grafton, N. Dakota

Montreal
Faribault, Minn

## FOURTH YEAR.

Aspland, W. H. G., M.D.,Battle Harbor,
Labrador
Barclay, J.,
Bearman, G. P.
Brears, C. F.,
Brown, W. R.,
Brown, C. L., B.A.,
Burrell, R. H,',
Bells' Corners 0 Regina, N.W.T Montreal

Campbell, !. G., D.V.S. Port Lewis, Q Yarmouth, N.S

Clindinin, S. L.,
Curran, T. J. J.,
Darche, J. A.,
Delmage, F. W., B.A.,
Doyle, J. J.
Dunber. W. R.,
Eberts, E. M. тon,
Edwerds, A. F.
Foster, G. M.,
Foster, A. L., Gadbois, F. A.
Gilday, F. W.,
Gladman, E. A.,
Gordon, G. 'S.,
Gourley, T. A.,

Gurd, C. C., B.A., Harding, E.' S., B.A., Harvey, F. C., B.A., Hayden, E. W., B.A., Hurdman, H. H., Jackson, F. S., Westmount, $\mathbf{Q}$ Emerald Junc, P.E.I Johnston, W., Charlottetown, P.E.I Jost, A. C., B.A., Keenan, C. B., Kerr, R. A-
Kirby, H. S.
Laidley, I. H.,
Laing, A. L.,
Lang, A. A. J., Lennon, H., B.A., LeTouzel, J. R., Lockary, J. L., long, C. B.
Lyster, H. F.,
Richmond, $Q$
McAllister, D. H., B.A., Belle Isle, N.B
McCallum, E. C.,
Kingston, 0
McCabe, J.' A., B.A., Windsor Mills, Q
Macdonald, D. J., Whycocomagh, C.B

Macdougall, G.P., Grand River, P.E.I McDougall, J. G., Blue Mountain, N.S McElroy, A. S. Richmond, 0 McKinzon, F. W., McLrien, R. W. Melennan, A. A., N cLennan, D. A. IcNally, W. P., Abrams' Village,P.E.I DeRae, J. D.,
McRae, W. R.
Malloch, N.,
Maloney, M. J., Merkley, E. A., Morris, C. H., B.A., Morse, L•H•, B.A., Midgley, R. J.,
Milburn, J. A.,
Oppenheimer, S. S.,
Pallister, W. T.,
Palmer, A. J.,
Pennoyer, A• R.,
Prodrick, W. S. ${ }^{\text {F }}$
Rice, F. E., M.D ,
Ritchie, A. A.,

Vankleek Hill, 0 St. Raphaels, 0 Lancaster, 0 Montreal Glen Eilis, 0 Baddeck, C.B Kenmore, 0 Eganville, $U$ Morrisburg. 0 Windsor, N.S Bridgetown, N.S Woodstock, 0 Peterboro, 0 Vancouver, B.C Guelph, 0 Buckingham, Q Gould, Q Ottawa, o
Sandy Cove, N.S
Dalhousie, N.B

Robert, G. C., Robertson, H. M., Rodger, D. A., Rogers, F . E.,
Roy. J. J
Scott, W.T.,
Seaton, J. S.,
Skeels, A. A., B.A.,
Smith, H.,
Smith, R. A.,
Stanfield, H. M., B.A.,
Sterling, A.,
Sutherland, G. R.,
Tierney, J. A.,
Thomas, H. W.,
Thomas, J. E.,
Thompson, J.A., Tozer, F. W., Trainor, J. B.,
Wainwright, F. R. Wainwright, S. F. A Williams, E. J., B.A., Wilson, F. W.E.

Holyoke, Mass Chatham, 0 Genoa, Q Brighton, 0 New Glasgow, N.S Montreal
St. John, N.B Montreal Acadia Mines, N.S Durbam, 0 Truro, N.S Fredericton, N.B Hodson, N.S
Fallowfield, 0 Montreal Montreal
Kinnear's Mills, $Q$
Neweastle, N.B Kelly's Cross, P.E.I Montreal St. Andrew s, $Q$ Sherbrooke, Q Montreal

## FACULTY OF ARTS.

## Un.lergraduates.

FIRST YEAR.

Name.
Ainley, Laurence
Anderson, Richd 3,
Baker, Geo. P.,
Burke, Maurice N.,
Chamberlain, Alex. F.,
Charters, Heibert,
Cleghorn, James Herbert, Cochrane, Donald, Cohen, Abraham, Cooke, H. Lester, Crowell, Bowman C., Davies, Nelson C., Dixon, James D., Elder, Robert. Ells, Sydney C., Forbes, Wilfrid,

Goodhue, Harry,
Grier, Geo. W.,
Hardy, Charles A..
Horsfall, Frank L.,
Ireland A. Austin,

## School.

Almonte H. S.,
Private Tuition,
it Paul's School, Concord, N.H.
Bishop's Coll. S.,
Ottawa Collegiate Institute,
Montreal H. S.,
Montreal H. S.,
Montreal H. S.,
Montreal H. S.,
Montreal Collegiate Institute,
Milton H. S., Yarmouth, N.S.,
McGill Normal School,
St. John's School,
Huntingdon Academy,
Ottawa Collegiate Institute,
Prince of Wales Coll., P.EI, Vettawa, 0 Whes Conl., P.E.I., Vernon River Br dge,

Institute Feller.
Montreal Collegiate Institute,
Prince of Wales College, P Montreal Collegiate Institute,
Montreal Diocesan Theol. Coll.

PiE.I
Residence.
Almonte, 0
Kenlis, Assa
Yarmouth, N.S
Montreal
Ottawa, 0
Montreal
Montreal
Montreal
Montreal
Montreal
Yarmouth, N.S
Bedford, Q
Montreal
Trout River, $Q$

Danville, $Q$
Montieal
ne Cove
P.E.I.

Montreal
Montreal

Name.
Jeakins,
Johnson,
Larmontl
McCormi
Mackinno
Mitchell,
Ness, Wm
Nutter, J.
Ogden, U
Reford, $L$
Ritchie, C
Rowat, T
Rowell, A
Scott, Ge
Scott, Ha
Shaw, Le
Shepherd
Simpson
Skinner V
mith, $\mathbf{F}$.
T!ffin, Jnc
Trenholm.
Walker, F
Weinfield,
Wood, Pe
Woodley,

Baker, G.
Bates, C. ,
Brown, W
Brace, Gu
Burke, Ed
Burton, $\mathrm{H}_{1}$
Cution, Cl
Crack, Isa
Cumming.
DeWitt. Ji
Dixon, $\mathrm{W}_{1}$
Dorion, W
Douglas, F
Duguid, R
Edward, A
Ells, Hugb
Fergu:on,
Garduer, E
Goodall, J
Gubhree, N
Hardisty, I
Henderson.
Holland, $T$
Hunter, Ec
Johnson, R
Keitb, Hen
Laurie, Ert
Lee, Hy. S.
Lundie, Jo
Luttrell, H

## 307

Ilyoke, Mass Chatham, 0

Genoa, Q Brighton, 4 lasgow, N.S

Montreal
t. John, N.B

Montreal
a Mines, N.S
Durham, 0
Truro, N.S ericton, N.B Hodson, N.S allowfield, 0

Montreal
Montreal :ar's Mills, Q weastle, N.B Cross, P.E.I

Montreal Andrews, Q aerbrooke, Q Montreal

Residence.
Almonte, 0 Kenlis, Assa armouth, N.S Montreal Ottawa, 0 Montreal Montreal Montreal Montreal Montreal armouth, N.S Bedford, Q Montreal rout River, Q Ottawa, 0 River Br dge, Pi E.I.
Danville, Q Montieal Portune Cove P.E.I. Montreal Montreal

Name.
Jeakins, Charles E., Johnson, J. Guy W., Larmonth, Norman G.,
McCormick, Alex. S., Mackinnon. Cecil G., Mitchell, Walter G., Ness, Wm.,
Nutter, J. Appleton, Ogden, Uharles G., Reford, Lewis,
Ritchie, Charles F., Rowat, T. Alex.
Rowell, Arthur H., Scott, Geo. W., Scott, Harry E,, Shaw, Leonard D. Shepherd, Ernest G., Simpson S. Huntingdon, Skinuer Waldo W. Smith, F. Napier, T! ffin, Jno. E.,
Trenholme, Harold W., Walker, Horatio,
Weinfield, Henry,
Wood, Percival S.,
Woodley, Edward C.,

Bates, C. J. L.,
Brown, Walter G.,
Bruce, Guy O. T.,
Burke, Edmunt A., Burton, Henry T., Cotton, Chas M.,
Crack, Isaac E.,
Cumming. W. Gordon,
DeWitt. Jacob,
Dixon, Win E.,
Dorion, Walter A.,
Douglas, Fred. C.,
Duguid, Robert C Edward, Arch. T., Ells, Hugh,
Ferguson, Colin C., Garduer, R. Lorne, Goodall, Jas, R., Gu'brle, Norman G., Hardisty, Rictrard,
Henderson, Ernest H.,
Holland, Thos. B,
Hunter, Edwin N McL.
Johnson, R. De Lancey,
Keith, Henry J.,
Laurie, Ernest,
Lee, Hy. S.,
Lundie, John Alex.,
Luttrell, Hy. P.,

## School.

Huntingdon Academy,
Montreal Collegiate Institute, Private Tuition,
Abingdon School,
Bishop's Coltege School,
Montreal High School,
Huntingdon Academy,
Montreal H.s.,
Three Rivers A cademy,
Montreal Collegiate Institute,
Montreal H. S.,
Huntingdon Academy,
McGill Normal School,
Montreal H. S.,
Napanee Collegiate Institute.
Napanee Collegiate Institute,
Davenport School, St John, N. B. St John, N.B.
Bishop's Coll. S.,
Montreal
Veakleek Hill, 0
Davenport School \& U. C. College, Sit Jobn, N.B Bishop's College S., Montreal
Montreal Collegiate Institute, Pont du Sault
Montreal Collegiate Inst. Westmount, Montreal
Quebec H. S.,
Montreal H. S.,
Montreal H. S.,
Montreal H. S.,
L'Ile d'Orléans, Q Montreal
St. Juhns. Q
Montreal
Residence.
Huntingdon, Q Montreal
Ottawa, 0
Westmount, Montreal
Cowansville, Q
Drummondville, $\mathbf{Q}$
Howick, Q
Three Rivers, $Q$
Montreal
Montreal
Athelstan, Q
Montreal
Montreal
St John, N.B

SECOND YEAR.
Berthier Grammar School,
Vankleek Hill H.S.,
Huntingdon A cademy,
Huntingdon Academy,
Bishop's Coll. School,
Upper Canada College,
Grande Ligne, Q.,
St Francis Coll., Richmond,
M. H.S.,

Sweetsburg
L'Origual, 0
180

Montreal Collegiate Institute,
Montreal Coll. Inst.,
McGill Normal School,
Montreal Collegiate Institute,
M. H. S ,

Athelstane, Q
Huntingdon, Q.
Alontreal
Swe Moutreal
Kingsburg, Q Montreal

Montreal Collegiate Institute,
Ottawa Col egiate Institute,
Uttawa
Prince of Wales Uollege, P.E.I., Marshfield, P.E.I.
Brockville Coll. Inst.
Ottawa University,
Guelph Coll. Inst.,
Huntingdon Academy,
Brock ville, 0
Ottawa

Franklin Centreal
Montreal Diocesan Theological Coll.,London Eng
Prince of Wales Coll. P.E.I. Merrimac Mass.U.S.
Montreal Collegiate Institute,
Emith's Falls H. S.,
M. H. S.,

Private Tuition,
M. H. S.,
M. H. S.,

Montreal
Smith's Falls, 0
Montreal
Kamloops, B.C
Monireal
Montreal

## Name.

McClung, Robert K., McDonald, Paul A., McKenzie, Bertram S., McLeod, John B., Millar, W. Kinlock, Munroe Thos. A., Patch, Frank S., Rice, Horace G.,' Robertson, Lemuel, Stewart, Donald, Thompson, Jas. E., Wainwright, Arnold, White, E. Hamilton,

## School.

Hamilton Collegiate Institute
Hamilton Collegiate In
Huntingdon Academy,
Coll. Inst. London, O.,
Prince of Wales College,
Pembroke H. S.,
Private Tuition,
M. H. S.,

Woodstock Collegiate Institute, New Montreal Prince of Wales College, P.E.I., Marshfield, P.E.I Almonte H. S.,
Coaticook Acad.
M. Coll. Inst.,

Abingdon School, Montreal,

THIRD YEAR.

## Name.

Bates, Geo. E., Bishop, W. Gordon, Blyth, R. B.,
Bruce, John C., Bruce, John C.,
Campbell, J. Aug. Ewat.,
Montreal Campbetl, J. Aug. Ewat., $\begin{aligned} & \text { Montreal } \\ & \text { Colby, Jno. Child, }\end{aligned}$ Stanstead, Q Costigan, Jno. Wm., Dalgleish, R. Wallace, Duff, Alex. $H$, Huntingdon, $Q$ Gardner, Wm. A. Huntingdon,
Gilday, Arch. L. C., Grace, Arch. H., , Mew York City Larmonth, G. E, Montreal Leney, John Muirhead, Montreal McConnell, Robert Ernest, Montreal McGregor, Jas. Albert, Huntingdon, Q McLeod, Hy. S., Dunstaffnage, P. E. I

Residencc.
Lanark, 0 Montreal
Belwood, 0 Montreal
$\qquad$

Name.
Maclaren, A. Henderson,Huntingdon, Q Meyer, John B., Montreal Moore, Percy T., Munn, D. Walter, Paterson, Robert Childs, Quebec Place,$\quad$ Montreal Prudbam W W., Millington, Q Ross, Arthur B., Montreal Ship, Moses L., Montreal Stephens, J. G. New Rocklands, Q Tarlton, B. B., Montreal Thomas, J. Wolferstan, Montreal Thompson, Jas. R., Kinnear's Mills, Q Todd, J. L.,

Victoria, B. C. Turner, Henry H, Turner, Wm. D., Vineberg, Abraham, Worth, Fulton J, Appleton, 0 . Appleton, 0 Montreal
Wellington, B.C

Montreal

Dunbar, 0
Ooaticook
Montreal
Residence. Kingsbury, Q t. Agnes de Dundee London, 0 Springton, P.E.I. Pembroke, 0 Montreal Montreal

FOURTH YEAR.

Archibald, Sam. G. Armstrong, W. J. Adlex., Ashdown, Chas. R. Boyce, W. S. P.; Browne, John G. Campbell, Ed. M. Campbell, Roland P., Orack, H. Arthur, DuBoyce, Percy C . Douglas, Robert J., Howard, A. Campbell P Ives, Charles K., Johnston, Wallace, Ker, Robert Harold, McBurney, Cbas., McLean, Sam., McMaster, Andrew R.,

Bolsover, 0 ald M. Springton, P.E.I

Montreal Bristol, Q Toronto, 0 Norbam, 0 Montreal Inverness, $Q$ Westmount, Q Kingsbury, $Q$ West Bolton, Q Earltown, N.S Montreal Stanstead, Q Redgrave Montreal Sawyerville, Q Bolsover, 0
gton, P.E.I Montreal

Macfarlane, Lawrence,
Montreal Mackay, Malcolm, Montreal Macmillan, Talm. R.,Newhaven, P.E.I Mallinsen, Stephen H., London, Eng Moore, Wm., Lachute, $Q$
Montreal Ross, Alex. R Montreal Rowat, Donald McK. Russel, Oolin K., Ryan, Wm. A., Saxe, John G Steacy, Fred. W., Stevenson, James, Trenholme, Arthur K., Westmount, $Q$ Watson, Wm. Kingsbury, Q Watters, Wm. H., Lynn, Mass, U.S Willis, John J., $\quad$ Montreal Wyman, Dan. B., Chute au Blondeau, 0 Wyman, Hiram B.,Chute au Blondeau, 0

A Stude Student.

The figu a class in th

Anderson, F Ascah, R. G1 Bartlett, Leo Blythe, Jno. Boshart, Wu Boyd, Robt. Brown, Asa Brunton,J.N. Cairns, Hug Carruthers, Charleswortl Colborne, Ja Condie, Geo DuBois, H. J. Dickson, W. Ereaux, J. S. Farrell, Chas Ferguson, Ja Forsyth, Sam Greig, Jno. © Halpenny, E. Harrower, G Heeney, Wm Holland, Nev Hopkin, Rob
(1) Andersor
(1) Bartlett, Bean, Be
(1) Blythe, J Bonin, A
(1) Boshart, Bradford
(1) Cairns, E Cameron Campbel
(1) Charlesw Clarke, (
(1) Colborne Down, G Dowson, Greaves, Harding, Heal, G.

## Alexande

 Alexande
## (2) Anderson

(2) Bartlett,
(2) Bean, Bet

Montreal Montreal iven, P.E.I ndon, Eng Lachute, Q Montreal thelstan, $Q$ Montreal
e Rivers, $Q$ Montreal Montreal Montreal stmount, $Q$ ingsbury, Q Mass, U. S Montreal Blondeau, 0 Blondeau, 0

## Partial Students.

A Student who is not an Undergraduate, or Graduate, is called a Prrtial Student.

The figure (1), (2) or (3), prefixed to a name, indicates that the Student takes a class in the corresponding year as well as in that where the name is found.

FIRST YEAR.

Anderson, Fred. J., Montreal Ascah, R. Gordon, Gaspé Peninsula, Q Bartlett, Leonard, South London, 0 Blythe, Jno. J., Montreal Boshart, Wm. P., Uttawa, U Boyd, Robt. M., Belleville, 0 Brown, Asa I., Sombra, 0 Brunton,J.N., Marvelville, Russell Co., 0 Cairns, Hugh G.,
Carruthers, Chris.,
Charlesworth, J. W.,
Colborne, Jas. H. Condie, Geo. D.,
DuBois, H. J., SteElizabeth,CoJolictteQ Dickson, W. Howard, Pembroke, O Ereaux, J. S.,
Farrell, Chas., Montreal Ferguson, Jas. R., Yarmonth, N. S. Forsyth, Sam, St Johns, Newfoundland Greig, Jno. G., Halpenny, E. Wesley, Bear Brook Harrower, Geo. W., Montreal Heeney, IVm Bertal, Danford Lake, Q Holland, Newman H., Montreal Hopkin, Robt., Montreal Sawyerville, Q Aylwin, Q
Sheffield, Eng
Hyndman

Hosmer, Elwood B., Howkins, Cbas. W., Johnston, Jno. L., Lapointe, Cleophas, Lough, D. A.;

Ottawa Macinnes, F. S., Kinloss, Lucknow, 0 Mick, Daniel, Mitchell, Sydney. Mickshurg, ${ }^{1}$ Montreal Morais, G.E.E., Kingston, Jamaica, W I Pack, Edgar W., Pbelan, M. A., Reford, Wm .
Reinhardt, A. E., Roberts, T. E., Rowan, W, L., Runnells, Arthur E., Secord, Albert, Secord, Albert, Shepherd, Harry Laurence Smith, G. S., Stevensun, Ä. R.
Walker, Jno. J., Ormstown Williams, W. J., Montreal Williamson. Arthur W., Shawbridge Wright, J. H., Montreal

Montreal
Fitch Bay, Q Toronto, 0

Toronto, 0 Montreal

Montreal Lancashire, Eng

Pembroke, 0 Egypt, Q
New Durbam, Q
$\qquad$
Toronto, 0

SECOND YEAR.
(1) Anderson, Fred. J.
(1) Bartlett, Leonard Bean, Benj.
(1) Blythe, Jno. J.

Bonin, Alex. F,
(1) Boshart, Wm. P.

Bradford, Wm. G.,
(1) Cairns, Hugh G.

Cameron, Arch. G.,
Campbell, J. D., W.
(1) Uharlesworth, J. W-

Montreal
Montreal
Montreal
Leaksdale, 0
(1) Colborne, Jas. H.

Down, Geo W.,
St. Thomas
Dowso England ,L.BishopAuckland, Eng Greaves, R. H, Liverpool, Eng Harding, Albert E., London, 0 Heal, G. Edgar, St.Johns, Nfld
(1) Heeney, W m. Bertal

Hutehison, Lyman W., Ottawa
Jones, Silas H.
MeGregor, Geo.
McLean,A.S.,Scarp,T'arbert Harris,
Mackay, Hugh., Montr al
(1) Mick, Daniel,
(1) Pack, Edgar W.

Pa، rson, Chas. S., Montreal
Redysth, J. C.,
Rey, Jean
Stewar', Jas. T., Athelstan
Vinona, E. E., Montreal
Walker, Luther J., Kensington, Q Wilkinsoa, Geo. A., Muntreal
(1) Williamson, Arthur $W$.

THIRD YEAR.

[^18]
## 310

(2) Cameron, Arch, G.
(2) Campbell, J. D.
(2) Charlesworth, J. W.
(2) Colborne, Jas. H.
(2) Down, Geo. W.
(2) Dowson, Jas. L.
(2) Greaves, R. H.
(2) Heal, G. Edgar.
(2) Jones, Silas H.
(1) Lough, D. A. Mair, Jno. A.,
(3) Alexander, A. 0
(3) Alexander, J. L.
(3) Anderson, Fred. J.
(3) Blythe, Jno. J.
(2) Boshart, Wm. P.
(3) Bradshaw, Jas. E.
(1) Brown, Asa I.

3rown, W. T., $\quad$ Smith's Falls, 0
(1) Brunton, Jno. N.
(3) Charlesworth, J. W.
(2) Clarke, C. F. E.

Crombie, Geo. L.,Fort Coulonge ${ }^{\prime}$ Q
Dorman, J. A., Seeley's Bay, O
3) Dowson, Jas. L.

Lanark, 0
(2) Mick, Daniel
(2) Pack, Edgar W. Reid, Leslie W.,

Aberfoyle, 0
(1) Roberts, T. E.
1)
Rowan, W. L.
(1) Rowan, W. L
(2) Walker, Luther J.
${ }^{(2)}$ Wilkinson, Geo. A.
(1) Williams, W. J.
(2) Williamson, Arthur W.
fourth year.
Gilmour, F. W., Almonte, 0
(3) Greaves, R. H
(1) Halpenny, E. Wesley

Halpenny, William,Smith's Falls,0
(3) Heal, G. Edgar

McAteer, T. G.,
Stayner, 0 McGuire, Jno. M., Stratford, 0
(2) MacLean $A l l a n$
(3) Mair, Jno. A.

Monsinger, Hy., Winslow, Lincoln
(3) Reid, Leslie W.
(3) Roberts, T. E.
(3) Williams, W. J.
B.A.

Bremner, $\mathbf{W}$ m.,
Graham, Angus A.,
Scrimger, J. Tudor,
Townsend, Wm. McN

Ottawa East Glencoe, 0 Montreal llers' Rest P. E. I.

Wallace, Jas. M Young, Hy.,

North Gower, 0 Blakeney, 0

DONALDA DEPARTMENT.
SPECIAL COURSE FOR WOMEN.
Undergraduates.

> FIRST YEAR.

## Name.

Brooks, Elizabeth A., Buckham, Helen D., Dey, Mary Helena, Garlick, Edythe A. Holman, Caroline E., Jackson, E. Gertrude, Kerr, Grace I., Lundie, Jessie'F., Marcuse, Bella, Murphy, Christian C. Perley, Frances B.

Rorke, Helèn, Sangster Elizabeth, Sever, Hannah D., Sharpe, Ellen, Smith, Lillian A.
Willis, Elizabeth I.,

## School.

McGill Normal School,
Huntingdon Academy,
Simcoe H. S.,
M. G. H. S.,

Prince of Wales Coll., P.E.I. Summerside, P.E.I. M.G.H.S.,

Montreal
Trafalgar Institute, Montreal, Montreal Montreal Collegiate Institute, M G.H.S.,
McGill Normal School,
Girls' H.S. St.John N. B., Upper Mangerville, Sunbury Co., N.B
st. Thomas H. S.,
South Woodslee, 0 McGill Normal School, Montreal, Sherbrooke, Q McGill Normal School, Montreal,St.ChrysostomeQ C. M College, New Westminster, Agassiz, B.C Morrisburg Collegiate Institute, Morrisburg Dunham Ladies' College, Westmount, Montreal

Name. Armstrong, Brodie, Mar Finley, Kat Holiday, An
Howden, Je
Hurst, Isabe
Johnson, He
King, Chris
McDougall,
McGill, 1 . $v$
Parks, Marg
Potter, Lue
Radford, Ja
Reid, Lena
Reynolds, E
Scrimger, a

Name
Bourke-Wri
Brooks, Har
Cameron, $\mathbf{F}$
Carr, Murie
Dover, Mar:
Jordan, Flo

Cameron, M
Doull, Ethel
Galt, Annie
Henderson,
Hinds, Char
Holden, MaI
McBurney, I

Anderson, A Bannister, $M$
Browne, A.
Browne, Joa
Browne, Ka
Campbell, $M$
Carlyon, Ce
Coussirat, A
deCourtenay
Edgar, Kati
Fraser, Wini
Gilmour, Ed
Lamb, Mary
Letendre, Mi
rfoyle, 0
monte, 0
's Falls, 0
tayner, 0 atford, 0
r, Lincoln
Co., 0

Gower, 0 ikeney, 0
esidence.
Montreal ingdon, Q Simcoe, 0 Montreal ide, P.E.I. Montreal Montreal Montreal )anville, Q Montreal ville, Suney Co., N.B oodslee, 0 rbrooke, Q ysostomeQ gassiz, B.C Morrisburg Montreal

## Name.

Armstrong, Catherine,
Brodie, Margt.,
Finley, Kathleen E., Holiday, Annie, Howden, Jennie E., Hurst, Isabel M., Johnson, Helena, King, Christina C., McDougall, Louise, McGill, I. Winifred, Parks, Margaret, Potter, Lucy E., Radford, Janet I., Reid, Lena McK., Reynolds, Elizabeth E.M., Scrimger, dnna M.,

SECOND YEAR.

| School. | Residence. |
| :---: | :---: |
| McGill Normal School, | Bristol, Q |
| Westmount Acad., | Montreal |
| Trafalgar Institute, | Montreal |
| Montreal Collegiate Institute, | Rawdon, Q |
| Stanstead Wesleyan College, | Montreal |
| M. G. H. S, | Montreal |
| Private Tuition, | Montreal |
| Sarnia Collegiate Institute, | Sarnia |
| M. G. H. S., | Montreal |
| Ottawa Collegiate Institute, | Ottawa, 0 |
| Victoria School, Mt. Plea | St. John, N. B |
| McGill Normal School, | New York, N.Y |
| M. G. H. S , | Montreal |
| M. G. H. S., | Montreal |
| Gananoque High School, Ont., | Montreal |
| Trafalgar Institute, | Montreal |

Residence.
Bristol, Q Montreal Rawdon, 0 Montreal Montreal ontreal Montreal Ottawa, 0 St. John, N. B Montreal Montreal Montreal Montreal

THIRD YEAR.

Name. Residence.
Bourke-Wright, K. M. H. Brooks, Harriet, Sherbrooke, Q Cameron, Frances M. T., Kingston, 0 Carr, Muriel B., Dover, Mary V., Jordan, Florence M-,

St. John, N. B
Peterboro, 0

Name.
Pearson, Katie C., Reynolds, M. Edna, Seifert, Ethel M., Shaw, A. Louise, Steen, Alice G-, Walker, Laura F. M.,

Residence. Montreal Montreal Quebec Montreal Farran's Point, $\mathbf{Q}$

FOURTH yEAR.

Cameron, Mary T., Doull, Ethel M., Galt, Annie P., Henderson, Grace, Hinds, Charlotte, Holden, Margaret L., McBurney, Edith E.,

Kingston, 0 Montreal Montreal Montreal Actonvale, Q St. John, N. B St. Lambert, Q

Reynolds, Florence, Ross, Elizabeth, Rugg, M. Alice, Smith, Annie Louise, Stephen, Jennie, Walbridge, Mabel H., Mystic, Q Young, Laura A.,Charlottetown, P.E.I

Montreal Brucefield, 0 Stanstead, Q Montreal Ottawa, 0

## Partial Students.

FIRST YEAR.

| Anderson, Alice G., | Ottawa, O | Loud, Edith M., | Montreal |
| :--- | ---: | :--- | :--- |
| Bannister, Mabelle A., | Montreal | Lovejoy, Clara, | Montreal |
| Browne, A. M., | Montreal | Mattice, J. Corisande, | Montreal |
| Browne, Joanna, | Montreal | Mills, Edna G., | Montreal |
| Browne, Katherine, | Montreal | Mock, Lilian, | Montreal |
| Campbell, Marion, | Montreal | Molson, Mabel, | Montreal |
| Carlyon, Cecile M. | Hants, Eng | Mulholland, Minnie W., | Montreal |
| Coussirat, Ada M, | Montreal | Murphy, Louise I., | Montreal |
| deCourtenay, Alice W., | Montreal | Murphy M. Grace, | Montreal |
| Edgar, Katie, | Montreal | Parsons, Bertha, | Montreal |
| Fraser, Winifred, | Montreal | Pillet, Blanche, | Montreal |
| Gilmour, Edith M., | Montreal | Redpath, Helen L., | Montreal |
| Lamb, Mary L., St. Andrews East, Q | Rose, Mabel, | Montreal |  |
| Letendre, Minnie B., | Montreal | Rothwell, Grace W., | Montreal |

SECOND TEAR.

Allan, A. S.,
Allan, Beatrice I.,
(1) Bannister, Mabelle A.
(1) Browne, A. M,

Buchanan, Alice, Burnet, Mabel,
(1) Campbell, Marion.
(1) Carlyon, Uecile M. Donahue, Eva,
(1) Edgar, Katie.

Fulton, Alice,

- Gault, M. Florence, Going, E. Maud, Granger, Sarah, Johnson, C. King, Ethel,
(1) Letendre, Minnie.

Montreal Montreal

Montreal Montreal

## Montreal

Montreal Montreal

Montreal
Montreal Montreal
(1) Loud, Edith M. Lovell, Flora,
(1) Lovejoy, Clara.
(1) Mock, Lilian,
(1) Molson, Mabel, Molson, Naomi, Munn, J. Isobel,
(1) Murphy, Louise I.
(1) Murphy, M. Grace. Nowers, Winifred, Oswald, Bell, Porter, Sarah H., Reford, Katie F. Rithet, Gertrude
(1) Rose, Mabel.

Smith, E. May Montreal
Williams, Violette M.,

Allen, Samuel Angel, Willia Arkley, Lorne Barber, René Burwell, Erne Byers, Archibs
Callaway, F.W
Cameron, Will
Cary, George
*Coote,Sydne.
Corriveau, Rai
Coussirat, Hen
Cowans, Fred
Currie, Alexan
Donaldson, Hu
Donnelly, Aus
Duncan, Gaile
Ewart, George
Fraser, Juhn W
Forman, Andre
Fournier, Rayr
Gillean, Ruber
Glassco, Jack
*Gordon, Ham
Hamilton, Geor
Hamilton, Jamı
Hatchette, Jose
*Hearn, John F
Hill, Lawrence,
Howard, Lawre
Howard, Ruper
*Hyndman, Wil
Kane, Roderick
Lacroix, Albert.
*Macdonald, Rc
Maclaren, Geor

Archibald, Erne Austin, Claude Bachand, Geo., Blavlock, Selwy Bowman, Archil

Burgess, R. Earl Campbell, Norm Colpitts, Walier Cornwall, Cleme Dargavel, James Davidson, Willia Denis, Leupold, Ewan, Herbert' ${ }^{\prime}$

# FACULTY OF APPLIED SCIENCE. 

Montreal

Montreal Montreal

Montreal Montreal Montreal Montreal toria, B.C

Montreal Montreal

Montreal Montreal Montreal Montreal Montreal

Montreal Montreal Montreal

Montreal Montreal Montreal Montreal Montreal pton, N. B Montreal Montreal

## FIRS T YEAR.

Allen, Samuel J. Angel, William H., Arkley, Lorne M., Barber, René R.,
Burwell, Ernest V.,
Byers, Archibald F.;
Gananoque, 0
Gallaway, F.W., Minneapolis, Minn,U.S
Cameron, William T.,
Cary, George M.,
Goderich, 0
*Coote, Sydney R., St Albans, Vt.U.S.A
Corriveau, Raoul de B., Iberville, Q
Coussirat, Henri A., Montreal
Cowans, Frederick,
Currie, Alexander,
Donaldson, Hugh W.,
Donnelly, Austin J., West

Duncan, Gailen R.,
Ewart, George R., Kilauea, Kanai, Ha.
waiian Islands
Fraser, Juhn W., Charlottetown, P.E.I
Forman, Andrew S.,
Montreal
Fournier, Raymond U., Montreal
Gillean, Robert H., Montreal
Glassco, Jack G.,
${ }^{*}$ Gordon, Hamilton,
Hamilton, George M.,
Hamilton, James,
Hatchette, Joseph C.,
*hearn, John F., St. John's, Newfl'd
Hill, Lawrence, Montreal Howard, Lawrence 0 , Lachine, Q Howard, Rupert F., Lachine, Q
*Hyndman, William E., Charlottetown
P.E.I

Kane, Roderick A. C., Montreal Lacroix, Albert, Montreal
*Macdonald, Roderick B., Glenaladale,
P.E.I

Maclaren, George McG., Ottawa, 0

Macmaster, Arthur W., Montreal McDonald, Willian, Glace Bay, N.S Millar, James L, Pembroke, 0 Miller, Angus K., Bridgeburg, 0 Molson, Kenneth, *! Ioncel, René, Montreal Montgomery, George, Morrisburg, 0 *Morais, Gerald E. E., Jamaica, West Indies
Mowat, William H. M., Montreal
Nelson, George J., Montreal
Neville, Thomas P. J., Halifax, N.S Ogilvie, Norman C, Montreal $\begin{array}{lr}\text { Oshorne, J. Ewarr, } & \text { Toronto, O } \\ \text { Parizean, Henri D, } & \text { Boucherville, Q }\end{array}$ - Penhallow, Dunlap P, Montreal Percy, Howard M. Montreal Pyke, Gordon McT., Montreal - Reeves, James D., *Reford, Lewis L.,'

Grenville, Q Montreal Robertson, Philip W. K., Mexico (Jity, Mexico
Roiland, Jean, St. Jerome, Q Scott, George W., Montreal Scotr, Harry E., $\quad$ Napanee, 0 "Sharpe, G. P.,
Slepherd, Harry L.,
Sise, Paul F.,
Smith, Charles E.,
Smith, George B.,
Staveley, Edward B.,
Si. George, Harr L.,
*Thivierge, René
*Toole, John L.,

- Trenholme, Arihur K., Walker, Frank W, Watson, Robert G., Whiteway, William V.E.. St. Jutr's Newfoundland

SECOND YEAR.

| Archibald, Ernest M., | Halifax, N. S | Fetherstonhangh, Edward P., Montreal |
| :---: | :---: | :---: |
| Austin, Claude V. C., | Ottawa, 0 | Fraser, Charles E, Montreal |
| Bachand, Geo., | Montreal | Fraser, Barold, Brockville, 0 |
| Blavlock, Selwyn | Danville, Q | Fraser, James W., Bridgeville, N.S |
| Bowman, Archiba | w Glasgow, | Gaznon, Louis F., Montreal |
|  |  | Gough. Richard T., Halifax, N. S |
| mpa, Norman |  | Grier, Arthur G., Montreal |
| ampbell, Norman | Montreal | Henderson, Richard A.,Chilliwack, B.C |
| olpitts, Wal:er W. | oncton, N. 13 | Hickey, John V., Montreal |
| Cornwall, Clement A | Asheroft, B.C | Howell, Archibald R., Montreal |
| Dargavel, James S | Elgin, 0 | Hutchinson, William S., Montreal |
| Davidson, William A., | Peterboro, 0 | Hyde, George T., Montreal |
| Denis, Leupold, | Montreal | Hyde, James C., Montreal |
| Ewan, Herbert M., | Montreal | Kirkpatrick, Stafford F., Kingston, 0 |

MacInnes, Henry W., Halifax, N,S

- McKenzie, Bertram S.,

McLaren, Archibald J.,
McLean, William B.,
McLeod, Norman M.,
McMillan, George P.,
Moore, Wm. M.,
Moore, William A.
Morgan, Charles B.,
Nicholls, Henry G.,
-Paterson, Charles S.,
Peden, Frank,
Peden, Frank,

Angel, Fred, W., St
Archibald, Harry P.,
Ainley, Uharles M.,
Atkinson, Donald C. T
Atkinson, William J.,
Bacon, Frederiek T. H
Beatty, David H.,
Benn, Walter W.,
Bond, Frank L. C.
Butler, Percy,
Cape, Edmond,
Davidson, J. Herbert,
Davis, Angus W.,
Dean, Bertram D.,
Eaves, Edmund,
Gisborne, Lionel L.,
Hillary, George M.,
lrving, Thomas T.,
Laurie, Albert,
McKerras, John D.,
Angel, Fred, W., St. Johns, Newfl'd Archibald, Harry P., Antigonish, N.S Ainlev, Charles M., Almonte, 0 Atkinson, Donald C. T., Etchemin, Q Atkinson, William J., Glenboro, Man

Archibald, William M., Balfour, Reginald H ., Bell, John W., Blair, David E., Bovey, Edwa Chicou imi, Q

Burnham, Harold B, Peterboro, 0 Cprapbeli, Alexander,
Cottawa, 0
Camberlain William T., Halifax, N.S.
ovid, William F., Peterboro, $\begin{array}{ll}\text { Davidson, Shirley, } & \text { Montreal } \\ \text { Dougall, Ralph, } & \text { Montreal }\end{array}$
Drinkwater, Charles G., Montreal
Drysdale, George A.,
Edward, John R.,
Ferguson, Thomas,
Finnie, Oswald S.,
Haycock, Richard L.,
Macbean, Stanley L.,
Macdonald, James E.
Truro, N.S
Montreal
Montieal

London, $U$ Montreal Pictou, N.S Montreal
Petrolia, 0
Ottawa, 0
Toronto, 0
Hamilton, 0
Toronto, 0 Montreal
d., N.Y..U.S.A

Toronto, 0
${ }^{\bullet}$ Pergau, Harry,
Porcheron, Alphonse,
Preston John,
*Redpath, J. Herbert, Shaw, John A.,
Stevens, Angus P.,

- Van Horne, Richard B.,

Waller, George W.,
Wenger, Edgar I.,
Whyte, John S.,
Wilson, Robert M.,
Young, William M.,
Yuile, Norman M.,

Lyn, 0 Montreal Toronto, 0 Montreal Montreal Dunham, Q Montreal Bartonville, 0 Ayton, 0 Osgood, 0 Montreal
Renfrew, 0 Montrea!

Dawson, G. H.
Denis, Theoph Farmer, John T Gill, James L.

Barclay, Alex
Beaubien, Jose Keays, Jos. Ale:

Mackie, James D., Kingston station, 0 MacLean, Thomas A., Charlottetown,
P.E.I

MacLennan, Frank W., Cornwall, 0 Macphail, William M., Orwell, P.E I Matheson, Ernest H,, Oyster Bed

Bridge, P.E.I
McCarthy, George $A$,
McLea, Ernest H.,
McRae, John B.
Patton, W. H.,
Reaves, Campbell, Scott, Arthur T,, Scott, James H., Shetfield, Cbarles, Simpson, J. Manley, Summa, Vito M., Thomas, Leonard E. Wilkinson, Charles T.
Young, George A.,

Moncton, N.B
Montreal
Ottawa, 0
Huntingdon, Q Montreal Montreal
Outremont, Q Ringston, 0 Stratford, 0
Avigliano, Italy Vernon River Bridge, P. E. I

Montreal
Kingston, 0
fourth year.
Macdonald, Peter W., West Bay, N. S McKinnon, George ${ }^{\text {D. }}$., Charlottetown, P. E. I

MacLeod, George R.,
Uigg, P.E.I MeKibbin, Fred. W.'J, McLaren, Duncan T.,

Peterboro, 0 Newcombe, A vard B, Lakeville, N.S Ogilvie, Wm M., Cummings' Bridge, 0 Packard, Frank L-, Paradis, Paul, Jonns, 0 Yorston, Louis,

Pitcher, Nor:nan C., Ross, John K.
Sise, Charles F
$\qquad$ Suter, Robert W., Symmes, Howard C., Thomson, Clarence, Thomson, Henry N., Turnbull, John M., Walters, Morley T., White, Frank H. Montreal Montreal Montreal
Toronto, 0 Carleton Place, 0
Outro.s. A
Peterboro, 0 Ottawa, 0 Ottawa, 0 Montreal New Glasgow,

Lyn, 0 Montreal Toronto, 0 Montreal Montreal Dunham, Q Montreal rtonville, 0 Ayton, 0 Osgood, 0 Montreal Renfrew, 0 Montrea!
n station, 0 rlottetown,
P.E.I

Uornwall, 0 rwell, P.E I Oyster Bed iridge, P.E.I loncton, N.B

Montreal
Ottawa, 0 ntingdon, Q Montreal
Montreal lutremont, Q Kingston, 0 Stratford, O gliano, Italy Jelbourne, Q Brantford, 0 Brockville, O Kingston, 0
est Bay, N. S arlottetown,
P. E. I

Uigg, P.E.I Peterboro, 0 Montreal akeville, N.S gs' Bridge, 0 Montreal St. Johns, Q Montreal Montreal Montreal
Toronto, 0 eton Place, 0

Aylmer, Q
Montreal
Quebec, Q Montreal
Hull, Q
Montreal
Pictou, N.S

GRADUATES.

Dawson, G. H., B.A.Sc., Vancouver,
Denis, Theophile, B.A.Sc., Montreal Farmer, John T., B.A.Sc., Liverpool, E Gill, James L. W., Little York, P.E.I

Huestis, Harry E. Halifax, N.S McDougall, W., B.A.Sc., Ormstown, 0 Reinhardt, Carl, B.A.Sc., Montreal Rutherford,Gordon S.,B.A.Sc.,Montreal Rutherford, S. F., B.A.Sc., Montreal

## Partial Students.

| Barclay, Alexander, | Montreal | Leach, Francis E., | Montreal |
| :--- | ---: | :--- | :--- |
| Beaubien, Joseph, | Montreal | O'Brien, Edward M., | Montreal |
| Keays, Jos. Alex., Boston, Mass., U.S.A | Roach, William F., | Montreal |  |

FACULTY OF COMPARATIVE MEDICINE AND
VETERINARY SCIENCE.

Amyrault, 0 .,
Galletly, G.,
Groves, J. W.,

Bell, W. L., Burke, R. H. Cleaves, A. H., Delano, $\mathbf{W}$., Fahey J.,

Hammond, E. W., McGregor, J., Owens, C.,
second year.
Hart, J. B.,
Lambert, G. H.
Paquin, L. A., Pfersick, J. G.,

Kato, Y. (special) Tokyo, Japan.
third year.

Duluth, Minn
Troy, N.Y
Swampscott, Mass
Minnedosa, Man
Rockville, N. S
Sawyerville, Q

Moore, J. C.,
Newcomb, H. H., Parker, J. C. Stevenson, G. S., South Granby, Q
Sugden, B. A., Bowdon, Cheshire, Eng Thayer, W. L., Greenfield, Mass

COLLEGES AFFILIATED IN ARTS.
morrin college, quebec.
Undergraduates.

Fyles, Faith, Hunter, Louise L., Macrae, Donald N.,
FIRST YEAR.

Levis, Q
Quebec Quebec

Ritchie, Jessie R., Rothney, William 0., Leeds Village, Q

SECOND YEAR.
Jackson, Emma,
Laverie, James H.,
Pidgeon. E. Leslie,
Pocock, Cbarles,
New Richmond, Q
Richmond, Q
Hillhurst, Q
Reid, Andrew D.,
Seifert, Frederiek
Quebec

Ewing, Georg

McMichael, Rol

Flint, Mary Fre Flint, Roy A.,

Meiklejohn, Harriet T.
third year.
Quebec $\mid$ Stuart, James A., Montreal

Partial Students.

Aylwin, T.,
Bignell, -
Bonham, E.
Boswell, -
Campbell, W.W.,
Carron, H.,
Ohapman,
Cockburn, F. J.,
Cook, A. H.,
Cook, -
Cook, M.,
Dean, -
Dobbin, Joseph,
Duggan, F. M.,
Duggan, -
Etteriagton, -
Foote, -
Frechette, -
Gale, E.
Gaudet, G. M.
Geggie, D.
Gibson, W.
Gilmour, J.,
Gilmour, -

Gilmour, -
Grant, J. F.,
Hamilton, -
Harrower, A., Holt, Hunter, Douglas, Hunter, Helen,
Lamb, H.,
Langlois, C .
LaRoche, $\dot{W}$. P.,
Laurie, A.,
Lawrence, H., Legaré, W.
Levasseur, N.,
MacLeod, E.,
Macpherson, -
Macrae, -
McArthur, A. H.,
McGee, Annie,
McLennan, -
McQuarrie, -
Monahan, J.,
Pentland, ©. T.,
Piddington, A. G.,

Poston,
Ramsay, Geo.,
Ray,
Reid,
,
Ritchie, A. D.,
Ritchie, -
Rivers, V. B.,
Robertson, A.,
Ross, H.,
Simpson, -
Spence, -
Stevenson, -
Strathy, -
Thompson, J.,
Thomson, -
Thomson, R.,
Walsh, J. E..
Walters, A. E..
Walters, Henry,
Warder, -
Webb, E. E.,
Webb, -
Webster. M.,
Willis, H.,

Quebec s Village, Q

Quebec Quebec m, Falls, Q nnymede, Q

Montreal

Ewing, George E. Melbourne, Q
Partial Students.
McMichael, Robert C•,Windsor Mills, Q - Wadleigh, Wilfrid W., Kingsey, Q

STANSTEAD WESLEYAN COLLEGE.
Undergraduates.
FIRST YEAR.
Flint, Mary Frances, Stanstead $\mid$ Hill, Helen Mabel, Stanstead Flint, Roy A., Derby Line, Vermont Hill, Oliver Wendell, Stanstead

SECOND YEAR.
Rugg, Fred S. Stanstead

SUMMARY.
Students in Law, McGill College............................. ... ...................... 49
" in Medicine, " ...... .................................................. 383
" in Arts :- "
6 )
Men $\left\{\begin{array}{l}\text { Gradnates....................................................................... } \\ \text { Undergraduates..... } \\ \text { Pner }\end{array}\right\}$ $\left\{\begin{array}{l}\text { Undergraduates..... .......................................................... } 85 \\ \text { Partial........ } \\ \hline\end{array}\right.$
$\left\{\begin{array}{l}\text { Graduates .............................................................................. } \\ \text { Undergraduates..... .... } \\ \text { Und }\end{array}\right.$ Partial.............. ${ }_{65}^{59}$
Women394

Total in Arts including Students from other Faculties, about 650
Stadents in Arts, Morrin College.
87
" " " St.Francis College .................. .................................... 3
" " " Stanstead Wesleyan College............ ......... ................. 5
" " Applied Science, McGill College :-
$\left\{\begin{array}{l}\text { Undergraduates, } \\ \text { Partial and Graduates }\end{array}\right\} \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . ~ 223$
". " Veterinary Science.......................................................... 32
3.,
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# (1)bsexvatory. 

Latitucie, N. $45^{\circ} 30^{\prime} 17^{\prime \prime}$. Longitude, $4^{\mathrm{h}} 54^{\mathrm{m}} 18^{\mathrm{s}} .67$.

Height above sea level, 187 ft .
Superintendent-C. H. Mcleod, Ma.E.
Assistant-George R. McLeod, B.A.Sc.
Meteorological Observations are made every fourth hour, beginning $3^{\mathrm{h}} \mathrm{o}^{\mathrm{m}}$ Eastern standard time ; also at $8^{\mathrm{h}} \mathrm{o}^{\mathrm{m}}$ and $20^{\mathrm{h}} 0^{\mathrm{m}}$. Independent bi-hourly temperature observations are also made. The principal instruments employed are the following :-Two standard mercurial barometers ; one Kew standard thermometer; two Pastorelli thermometers; one maximum thermometer; one minimum thermometer ; one set of six self-recording thermometers, with controlling clock, battery, etc. ; two anemometers; one wind vane (wind-mill pattern) ; one anemograph, with battery, etc. ; one sunshine recorder ; one rain-band spectroscope ; and one rain gauge.

The Anemometer and $V^{i}$ ane are on the summit of Mount Róyal, at a point about three-quarters of a mile northwest of the Observatory. They are 57 feet above the surface of the ground and 8io feet above sea level.

Soil temperatures are observed, in co-operation with the Physical Laboratory, by means of platinum thermometers at depths ranging from one inch to nine feet.

The Astronomical Equipment consists of :-The Blackman Telescope ( $61 / 4 \mathrm{in}$.) ; a photoheliograph ( $4^{1 / 2} \mathrm{in}$.) ; a $3^{1 / 4} \mathrm{in}$. transit, with striding level, etc.; a prismatic ( $8 \mathrm{c} . \mathrm{m}$.) transit instrument also arranged as a zenith telescope, a 2 in. transit in the prime vertical; two collimating telescopes; one sidereal clock ; one meantime clock; one sidereal chronometer ; one meantime chronometer ; one chronograph ; batteries, telegraph lines and sundry minor instruments.

Observations for clock errors are made on nearly every clear night. Time exchanges are regularly made with the Toronto Observatory. Time signals are distributed throughout the city by means of the noon time-ball, continuous clock signals, and the fire alarm bells ; and to the country, through the telegraph lines.

The longitude of the Observatory was determined in 1892 by direct telegraphic connection with Greenwich and $\mathbf{v}$ th exchange of observers and instruments. The position is believed to be the most accurately determined in America.
Courses of instruction are given in the use of the meteorological instruments, see page 29. and in astronomical work to the Fourth Year Students in the Civil Engineering Courses, see page 108.

## Medical Ext

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## anniversitg Gnmuasium.

## Medical Examiner and Instructor.-R. Tait McKenzie, B.A., M.D-

The classes, which are open to Students of all the Faculties, will meet at the University Gymnasium, at hours to suit, as far as possible, the convenience of Students, and which will be announced at the commencement of the Session.

The recent addition of some special apparatus enables the instructor to devote some attention to the application of exercise in treating special cases of weakness or deformity, which should be reported to him before the regular class work is undertaken.

The Wicksteed Silver and Bronze Medals for Physical Culture (the gift of Dr. R. J. Wicksteed) are offered for competition to Students of the graduating class and to Students who have had instruction in the Gymnasium for two sessions : the silver medai to the former, the bronze medal to the latter.

The award of these medals is made by Judges, appointed by the Corporation of the University.

Every competitor for the silver medal is required to lodge with the Judges, before the examination, a certificate of good standing in the graduating class signed by the Dean or Secretary of the Faculty to which he belongs, and the m dal will not be awarded to any Student who may fail in his examination for the degree.

Classes for the Students of the Ionalia Spfctal. Coursu for Wompy will be conducted by Miss Barrjum at hours found most suitable.

## REGULATIONS

CONCERNING THE MANAGEMENT OF

## THE COLLEGE GROUNDS AND ATHLETICS.

All matters relating to the management of the College grounds and of Out-Door Athletics and Sports are under the control of a Committee consisting of :-

One Governor.<br>The Principal.<br>One Member of the Faculty of Arts.<br>One Member of the Faculty of Applied Science.<br>One Member of the Faculty of Law.<br>One Member of the Faculty of Medicine.<br>One Member of the Faculty of Comp. Medicine.<br>One Graduate.<br>One Undergraduate, member of the Football Club.

One Undergraduate, member of the Tennis Clubs. One Undergraduate, member of the Cricket Club. One Undergraduate, member of the Hockey Club. The President of the Athletic Association.
The several Members of the Committee are elected annually by their respective bodies; and the Committee meets for organization on the first Saturday of February in each year. The Undergraduate Members of the Committee are entitled to vote only on matters relating to Athletics.

The following extracts are made from the rules and regulations of the Committee, for the guidance of Members of the University and the several Athletic Clubs and Associations which are from time to time permitted to use the grounds :

The University and McTavish Street gates shall be closed between 6 p.m. and 7 a.m. on week days and the whole day on Sunday.

The Sherbrooke Street gates shall be closed between io p.m. and 6 a.m.

Such persons as are entitled to use the Grounds shall be provided with tickets renewable each year.

Those entitled to tickets are the Members of the University and prominent Benefactors, and the families of Governors and Professors.

The several Clubs shall be permitted to issue special tickets (without charge), entitling the holders to admission to the Grounds for the purpose of viewing matches, or for other special occasions of public interest.

All Students desirous of taking part in football matches, or otherwise engaging in violent athletic contests, must pass a medical examination, to be held under the direction of the Superintendent of the Gymnasium. A complete record of all such examinations shall be kept by the Superintendent or other officer appointed to this duty.

All Clubs must submit their Regulations, Rules and By-Laws, and any changes in the same, for the approval of the Committee. They must make application for the use of such portions of the Grounds as they require, and for any special privileges.

The Athletic Association must submit its programme for each year for the approval of the Committee.

All Undergraduates of the University are required to pay a fee of two dollars ( $\$ 2.00$ ) for the use of the Grounds. The amount so paid is handed over to the Committee, and is by it expended in the interest of College Athletics and in the permanetic improvement of the Grourids.

The housi dents' cub, members of $\$ 12.50 \mathrm{a}$ mon available for D. P. Penha

GRADU

President. -
Vice-Presid, Derick, M.A. Secretary.Montreal.

Treasurer.-
Resident $C_{1}$
B.A., B.C.L. ;
H. M. Jaquay

Non_Residen
I. M. Powell, N.B.; Robert LL.D., New

APPL

Via
Seor
Kesident ©
R. F. Ogilvy, : Non-Resideni
A. Walkem, T

Dobson, King

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## MCGILL STUDENTS' CLUB.

 ganization :rgraduate latters re-egulations Jniversity from time osed beta Sunday.
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provided ersity and 'rofessors. :ets (withounds for :asions of
or otheradical exendent of ions shall this duty. Jaws, and ee. They Grounds for each
pay a tee mount so led in the rement of

The house No. 73 McGill College Avenue is now open as a Students' cub, under the management of a Committee consisting of members of the University. Board can be obtained at the sate of $\$ 12.50$ a month, or $\$ 3.00$ a week. A limited number of rooms are available for residence. For further information apply to Professor D. P. Penhallow, Secretary of Committee.

## UNIVERSITY LITERARY SOCIETY.

ESTABLISHED 1869.
GRADUATES' SOCIETY OF MCGILL UNIVERSITY.
INCORPORATED 24 TH JULY, 1880 .
Officers 1897-98.
President. -Peers Davidson, M.A., B.C.L.
Vice-Presidents -Miss H. I. R. Botterell, B.A. ; Miss Carrie Derick, M.A.; F. G. Finley, B.A., M.D., C.M.

Secretary.-A. R. Holden, B.A., B.A.Sc., 377 Mountain Street, Montreal.

Treasurer.-Francis Topp, B.C.L.
Resident Councillors.-Frank D. Adams, Ph.D.; H. V. Truell, B.A., B.C.L. ; A. McArthur, B.A. ; H. B. W. Carmichael, M.D. ; H. M. Jaquays, B.A., B.A.Sc. ; R. A. Gunn, B.A.Sc.

Non_Resident Councillors.-Hon. Justice Lynch, Knowlton, Que;; I. M. Powell, M.D., Victoria, B.C. ; G. M. Duncan, M.D., St. John, N.B.; Robert Cassels, Q.C., Ottawa, Ont. ; Rev. E. H. Kranz, LL.D., New York ; E. A. Meredith, LL.D., Toronto, Ont.

## APPLIED SCIENCE GRADUATES' SOCIETY.

ORGANIZ"N IXOE.
Hon. President-Prof. Henry T. Bovey. President-Thomas W. Lesage.
Vice-President-Asst. Prof. Richard S. Lea. Secretary-Treasurer-Asst. Prof. C. B. Smith. Kesident Committee - E. S. M. Lovelace, Walter C. Adams, R. F. Ogilvy, S. F. Rutherford, R. H. Jamieson.

Non-Resident Committee-H. K. Wicksteed, Cobourg, Ont.; Geo. A. Walkem, Toronto ; Jas. S. Costigan, Black Lake, Que.; G. S. Dobson, Kingston, N. B.; H. E. Huestis, Halifax, N.S.; W. J.

Sulman, Charlottetown, P.E.I.; D. A. Stewart, Winnipeg, Man. ; R. E. Palmer, Vancouver, B.C. ; C. H. McNutt, Leadville, Colorado; J. P. Ball, Lemont, Ill.; G. H. Frost, New York; R. O. King, Harvard, Cambridge, Mass.

## ALUMNA SOCIBTY OF McGILL UNIVERSITY.

President-Miss E. Binmore, M.A.
Vice-President-Miss A. Hunter, B.A.
Cor.-Secretary-Miss C. M. Derick, M.A. Assistant Cor.-Sec-Miss E. Armstrong, B.A.

Rec. Secretary-Miss E. Tatley, B.A.
Treasurer-Miss I. Botterell, B.A.
Additional Members of Committee of Management of Girls' Club Miss Helen R. Y. Reid, B.A. ; Miss Kate Campbell, B.A.

## OTPAWA VALLEY GRADUATES' SOGIETY.

organized I890.
Honorary President-Hon. Wilfrid Laurier, B.C.L. President-Robert H. Conroy, B.C.L. (Aylmer). ${ }^{18 t}$ Vice-President-C. J. H. Chipman, B.A., M.D., C.M. ${ }^{2 n d}$ Vice_President-W. F. Ferrier, B.A.Sc., F.G.S. ${ }_{3}$ rd Vice-President-Robert A. Klock, B.A., B.C.L.
Treasurer-R. W. Ells, M.A., LL.D., (Geol. Survey office, Ottawa). Secretary-Alfred E. Barlow, M.A. (Geol. Survey).
Committee-Wm. C. Cousens, M.D., C.M. ; Howard A. Honeyman, B.A. (Aylmer) ; Robert A. Cassels, B.A., Q.C.; Arthur A. Cole, B.A., B.A.Sc. ; S. P. Cooke, M.D., C.M.

## NEW YORK GRADUATES' SOCIETY OF MCGILL UNIVERSITTY.

organized 1895.
President-Rev. Edward H. Kranz, M.A., LL.D.
Vice_Presidents-Wolfred D. E. Nelson, M.D.; James A. Meek, M.D. ; Wm. de Courcy Harnett, B.C.L.

Secretary -W. Ferguson, M.D., II3I Tinton Ave., New York.
Treasurer-Hiram N. Vineberg, M.D.
Executive Committee-Rev. J. J. Rowan Spong, M.A., B.C.L., LL.B. ; Geo. C. Becket, M.D. ; James A. Stevenson, B.A.Sc.

Non-Resident Councillors-Right Rev. J. D. Morrison, M.A., D.D., Bishop of Duluth ; Rev. Charles Bancroft, M.A., New Hampshire ;

William Osle
Neb. ; Rev. J B.A., Derby,

McGII

Secretary

Executive
B.A. ; P. E.

Pringle, M.D.

THE BRITIs

Hon. P
President-
Vice-Presidents. (Victoria) ; D.

TreasurerSecre
Executive Con R. E. McKec (Vancouver) ; Gregor, B.A.S

McGILL GR

President-
Ist Vice-P)
Secretary-Tr
Executive Co
F. H

## 323

Eg, Man. ; Colorado; O. King,
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A. HoneyArthur A.

## ILL

## D.

A. Meek,
:w York.
A., B.C.L., A.Sc.
M.A., D.D., Hampshire ;

William Osler, M.D., Baltimore, Md. ; Thomas Kelly, M.D., Omaha, Neb. ; Rev. J. C. Bracq, Vassar College, N.Y. ; H. Holton Wood, B.A., Derby, Conn.

## McGILL GRADUATAS' SOCIETY OF TORONTO.

organized 1896.
Hon. President-E. A. Meredith, LL.D. President-J. J. MacLaren, Q.C., LL.D. ${ }_{1}$ st Vice-President-H. A. Burritt, M.D. 2nd Vice-President-A. R. Lewis, B.A., Q.C. Secretary-R. B. Henderson, B.A., 24 Adelaide street East. Treasurer-A. H. U. Colquhoun, B.A.
Executive Committee-J. Algernon Temple, M.D. ; C. Swabey, B.A.; P. E. Ritchie, B.A.; Rev. Canon Sweeney, D.D.; George Pringle, M.D. ; Frank Pedley, B.A.

## THE BRITISH COLUMBIAN SOCIETY OF GRADUATES OF McGILL UNIVERSITY.

organized 1896.
Hon. President-I. W. Powell, M.D., C.M. (Victoria).
President-S. J. Tunstall, B.A., M.D., C.M. (Vancouver).
Vice_Presidents-O. Morris, M.D. (Vernon) ; W. A. Carlyle, Ma.E. (Victoria) ; D. W. Eberts, M.D. (Wellington) ; G. W. Boggs, M.D.
(New Westminster).
Treasurer-W. A. DeWolf Smith, M.D., (New Westminster). Secretary-W. J. McGuigan, M.D. (Vancouver).
Erecutive Committee-Arthur E. Hill, B.A.Sc. (New Westminster); R. E. McKechnie, M.D. (Nanaimo) ; A. M. Robertson, M.D. (Vancouver) ; R. E. Palmer, B.A.Sc. (Vancouver) ; J. M. McGregor, B.A.Sc. (Rossland).

## MCGILL GRADUATES' SOCIETY OF NEW BRUNSWICK.

ORG ANIZED 1896.
President-W. W. White, M.A., M.D. (St. John, N.B.). ${ }^{1}$ st Vice-Pres.-G. W. Fieming, M.D. (Petitcodiac, N.B.).
Secretary-Treasurer-J. H. Scammell M.D. (76 Waterloo St., St. John, N.B.).
Executive Committee-T. L. Kenney, M.D. (St. John, N.B.) ; F. H. Wetmore, M.D. (Hampton, N.B.).

## NOVA SCOTIA SOCIETY OF MCGILL GRADUATES.

organizrd 1896.
Hon. President-John McMillan, M.D. (Pictou).
President-Rev. Robt. Laing, M.A. (Halifax). ${ }_{1}$ st Vice-Pres.-A. P. Reid, M.D. (Halifax). ${ }^{2 n d}$ Vice-Pres.-A. A. Mackay, B.A. (Halifax). Secy.Treas.-W. H. Hattie, M.D. (il Spring Garden Road,Halifax). Executive Oommittee-E. A. Kirkpatrick, M.D. (Halifax) ; E. V. Hogan, M.D. (Halifax) ; S. Bonnell, M.D. (Bridgewater).

UNDERGRADUATES' LITERARY SOCIETY.
constituted 188.
officers for 1897-8.
President-Andrew R. McMaster, B.A. ${ }_{18 t}$ Vice-Pres.-W. Gordon Bishop, Arts, ' 98. $2^{\text {nd }}$ Vice_Pres.-Reginald H. Rogers, B.A., Law, '98. Secretary-J. Armitage Ewing, B.C.L. As8ist.-Seoretary-Frank Horsfall (resigned), Arts, 1900;

Lemuel F. Robertson, Arts, '99. Treasurer-Arthur K. Trenholme, B.A.
Committee-Samuel G. Archibald, B.A.; George McLeod, B.A. Sc. ; E. Edwin Howard, B.A., Law, '98; John C. Colby, Arts, '98; Lemuel F. Robertson, Arts, '99.

DELTA SIGMA SOCIETY.
established 1884. officers for 1897.98 .
President-Muriel Carr.
Vice-President-Kathleen Finley. Sec.-Treasurer-Helena Dey.
Committee-Misses F. Botterell, Walker and McDougall.

## McGILL COLLEGE YOUNG MEN'S CHRISTIAN ASSOCIATION.

Овјғст.-To promote the piety of its members and the cause of Christianity in the University.

Members"l. -The active Membership of the Association shall consist of Graduates and Students of the University who are members. of some Protestant church. Any Graduate and Student of good moral character may become an associate member. A social reception is given to new students at the beginning of the session.
.

OFFICERS FOR 1897.
Hon. President-Sir Wm. Dawson.
President-H. P. Archibald, App. Sc., '98.
1- 1 1st Vice-President-R. C. Paterson, Arts, ' 98.
Ind Vice-President-A. H. Gordon, Med., '99.
Recording Secretary-W. B. McLean, App. Sc., '99.
Treasurer-W. S. Galbraith, Med., '98.
Asst.-Treasurer-J. G. Greig, Arts, 1900.
Representative from Law-R. H. Rogers, B.A., '98.
Sepresentative from Comparative Medicine-Mr. Delanoe, ' 98.
General Secretary-A. H. Grace, Arts, '98.
chairmen of committees.
Religious Meeting-Prof. H. F. Armstrong.
Bible Study-A. H. Gordon, Med., '99. Social-C. Ogilvy, B.A., Med., '98. Membership-N. D. Keith, B.A., Theol., '98. Missionary-H. P. Luttrell, Arts, '99.
Musical-A. G. Cameron, Arts, '99. Finance-W. S. Galbraith, Med., '99. Handbook-A. H. Grace, Arts, '98.
Building-H. P. Archibald, Sc., '98.
Graduate-W. F. Hamilton, M.D.

## YOUNG WOMEN'S CHRISTIAN ASSOCIATION.

established 1887 (as Theo Dora Society).
Object.-The development of Christian character in the members, and the development of active Christian work, particularly among the young women of the University. Open for membership to students of the Donalda Special Course for Women.

President-A. Louise Shaw.
Vice-President-Christina King.
Cor.-Secretary-Ethel Seifert.
Rec.-Secretary-Lillian Smith.
Treasurer-Helena Dey.
convenfrs of committres.
Devotional-A. G. Steen.
Theo Dora-Christina King.
Membership-Anna Scrimger.
Relief-Maude Reynolds.

## MeGILL COLLEGE CLASSICAL CLUB.

For the purpose of fostering a greater interest in and promoting the further study of Classical Languages, Literature and Art.

OFFICERS FOR 189798.
Hon. President-Principal Peterson.
President-Prof. A. Judson Eaton, Ph.D. (Leipsic).
${ }_{1}$ st Vice-President-J. G. Saxe, B.A.
${ }_{2}$ nd Vice-President-T. R. Macmillan, B.A.
Secretary-M. C. Heine, Arts, '98.
Hon. Treasurer-Prof. Chas. E. Moyse, B.A. (London).
Treasurer-D. W. Munn, Arts, '98.
Exeeutive Oommittee- E. E. Howard, Law, '98; C. S. Hickson Law, '98; S. B. Slack, M.A.

MCGILL UNIVERSITY ATHLETIC ASSOCIATION.
edtablished 1884.
officers for 1897-98.
Hon. President-Principal Peterson.
Hon. Treasurer-R. F. Ruttan, B.A., M.D.
President-W. Lynch, Med., '98.
Vice_President-J. C. Colby, Arts, '98.
Secretary-K. Molson, App. Sc., '99.
Treasurer-R. A. Shore, Med., '99.

## MeGILL UNIVERSITY RUGBY CLUB.

Hon. President-Principal Peterson.
Hon. Treasurer-N. D. Gunn, M.D.
President-Nathaniel Grace, Med., '98.
Vice-President-Kenneth Moișon, App. Sc., '99.
Manager-Gordon Alley, Med., '98. Hon. Secretary-Arthur K. Trenholme, B.A.

Treasurer-David A. Whitton, Med., '98. Captain, 1 st XV. - Shirley Davidson, B.A. Sc.

Committee.-Arts : H. T. Burton, J. L. Todd. App. Sc. : E. H. McLea, P. Sise. Medicine : W. H. Hill, B. W. D. Gillies. Law : J. R. Kennedy, M. Robertson. Veterinary Science: W. B. Wallis, J. P. Spanton.

## 327

## MeGILL UNIVERSITY CRICKET CLUB.

promoting Art.
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Sc. : E. H.
llies. Law:
B. Wallis,

President-Prof. C. E. Moyse, B.A. Vice-President.-F. W. Hibbard, B.C.L. Secretary-Treasurer-Arthur B. Wood, B.A. Captain-A. H, Grace, Arts, '98.
Executive Committee-A. R. Oughtred, B.C.L.; J. F. Mackie. B.C.L. ; E. McLea, Sc., '98; Geo. Lyman and H. C. Hill.

## MoGILL LAWN TENNIS CLUB.

Hon. President-Prof. H. L. Callendar. President-S. G. Archibald, B:A. Vice-President-W. B. Wallis, Vet. Sc., '98. Secretary-John G. Saxe, B.A. Treasurer-E. A. Grafton, M.D.
Committee-F. Nicholson, Med, '98; R. C. Patterson, Arts, '98 = F. Bacon, App. Sc., '99; J. Kennedy, Law, '98 ; J. G. Pfersick, Ven Sc., '98 ; G. H. Mathewson, B.A., M.D.

## MCGILL UNIVERSITY GLEEE AND BANJO CLUB.

officers ror 1897-98.
Hon. President-Dr. Harrington.
President-W. F. Carter, B.A.Sc., Law, '99.
Vice-President-W. W. Colpitts, App. Sc., '99. Seoretary-R. V. Patterson, Med., '98.
Leader of Banjo Club-H. H. Hilborn, App. Sc., '9R. Leader of Mandolin Club-D. F. Wood, Med., '98. Leader Glee Club-P. T. Moore, Arts, '98. Asst. Leader Glee Club-M. M. Burke, Arts, '99. Business Manager-
Asst. Business Manager-A. F. Byers, App. Sc., 1900

## BENEFACTORS OF

## Whiccill ailniversity, \%hontreal.

## I. GENERAL ENDOWMENTS AND SUBSCRIPTIONS.

## 1. ORIGINAL ENDOWMENT, 1811.

THE HONORABLE JAMES McGLLL, who was born at Glasgow 6th Oct., 1744, and died at Montreal, 19th Dec., 1813, by his last will and testament, under date 8th January, 1811, devised the estate of Burnside, situated near the city of Montreal, and containing forty-seven acres of land, with the Manor House and Buildings thereon erected, and also bequeathed the sum of ten thousand pounds in money unto the "Royal Institution for the Advancement of Learning," a Corporation constituted in virtue of an Act of Parliament passed in the Forty-first Year of the Reign of His Majesty, King George the Third, to erect and establish a University or College, for the purpose of Education and the advancement of learning, in the Province of Ioower Canada, with a competent number of Professors and teachers to render such Establishment effecual and beneficial for the purposes intended; requiring that one of the colleges to be comprised in the said University should be named and perpetually be known and distinguished by the appellation of "Mc̈Gill College." value of the above mentioned property was estimated at the date of the bequest at
-
$\$ 120,000$

## 2. UNIVERSITY BUILDINGS, ETC

Thr Willaam Molson Hall, being the west wing of McGill College buildings with the connecting Corridors and Class Rooms, was erected in 1861, through the muniticent donation of the founder whose name it bears.
Tae Petrr Redpath Musedu, the gift of the donor whose name it bears, was annonnced by him as a donation to the University in 1880, and formally opened August, 1882.
Lots for University buildings adjoining the College grounds confronting on McTavish St., presented by J. H. R. Molson, Esq.,- $\$ 42,500$.
The Petrr Redpath Library Building, the gift of Peter Redpath, Esq, annonnced hy him as a gift to the University in 1891, and formally opened Uct. 31 st, 1893.
Univkrsity Oppices, Rooms in East Wing remodeled and furnished for offices of Principal and Secretary and for a Board Room by W. C. McDonald, Esq., in 1395.

## 3. ENDOWED CHAIDS, ETC.

The John Frothingham Principal Fund, to be invested for the endowment of the Principalship of the University; founded in 1889 by the Rev. Frederick Frothingham and Mrs. J. H. R. Molson, $-\$ 40,000$.
4. ENDOWMENTS AND DONATIONS OF MEDALS AND PRIZES.

In 1883 a Gold, Silver and Bronze Medal were given by R. J. Wicksteed, Es $q$., M.A., LL.D., for competition in "Physical Culture" by Stadents in the Graduating Slass and 2nd year of any Faculty, who have attended the University Gymnasium. The Gold Medal was continued to 1889 and the Silver and Bronze bave been continued to date.

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Harrizon St
Henry Chap
Hon. Peter
John James
Thomas Bro Peter Redp
Thomas M.
Joseph McK
Donald Lorn
Hon. Sir Jol
Charles Ale
For

John Frothi
William Mol Willaam C. Thomas Wor
J. H. R. Mols

John McLen
B. Gibb, Esq

Messrs. A. \&

Hugh McLen
G. A. Drumm Geo. Hague, M. H. Gault, Andrew Rob Robertson Ca Sir Jos. and I Mrs. Andrew Alexander M Miss Orkney. Hector McKe

Ottawa Valley Graduates' Society's Exhibition. For competition by candidates from the Ottawa Valley at the June matriculation examinations of any Faculty. Value, $\$ 50.00$. Given annually since 1895.
A Prize given by the British Columbia Society of Graduates of McGil! University to be divided amongst the fige Faculties. Annual value $\$ 50.00$. Given in 1896.

## 5. SUBSCRIPTIONS TO GENERAL ENDOWMENT.

 nent, under ear the city anor House n thousand nt of Learnit passed in he Third, to ucation and vith a comment effecone of the d and peril College." date of the.. $\$ 120,000$
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1856.

John Frothingham, Esq............ $\$ 2000$
John Torrance, Esq................... 2000
James B. Greenshields, Esq. ...... 1200
William Busby Lambe, Esq ...... 1200
Sir George Simpson, Knight...... 1000
Henry Thomas, Esq ..... ............. 1000
John Redpath, Esq ................... 1000
James McDougall, Esq ............... 1000
James Torrance, Esq ...... ............ 1000
Hon. James Ferrier................... 1000
Harrizon Stephens, Esq ............... 800
Henry Chapman. Esq ................ 600
Hon. Peter McGill .............. ..... 600
John James Day, Esq ........ ...... 600
Thomas Brown Anderson, Esq.... 600
Peter Redpath, Esq........ ......... 600
Thomas M. Taylor, Esq ............ 600
Joseph McKiy, Esq ........ ......... 600
Donald Lorn McDougall, Esq.... 600
Hon. Sir John Rose ................. 600
Charles Alexander, Esq ...... ...... 600
Forward ................... $\$ 19,200$
Forward ............... $\$ 19,200$
Moses E. David, Esq ................. 600
Wm. Carter, Esq .......... ......... 600
Thomas Patton, Esq ..... ............ 600
Wm. Workman, Esq ..... ............ 600
Hon. Luther H. Holton.............. 600
Henry Lyman, Esq ................... 600
David Torrance, Esq................... 60)
Edwin Atwater, Esq.................. 600
Theodore Hart, Esq........ ......... 600
Wm. Forsyth Grant, Esq ........... 600
Robert Campbell, Esq …. ......... 600
Alfred Savage, Esq ..... ............ 600
James Ferrier, jun., Esq ........... 600
William Stephen, Esq...... ......... 600
N S. Whituey, Esq ...... .. ......... 600
William Dow, Esq ....... ........... ${ }^{600}$
William Watson, Esq ........ ...... 600
Edward and Alicia Major, ......... 600
Hon. Sir A. T. Galt...... ............ 360
John R. Esdaile, Esq ................. 200
Total ................. $\$ 30,560$
1871.

John Frothingham, Esq ............ $\$ 51511$
Wiltiam Molson, Esq ............... . 5000
Willıam C. McDonald, Esq ....... 5000
Thomas Workman, Esq ...... ...... 5000
J. H. R. Molsor, Esq ................. 2000

John McLennan, Esq ........ ....... 1000
B. Gibb, Esq ........ ...... ..... ...... 600

Messrs. A. \& W. Robertson...... 600
Forward.................... $\$ 24,350$
Forward

$\$ 24,350$
T. W. Ritchie, Esq ..... 300
Messrs. Sinclair, Jack \& Co ..... 250
John Reddy, M D ..... 100
Wm. Lunn, Esq ..... 100
Ho.i. F. W. Torrance ..... 60
Wm. Rose, Esq ..... 50
Total ..... $\$ 25,210$

> 1881-83

Hugh McLennan, Esq... .......... $\$ 5000$
G. A. Drummond, Esq............... 4000

Geo. Hague, Esq .. ..................... 3000
M. H. Gault, Esq . ............... 2000

Andrew Robertson, Esq ......... 1000
Robertson Campbell, Esq ........... 1000
Sir Jos. and Lady Hickson ......... 1000
Mrs. Andrew Dow...................... 1000
Alexander Murray, Esq.. .......... 1000
Miss Orkney............................... 1000
Hector McKenzie, Esq............... 1000

Forward...................... $\$ 21,000$
O. S. Wood, Esq...... .............. 1000
J. B. Greenshields, Esq (London) 1000

Warden King, Esq.................... 1000
W. P. Cumming, Esa............. .. 1000

Mrs. Hew Ramsay ................... 500
R. A. Ramsay. Esq .... ............ 500
H. H. Wood, Esq ....................... 500

James Burnett, Esq.................. 500
Charles Gibb, Esq ................... 500
J. S. McLachlan, Esq .............. 200

Forward ......... . ....... $\$ 21,000$

Total.................. $\$ 27,700$

1883-84.
Edward Mackay, Esq $\qquad$
9. SUBSCE

Peter Redp William Mc Harrison St
Robert J. R
John H, R.
Sir Wm. E.
John Molso
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10. SUBSC
8. SUBSURIPTIONS FOR CURRENT EXPENSES, 1881-82.

Principal Dawson.
. $\$ 1,000$
J. H. R. Molson, Esq.... ............... 1,000 per annum, 5 years, being...... 5,000
George Stephen, Esq...... .......... 1,000

David Morrice, Esq..................... 200 " 6 ........ 1,000
Messrs. Gault Brothers \& Co.... .... 200 . $\quad$ " $\quad$ " $\quad$ " $. . . . .1,1,000$
Messrs. S. H. \& A.S. Ewing ...........? 200 " 6 "
Hon. Robert Mackay.................... 300 " 200 ". $2 . .$.

$\begin{array}{llllllll}\text { Geo. M. Kinghorn, Esq } \ldots . . . . . . . . . . . . . . . ~ & 100 & 6 & 5 & \text {...... } & 500 \\ \text { David J. Greenshields, Esq..... ..... } & \text {.... } & & & . . & 300\end{array}$
Thomas Craig. Esq........................ 100 " 2 ...... 200
John Rankin, Esq........... .......................................................... ........... 200
John Duncan, Esq... ..... ......................................................................................... 200
George Brush, Esq., $\$ 25$ for five years, being .............. ............................. 125
Robert Benny, Esq ......................................... .................................... 100
Miss E. A. Ramsay ............................ ........................ ............................ 100
Hugh Paton, Esq., $\$ 50$ for two years, being ............................... ............. 100
J. M. Douglas, Esq ............................................ .......... ......... .............. 50

James Court, Esq .................. .......................................................................... 50.
Total.................. $\$ 22,025$
1887-88.


William Mc John H. R.
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Mrs. Redpat
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Wm. Molso ment of a
9. SUBSCRIPTIONS FOR A BUILDING FOR THE CARPENTER COLLECTION OF SHELLS.
1868.

Peter Redpath, Esq.................. \$ $\$ 500$
William Molson, Ese 500
Harrison Stephen, Esq 100
Robert J. Reekie, Esq................ 100
John H. R. Molson, Esq 100
Sir Wm. E. Logan, F.R.S.
John Molson, Esq..... .......... 100
Thos, Workman, Esq., M.P
Forward $\qquad$ \$1,600

Forward.

$\$ 1,600$

Geo. H. Frothingham, Esq..................
$\$ 1,600$
100
Wm. Dow, Esq …................... 100
Thos. Rimmer, Esq.................... 100
Andrew Robertson, Esq .......... 100
Mrs. Redpath...... ................... 100
Benaiah Gibb, Esq .................. 50
Honorable John Rose................ 50
Total..................... $\$ 2,200$

## 10. SUBSCRIPTIONS FOR THE EREOTION OF THE LODGE AND GATES.

## 11. LIBRARY AND MUSEUM,

## Special Collections of Books presented to the Library.

1. The Peter Redpath Collection of Historical Books, presented by Peter Redpath. Esq., of Montreal, 3,500 Volumes, with subsequent additions.
2. The Robson Collection of works in Archæology and General Literature, presented by Dr. John Robson, of Warrington, England, 3,436 Volumes.
3. The Charles Alexander Collection of Classical Works, presented by C. Alexander, Esq., of Montreal, 221 Volumes.
4. Frederick Griffin, Esq. Q.C., Collection of Books, being the whole of his Library, bequeathed by his will, 2695 Volumes.
5. The Hon. Mr. Justice Mackay, Collection of Books, being the whole of his Library, 2007 Volumes.
6. The "T. D. King Shakespeare Collection," presented by the Hon. Sir Donald A. Smith and W. C. McDonald, Esq., of Mentreal, being 214 Volumes.

## Endowments for Library.

Hon. F. W. Torrance for Endowment of Mental and Moral Philosophy Book Fund (1876)...... $\$ 1,000$
Mrs. Redpath, for the Endowment of the Wm. Wood Redpath Library Fund (1881)...... 1,000
Wm. Molson, Esq., for Endowment of a Library Fund (1871) 4,000

Forward .............. $\$ 6,000$

Forward
. $\$ 6,000$
A friend, by the Hon.F. iv. Tor. rance, for Endowment of a Library Fund (1882) .............. Hugh S. McLennan, Library Endowment, a gift from Estate late Hugh S. McLennan to the Library of McGill College, the income to be applied to binding (1892)

## 332

Subscriptions, etc., to Library.

Jobn Thorburn, for purchase of Books Andrew Drummond, do., for Applied Science.
The Graduates in Arts and Applied Science of 1885 for purchase of Books ... do do of 1886 $\qquad$ The late R. A. Ramsay, Esq., Bequest for purchase of books (1887)

Andrew Drummond, Esq., to Library Fund of Faculty of Applied Science $\qquad$ 25
Hon. Sir Donald A. Smith, for purchase of books from the R. W. Boodle Library 200

Forward

## Special Collections presented to the Museum.

1. The Holmes Herbarium, presented by the late Andrew F. Holmes, M.D.
2. The Carpenter Collections of Shells, presented by the late P. P. Carpenter, Ph.D.
3. The collection of Casts of Ivory Carvings issued by the Arundel Society, presented by Henry Chapman, Esq.
4. The MeCulloch Collection of Birds and Mammals, collected by the late Dr. M. McCulloch of Montreal, and presented by his heirs,
5. The Logan Memorial Collections of Specimens in Geology and Natural History, presented by the heirs of the late Sir W. E. Logan, LL.D., F.R.S.
$\approx$ 6. The Dawson Collection in Geology and Palæontology, being the Private Collections of Principal Dawson, presented by him to the Museum.
6. The Bowles Collection of Lepidoptera, presented by W. C. McDonald, Esq., and J. H. Burland, Esq.
7. R. Morton Middleton, jr., London, Eng., Collection of Plants. (See also "List of Donations to the Library and Museum," printed in the Annual Report of the University and Report of the Museum.)

Endowment for the Museum
Wm. Molson, Esq., for the Endowment of a Museum Fund (1873) $\$ 2,000$

Subscriptions, etc., for the Museum.
T. J. Claxton, Esq., for purchase of Specimens for Museum........ Peter Redpath, Esq., for Museum expenses, $\$ 1,000$ per annum from 1882 to 1893 $\qquad$ M........
Mrs. Peter Redpath, for Museum
expenses, 1894 to $1896 \ldots . . . . . .$. Mrs. H. G. Frothingham, for the arrangement of Dr.Carpenter's Collection of Mazatlan shells.. 233
Peter Redpath,Esq., for improvements to Museum (1891) ......... 1,000
Forward..............\$17,483

Forward....... ...... $\$ 17,483$
A Lady, for Museum Expenses from 1882 to $1 \times 94$.................
A friend for the purchase of specimens for the Museum. urchase. John H. R. Molson, for purchase
of book on "Buttertlies of Eastern U.S. and Canada"..... 4,300 Eastern U.S. and Canada,"....
Hon. Sir Donald A. Smith, for mounting skin and skeleton of Musk Ox

Total $\qquad$ \$28,983

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## 333

## 12. MISCELLANEOUS.

Chas. T. Blackman, Esq., of Montreal, the gift of a Telescope and Astronomical Instruments called after his name.
J. J. Arnton bequest to McGill University (1895)
R. A. Ramsay, M.A.. B.C.L., to defray the expenses of re-erecting the tomb of the late Hon James McGill (1877)

## 13. UNIVERSITY PURTRAITS AND BUSTS.

Portrait of the Founder, presented by the late Thomas Blackwood, Esq.
Portrait of William Molson, Esq., presented to the University.
Bust of William Molson, Esq., by Marsball Wood, presented by Graduates of the Universi:y.
Portrait of Peter Redpath, Esq., painted by Sydney Hodges, presented by Citizens of Montreal.
Portrait of Rev. Dr. Leach, by Wyatt Eaton, presented by Friends and Graduates of the University.
Portrait of Sir William Dawson, by Wyatt Eaton, presented by Friends and Graduates of the University.
Portrait of Hon. James Ferrier, by Robert Harris, presented by Friends and Graduates of the University.
Portrait of Dr. William Robertson, founder of the Medical Faculty, presented in loving remembrance by his family and descendants.
Bust of Peter Redpath, Esq., by Reynolds Stephens, presented by Mr. Redpath's personal friends in England.
Portiait of Peter Redpath, Esq., by Robert Harris, presented by Friends and Undergraduates of the University.

## II ENDOWMENTS AND SUBSCRIPTIONS FOR THE FACULTY OF ARTS.

1. BUILDINGS, CHAIRS, ETC.

Endowment Fund, 1856.
John Gordon McKenzie, Esq., Ira Gould, Esq.

Tolal, \$4,3:0

## 334

The Chafles Gibb Botanical Endowment, received by subscriptions.
A Friend,- $\quad \$ 8,000$.
Mrs. Catherine Hill, $-\$ 200$. Total $\$ 8,200$
The William C. McDonald Physics Building and Equipment, in the Faculties of Arts and Applied Scieace. The gift of William C. McDonald, Esq., announced br him as a gift to the University in 1890, and formally opened February, 1893.
The W. C. McDonald Physics Bulding Maintenance Fund in the Faculties of Arts and Applied Science, endowed by W. C. McDonald, Esq.,- $\$ 150,000$.

## 2. ENDOWMENT FOR PENSION FUND.

This endowment was given in 1894 to be invested and the revenue used exclusively for providing Pensions or Retiring Allowances for members of the teaching sta for the Faculties of Arts and Applied Science.

| Hon. Sir Donald A. Smith, | $\$ 50,000$ |
| :--- | ---: |
| John H. R. Molson, Esq., | 50,000 |
| William C. McDonald, Esq., | 50,000 |
|  |  |
|  | Total, |
|  | $\$ 150,000$ |

## 3. EXHIBFTIONS AND SCHOLARSHIPS, ETC.

The Jane Redpath Exhibition, in the Faculty of Arts,-fuunded in 1868 by Mrs. Redpath, of Terrace Bank, Montreal, and endowed with the sum of $\$ 1,667$.
The McDosald Scholarships and Exfibitions, 10 in number, in the Faculty of Arts-founded in 1871, and endowed in 1882 with the sum of $\$ 25,000$ by William C. McDonald, Esq.
The Charles alexander Scholarship, for Classics-founded in 1871 by Charles Alexander, Esq. Erdowed in 1893 with the sum of $\$ 2,000$.
The Barbara Scott Scholarship for Classical Language and Literaturefounded in 1884 by the last will of the late Miss Barbara Scott of Montreal, in the sum of $\$ 2000$.
The George Hague Exhibition-founded in 1881-Annual value $\$ 125$.
The Major Hiram Mills Mrdal and Scholarship-founded by the will of the late Major Hiram Mills of Montreal, and endowed with the sum of $\$ 1,500$.
T. M. Thompson, Esq.,- $\$ 250$ for two Exhibitions in September, 1871 ; $\$ 200$ for two Exhibitions in $1872,-\$ 450$.
Rev Colin C. Stoart--for the "Stuart Prize in Hebrew,"- $\$ 60$
The Taylor Scholarship-founded in 1871, by T. M. Taylor, Esq-Annual value $\$ 100$-terminated in 1878.
Professor Alexander Johnson-for Scholarship for 3 Sessions, terminated 1886-87,-\$350.
Hkr Majesty's Commission for the Exhibition of 1851-Nomination Scholarships for 1891, 1893, 1895 and 1897, value $£ 150$ annually, tenable for two years.
The Philip Calipenter Frllowship-founded by Mrs. Philip Carpenter, for the Maintenance of a Post-Graduation Teaching Fellowship or Scholarship in Natural Science or some branch thereof in the Faculty of Arts in McGill College, endowed in 1892 with the sum of $\$ 7,000$.
A Lady, to provide four free tuitions in the Faculty of Arts for sessions 1892-93 and 1893-94.
The Naw York Graduatrs Society Exhibition-a gift of $\$ 60$ in 1897, for an Exhibition in the Faculty of Arts, to be associated with the name of Sir William Dawson.

## 4. ENDOWMENTS AND DONATIONS OF MEDALS AND PRIZES

In 1856 Henry Chapman, Fsq. founded a gold medal, to be named the "Henry Cbapman Gold Medal," to be given annually in the graduating class in Arts. This medal was endowed by Mr. Chapman in 1874 with the sum of $\$ 700$.
In 1860 the sum of $£ 200$, presented to the College by H. R. H. the Prince of Wales, was applied to the foundation of a Gold Medal, to be called the "Prince of Wales Gold Medal," which is given in the graduating class for Honour Studies in Mental and Moral Philosophy.

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In 1864 the "Anne Molson Gold Medal" was founded and endowed by Mrs. John Molson of Belmont Hall, Montreal, tor an Honour Course in Mathematics and Physics.
In the same year the "Shakespeare Gold Medal," for an Honour Course, to comprise and include the works of Shakespeare and the Literature of England from his time to the time of Addison, both inclusive. and such other accessory subjects as the Corporation may from time to time appoint, was founded and endowed by citizens of Montreal, on occasion of the tpree hundredth anniversary of the birth of Snakespeare.
In the same year the "Logan Gold Medal," for an Honour Course in Geology and Natural Science, was tounded and endowed by Sir William Logan, LL.D., F.R.S., F.G.S., etc.

In 1874 a Gold and a silver Medal were given by His Excellency the Earl of Dufferin, Governor-General of Canada, for competition in the Faculty of Arts, and coatinued till 1878.
In 1875 the "Neil Stuart prize in Hebrew" was endowed by Neil Stuart, Esq., of Vankleek Hill, in the sum of $\$ 340$.
In 1880 a Gold and a Silver Medal were given by His Excellency the Marquis of Lorne; Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science; contiaued till 1883.
In 1884 a Gold and a Silver Medal were given by His Excellency the Marquis of Lansdowne, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of A pplied Science, continued till 1888.
In 1888 a Gold and a Silver Medal were given by His Excellency Lord Stanley, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science.
The "Charles G. Coster Memorial Prize" for general proticiency-given annually by Colin H. Livingstone, Esq., B.A.; founded in 1889.
In 1894 a Gold and a Silver Medal were given by His Excellency the Earl of Aberdeen, $G$ overnor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty ot Applied Science .

## 5. SUBSCRIPTIONS FOR THE SUPPORT OF THE CHAIR OF BOTANY, 1883-84.

| Principal Dawson. | \$500 | per annum, for |  |  | being...\$2500 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hon. Sir D. A. Smith | 250 |  | " |  | . |  |
| J. H. R. Molson, Esq ... | 100 | " | " | " | ...... | 500 |
| Mrs. J, H. R. Molson. | 100 | " | " | " | ...... | 500 |
| G. Hague, Esq. | 100 | " | " | " | ...... | 500 |
| Mrs. Redpath. | 100 | " | " | " | ...... | 500 |
| Hugh McKay, Esq. | 100 | " | " | " | ..... | 500 |
| Robert Moat, Esq. | 100 | " | " | " |  | 500 |
| W. C. McDonald, Esq . | 100 | " | " | " |  | 500 |
| Charles Gibb, Esq..... | 50 | " | " | " |  | 250 |
| Miss Orkney | 50 | " | " | " | ...... | 250 |
| Robert McKay, Esq | 50 | " | " | " | ...... | 250 |
| Mr. Molson............. | 50 | " | " | " | ...... | 250 |
| Mrs. John Molson | 50 | " | " | " |  | 250 |
| John Stirling, Esq .. | 50 | " | " | " |  | 250 |
| Warden King, Esq | 50 | " | " | " |  | 250 |
| Miss Hall .. | 50 | " | " | " |  | 250 |
| Rubert Angus, Esq | 50 | " | " | " |  | 250 |
| D. A. P. Watt, Esq | 50 | " | " | " |  | 250 |
| Hugb McLennan, Esq | 25 | " | " | " |  | 125 |
| Sir Joseph Hickson | 10 | . | , |  |  | 50 |
| Mrs. Phillips |  |  |  |  |  | 10 |

## 336

6. BOTANIC GARDEN, ETC.

Subscriptions, 1890-91.

8. SUBSCRIPTIONS TO PROVIDE SESSIONAL LECTURERS, ETC.


| W. C. McDonald, Esa., to provide for certain salaries in the Department of |
| :--- |
| Physics, etc., sessions $1894-95$ and $1895-96 \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ |
| 2627 |

## 9. ENDOWMENTS FOR APPARATUS.

The Local Committee of the British Association for the Advancement of Science, to found the British Association Apparatus Fund in the Faculties of Arts and Applied Science, in commemoration of the meeting of the Associationin Montreal in 1884 $. \$ 1,500$

## 10. SUBSCRIPTIONS, ETC., FOR APPARATUS



## 11. MISCELLANEOUS.

Hugh McLennan, Esq., subscription cowards expense of table at the Biological Station, Wood's Holl, Mass., for McGill Professor of Botany (1896) ..... $\$ 250$

## III. SPECIAL COURSE FOR WOMEN IN THE FACULTY OF ARTS.

## 1. THE DONALDA ENDOWMENT FOR THE HIGHER EDUCATION OF WOMEN.

This endowment, given by the Honorable Sir Donald A. Smith of Montreal, is to provide for the education of women in the subjects of the Faculty of Arts, up to the standard of the examination for B.A, in classes wholly separate, to constitute a separate Special Course or College for women, in 1884, $\$ 50,000$ and in $1886-\$ 70,000$

Total... $\$ 120,000$

## 2. FOR MUSICAL INSTRUCTION.

Hon. Sir Donald A. Smith, sessions 1889-90, \$200; 1890-91, \$200.
Total, $\$ 400$

## 3. FOR APPARATUS, ETC.

Sir Donald A. Smith, for appliances in Zoology in the special interest of Donalda Classes

## 4. ENDOWMENT HELD IN TRUST BY THE BOARD OF ROYAL INSTITUTION.

The "Hannah Willard Lyman Memorial Fund," contributed by subscriptions of former pupils of Miss Lyman, and invested as a permanent endowment to furnish annually a Scholarship or Prizes in a "Uollege for Women" affiliated to the University, or in classes for the Higher Education of Women, approved by the Unirersity. The amouat of the fund is at present $\$ 1,100$.

## IV. ENDOWMENTS AND SUBSCRIPTIONS FOR THE FACULTY OF APPLIED SCIENCE.

## 1. BUILDINGS, CHAIRS, ETC.

The Wililam Scott Chair of Civil Engingering, in 1884, en dowed by the last will of the late Miss Barbara Scott, of Montreal,- $\$ 30,000$.
The David J. Greenshields Chair of Chemistry and Mineralogy, in the Faculties of Arts and Applied Science, in 1883, endowed by the last will of the late David J. Greenshields, Esq., of Montreal, with the sum of $\$ 40,000$, half of which is devoted to the Faculty of Applied ucience.
The Thomas Workman Department of Mechanical Engineering-founded in 1891 under the last will of the late Thomas Workman, Esq, who bequeathed the sum of $\$ 117,000,-\$ 60,000$ for the maintenauce of Chair of Mechanical Engineering, with the assistance, shops, machinery and apparatus necessary thereto, $\$ 57,000$ to be expended in provision of necessary buildings, machinery and apparatus.
Whliam C. McDonald, Esq., in 1890, toward erection of Thomas Workman Workshops, \$20,c00.
The William C. McDonald Engineering Building, and Equipment of same-announced by the donor as a gift to the University in 1890, and formally opened February, 1893.
The William C. McDonald Physics Bulding, and equipment of same in the Faculties of Arts and Applied Science, the gift of William C. McDonald, Esq.; announced by him as a gift to the University in 1890, and formally opened February, 1893.
The William C. MoDonald Chairs of Physics, in the Faculties of Arts and Applied Science, endowed by William C. MeDonald, Esq., in 1890- $\$ 50,000$; in $1893, \$ 50,000$. Total $\$ 100,000$.
The William C. McDonald Chair on Elfctrical Engineering, endowed by Wm. C. McDonald, Esq., in 1891, with the sum of $\$ 40,000$.

The MoDonald Enginerring Building Maintenance Fund, endowed by W. C. McDonald, Esq., in 1892 and 1896.- $\$ 85,000$.
The W. C. McDonald Physics Building Maintenance Fund in the Faculties of Arts and Applied Science, endowed by W. C. McDonald, Esq.- $\$ 150,100$.
The McDonald Chkmistry and Mining Building, and Equipment, given to the University by William O. McDonald, Esq., in 18 6.—\$240,000.
MoDonald Chemistry and Mining Buiding Maintenance Fuad, endowed by William U. MeDonald, Esq., in 1896.- $\$ 135,000$.
The William C. McDonald Chair of Mining and Metallurgy, endowed in 1896 by William C. McDonald, Esq., with the sum of $\$ 50,000$.
The William C. McDonalo Chair of architreture, endowed in 1896 by william C. McDonald, Esq., with the sum of $\$ 50,000$.

## 2. ENDOWMENT FOR PENSION FUND.

This endowment was given in 1894 to be invested and the revenue used exclusively for providing Pensions or Retiring Allowances for members of the teaching staff of the Faculties of Arts and Applied Science:


## 3. EXHIBITIONS AND SCHOLARSHIPS.

The Scott Exhibition-founded by the Caledonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, aud endewed in 1872 with the sum of $\$ 1,100$ subscribed by members of the Society and other cutizens of Montreal. The Exbibition is given annually in the Faculty of Applied Science-A nnual value $\$ 60$.

The Burlan Scholar
Her Majess) for 1891 years.
The Dr. T. : Dr. T.S given al

In 1880 a $\mathbf{G}$ of Lorn Faculty continue
In 1884 a Gc
Lansdov
Faculty continue
In 1885 the F class in bers of $t$ of the Montreal
In 1888 a $G$ Governo Arts, the
In 1894 a G Aberdee! Faculty
5. ENDOW.

End
Daniel Torra
Charles J. Br
R. J. Reekie,

Hon. James F num for 10
Peter Redpa annum for
John H, R. M/ annum for George H, I (\$400 per a
T. Jas. Claxt annum for Donald Ross, num for 5 ; Miss Mary I per annum

The Burland Scholarship, founded 1882 by J. H. Burland, B.A.Sc., $\$ 100$ for a Scholarship in Applied Science, for three years, being $\$ 300$.
Her Majesty's Commission for the Exhibition of 1851-Nomination Scholarships for 1891, 1893, 1895 and 1897, value $£ 150$ annually, each tenable for two years.
The Dr. T. Strrry Hunt Scholarship-tounded in 1894 by the will of the late Dr. T. Sterry Hunt, and endowed with the sum of $\$ 2,755$, the income to be given and paid annually to a student or students of Chemistry.

## 4. MEDALS AND PRIZES.

In 1880 a Gold and a Silver Medal were given by His Excellency the Marquis of Lorne, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science ; continued till 1883.
In 1884 a Gold and a Silver Medal were given by His Excellency the Marquis of Lansdowne, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science, continued till 1888.
In 1885 the British Association Gold Medal, for competition in the Graduating class in the Faculty of Applied Science, was founded by subscription of members of the British Association for the Advancement of Science, and by gift of the Council of the Association, in commemoration of its meeting in Montreal in the year 1884.
In 1898 a Gold and Silver Medal were given by His Excellency Lord Stanley, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science.
In 1894 a Gold and Silver Medal were given by His Exsellency The Earl of Aberdeen, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science.
5. ENDOWMENTS AND SUBSCRIPTIONS FOR MAINTENANCE OF FAOULTY.

## Endowment Fund.

Graduates' Endowment Fund.
Daniel Torrance, Esq ........ ...... $\$ 5000$
Charles J. Brydges, Esq.............. 1000
R. J. Reekie, Esq. 100

Total. $\qquad$ .$\$ 6100$

> Graduates' Endowment Fund-
> Class $1890, \$ 70$ a year for 5 years, $\$ 350$; received to date... $\$$

## Annual Subscriptions, 1871-1879.

Hon. James Ferrier ( $\$ 100$ per annum for 10 years)...................
Peter Redpatb, Fsq. ( $\$ 400$ per annum for 10 years)............... 4000
John H. R. Molson, Esq. (\$400 per annum for 10 years)............... 4000
George H. Frothingham, Esq. (\$400 per annum for 7 years)... 2800
T. Jas. Claxton, Esq. ( $\$ 100$ per annum for 6 years)

600
Donald Ross, Esq. ( $\$ 50$ per annum for 5 years) .....................
Miss Mary Frothingham ( $\$ 400$ per annum for 3 years) ......... 1200

Forward ........... ...... $\$ 1 \overline{13,850}$

Forward
\$13,850
E. McLennan, Esq. ( $\$ 100$ per annum for 5 years) ..............
A. F. Gault, Esq. (\$100 per annum for 5 years)...................
Gilbert Scott, Esq. (\$100 for 2 years)500
years) ........................... 200
Joseph Hickson, Esq. ( $\$ 100$ for 2 years)

200
Principal Dawson ( $\$ 300$ for 2 years....................... ..........
His Excellency the Marquis of
Lorne................................ 600 500 100
Total............... $\$ 1 \mathbf{1 6 , 4 5 0}$ er citizens of of Applied

## Subscriptions towards Maintenan ce of Engineering Department.

W. C. McDonald, Esq, in 1891...................... ...... ..... ..................... \$10,000
do for advertising .................................................... 675
do to cover certain salaries, session 1894-95........................ 1 1,770
do to meet deficiency, session 1894-95................................. 10,000 -
do to meet deficiency, session 1895-96 .............................. 8,841
do to meet deficiency, session 1896-7
10,000
Total...... .......................... $\$ 51,286$

Subscriptions to provide lectures in Mechanical and Sanitary Engineering.
$\begin{array}{lll}\text { E. B. Greenshields, Esq............ } & \$ 50 \\ \text { J. E. Bovey, Esq.................... } & 50 \\ \text { Protessor H. T. Bovey..... ...... } & 61\end{array}$
Forward $\qquad$

Forward
$\$ 161$
Jeffrey H. Burland, R.A Sc., $\$ 100$
tor 2 years ........................... 200
Smaller amounts ....................... 40
Total $\qquad$ $\$ 40 \mathrm{i}$
Subscriptions for Maintenance of Chair of Practical Chemistry, 1862.
Hon. C. Dunkin, M.P........... ........... ........................... $\$ 1200$
Principal Dawson
1200
P. Redpath, Esq.

226
Total. $\qquad$ $\$ 2,626$
For Maintenance of Chair of Mining Engineering and Metallurgy, 1891.



Class Rooms for Faculty of Applied Science, 1888.
John H. R. Molson, Esq $\qquad$ $\$ 3000$

Total $\$ 3000$
W. C. McDonald, Esq
6. ENDOWMENTS FOR APPARATUS.

The Local Committee of the British Association for the Advancement of Science, to found the British Association Apparatus Fund in the Faculties of Arts and Apphed Science, in commemoration of the meeting of the Association in Montreal in 1884.
$\$ 1500$

## 7. SUBSCRIPTIONS, ETC., FOR APPARATUS.

, $10,0(10$
.... 1,770
...... 10,000
...... 8,841
..... 10,000
$\ldots . . \$ 51,286$

A lady, for the purchase of Mining Models................... ......
Thos. McDougall, Esq., for the same.
$\$ 1000$
J. Livesey, Esq., through Dr. Harrington, for the same .... Geo. Stephen, Esq., for the same Chas. Gibb, B.A., donation for Apparatus in Applied Science
The Local Committee for the reception (1881) of American Society of Civil Engineers

Forward $\$ 1175$

## Forward

```\(\$ 1175\)
```

for the purchase of appliances for the department of Civil Engineering in Faculty of Applied Science.
Capt. Adams, Chemical Apparrtus.
J. H. Burland, B.A.Sc., Chemical Apparatus.. 25
W. C. McDonald, Esq., for Surveying and Geodetic Apparatus in 1890.

1500

Total ...... $\$ 3,185$

## 8. LIST OF SUBSCRIBERS AND DONORS TO THE EQUIPMENT OF THE NEW ENGINEERING BUILDINGS OF McGILL UNIVERSITY, TO MAY, 1897.

Abbott, W $\qquad$ Equipment American Rail Joint Co. (Cleveland,
Ohio).........Specimens of Rail Joint American Steam Gauge Co., (Buston) Indicator.
Archbald, H......... ........ ....... Books
Ashton Valve Co. (Boston)
Sectional Valve
Bertram \& Sons, J. (Dundas).
24in. Planer
Birch \& Co. J. (England)......... Hydraulic Tu bes
Birks, Henry. $\qquad$ ...... Clock
Bishop, George ........ ....... Equipment
Blackwell, Kennet ...........Equipment
Blake .Mnfg. Co., The Geo. F.
Blue Prints of Pump
Blake Pump Co., The Geo. (New York \& Boston) ..Pump
Bovey, Prof H. T.......................Books
Bremner, A..................... ......... \$50
British Columbian Mills, Timber and Trading Company, Timber Beams of large Scantling for Testing Laboratory
Brockhaus, Herr F. A............... Books
Brodie \& Harvey ................. ..... $\$ 50$
Brush, G....... ................................Boiler
Oameron, Gerieral.. .......Rotary Dill
Campbell Tile Co. (England), per Jordan \& Locker. . .......Equipment
Campbell, Kpnneth.................. \$50
Canadian General Electric Co........... (Toronto), per F. Nichols. Equipment
Canadian General Electric Co
Electric Drill, Edison Generator Edison Street Railway Motor
Canadian Government
Collection of Canadian Timber

Canadian Pacific Railway Co.,......... Timber for Testing, Timber Beams of large Scantling for Testing Laboratory, Photographs
Canadian Rubber Co., Rubber Belting
Carsley, S............................... \$100
Carus-Wilson, Prof. C. A....Equipment Cary, A. A.......Photographs of Boilers Chadwick, F. $\qquad$ Truss Models
Chanteloup, E $\qquad$ T........... $\quad$ Trudels
$\$ 50$

Claxton, T.J...Timber Beams of large Scantling for Testing Laboratory Costigan, J...
Cowper, P. H.
Model of Steam Engine Crocker-W beeler Elect:ic Motor CO., Tbe (New York)...................Motor Orosby Steam Gauge and Vaive Co., (Boston).............Gauge and Valve, Indicator and Valves Darling, Brown \& Sharpe (Providence, R. I.) 6 in. Rule
Date, John.............................. Equipment
Dawson, W. B ........ Iron Rail showing
effect of long immersinn in water
Dominion Wire Manfg Co., per F.
Fairman... ........... ............SBaper
Drysdale, D ..................................Tools
Drysdale, W............................Tools
Earle, S. R .................. Air Injector
Edison General Electric Co., Two 450
light dynamos, Brake Shoe and Disc.
Egleston, Dr. (New York)......Framed
Photograph of the Moon, Books, Photos,etc.
Electric Welding Oompany, (Boston)
Equipment
Eureka Tempered Copper Co
Equipment.

Ewan, A $\$ 100$
Felton \& Gilleaume. Sampley of Cable Wire, etc. Forsyth, R .......................Equipment Frothing ham \& Workman.. ...... Tools Furlong, G. W., B.A.Sc ... ......Specimens of Pine and Wood bored by Teredos
Gardner \& Son, R. W...... 16 in. Lathe
Gardner, K. $\qquad$ Equipment
Garth \& Co .... $\$ 500$
Garth Henry...............................ipment
Government of New South Wales......
Collection of Australian Timbers
Government of Queensland, Australia,
Collection of Queensland Timbers
Gower, W. E
Graham H $\qquad$ $\$ 100$
Grier, G. A...................................
Gurnev \& Co., E. \& C .... ... .... \$604
Hadfield, Messrs. (Sheffield ${ }^{\prime}$.Equipment
Hamiltor Powder Co......... Electrical Blasting Machine, and appliances, etc., for blasting.
Hearn \& Harrison, per L. Harrison, Barometer \& Clock
Hersey, R..... ........................ \$1200
Hodgson, Jonathan .......... ...... \$200
Holden, A........................Equipment
Hughes \& Stephenson.........Equipment
Hhuion W H ........Equipment
Irwin \& Hopper.................Equipment
Ives, H. R............................... Cupola
Joyce, Alfred........................... $\$ 50$
Jordan \& Locker............... Equipment
Kennedy, John...................Equipment
Timber Beams of large Scantling for
Testing Laboratory
Kennedy, W. \& Sons..American Turbine
Kennedy, W. (0wen Sound)...Pump
Kerr, R. \& W
......... $\qquad$ Tools
King \& Son, Warden...... ......... \$534
Laughlin-Hough Drawing Table Co., Drawing Tables
Laurie \& Bro. J......Compound Engine
Lawson, A. J......... ......... Equipment
Lindsay \& Co., C. F..........Equipment
Lovell \& Son, John..... .............Books
Lyster, A. G................. Drawings and
Sketches of London and Liverpool Docks
Macpherson, A........... ....../......Tools
Mason, Dr........................Equipment
Maxwell \& Co., E. J........Equipment
McUarthy, D. \& J. (Sorel)......... $\$ 300$
McDonald, W. C ...........Experimental
Pump, Ewing's Hysteresis Testing
Apparatus, Piano, Centritugal Pump,
Experimental Boiler, Equipment
McDougall, Mrs. J.

McLachlin Bros. (Arnprior)
Timber for Testing
Mclaren, D .............. $\$ 100$
McLaughlin -Bros..... ...........Timber
Beams of large Scantling for Testing Laboratory
McNally \& Co., W
$\$ 100$
McPherson Sand Box Co. (Troy, N.Y.)
Model of Sand Box

## Miller Bros. \& Sons........ ..... Elevator

Mitchell, P.............. Equipment ( 8300 )
Mitchell \& Co., R...............Equipment
Naısmith, P. L., B.A.Sc............Speci-
mens of Cast-Iron showing effect of mine water
Nalder Bros. \& Co. (England)
Standard-Celi
National Electric Mfg. Co
o..............

100 volt. Transformer, Transforaers Nicholson, Peter. $\$ 100$
Norton Emery Wheel Co. (Worcester,
U. S)............ ...... .........Equipment Notman, Wm.. ...............Photographs Ogilvie, W...... ......... ............ \$500 Palmer, A........................Equipment
Parker, M. $\qquad$ Equipment
Paton, H .................................Equipment
Peckham Motor Truck and Wheel Co.
(Kingston, N.Y)
Model of Motor Truck
Pelton Water Wheel Co. (New York) Two Motors
Pennsylvania Railroad Co........Work-
ing Drawings of Locomotives (32) Phelps Engine Co., per A. R. Williams \& Uo............ 4 Horse Power Engine Pillow, J. A.......................... \$250 Pratt \& Whitney (Hartford, Conn)..... Epicycloidal Gear Model
Prowse, G. R...................Equipment
Queensland Government per Sir
Thomas Mcllwraith
Collection of Timbers
Radiator Co. (Toronto).......... $\$ 500$
Ramsay \& Son, A..... ..... ...... \$100
Rathbun, E. W....................... \$112
Reddaway \& Co., F.... Belt (value \$50) Redpath, F. R....................Equipment Redpath, Mrs......................... $\$ 100$ Reed, G. W........................... \$100 Reford, R.............................. . $\$ 1000$
 Reid, R. G............................. \$1000 Renouf, E. M ................................Books Rhode Island Locomotive Works........

Photos of Locomotives Rife's Hydraulic Engine Mtg. Co.
(Roanoke, Va., U. S. A)................
Hydraulic Ram
Robb \& Armstrong
......................
80 H. P. High Speed Engine

Robertson,
Rogers, Pro
Ross, James
Rodden, W.
Royal Elect
Rutherford,
Sadler, G.
Seeley, Johr
Schaeffer \& E
Scholes, F...
Scovill Mfg.
Sharp, Stev
Eng) ......
Shearer, Jaw
Sheppard, C
Siemens Bro
Smith, C. B.
Fran
Smith, R.
Spence, J. P
tions and
struction o
Locks

## 9. FACUL

Hugh Paton.
A. Joycé .....
R. Gardner ..
H. Garth.....

Hughes \& St
R. Mitchell..
V. ENDO

Hon. Sir Don

Establish
years by the I
Mrs. G. W. C
H. A. Allan, Hon. Sir D A Sir George St R. B. Angus,

Robertson, J Equipment
Rogers, Professor (Waterville, Maine)
Ross, James Equipment

Rodden, W $\qquad$ .... \$500

Royal Electric Co
Equipment
12 Arc Light Dynamos Rutherford, W ..... ............Equipment
Sadler, G. (Robin \& Sadler)......
Belting (\$400)
Seelev, John................. ....Insulators
Schaeffer \& Budenbery (Brooklyn,N.Y.)
Double Indicator
Scholes, F.............................. $\$ 100$
Scovill Mfg. Co ................. Equipment
Sharp, Stewart \& Co. (Manchester,
Eng) .. .......................... Equipment
Shearer, James. .............. ...... \$200
Sheppard, Chas..... ............... $\$ 200$
Siemens Bros. (London, Eng)
Cable Samples
Smith, C. B
.........
Framed Photos of Bridges (2)
Smith, R.. .......................Equipment
Spence, J. P., C. E...............Specitications and Drawings showing construction of Sault Ste. Marie Canal Locks

Smith, R. Guilford $\qquad$ Books
Steel Co. of Scotland, The.. Samples of Cable Wi.........
St. George, P. W. $\qquad$ Models
Stirling. Uo., The
Sectional Blue Prints of Boilers. Sturtevant Co., The B. F. (Boston)..... Blowers
Swan Lamp Mfg. Co. Blowers
Taylor, A. T............................. $\$ 300$
Tees \& Co ........... ...........Eqnipment Thomson-Houston Co. (Boston) Incandescent dynamos
Twyford \& Co......... ........ Equipment Vail, Stephen......Piece of first Telegraph Wire Used
Walker \& Co., James ......... .....Tools Wanklyn, F. L...................Equipment Ward, Hon. J. K....................... $\$ 50$
Warrington Wire Co.....Cable Samples
Whittier Machine Co. (Boston)
Electric Elevator
Wiley \& Sons, John (New York). Books
Yale \& Towne Mfg. Co. (Stamford,
Conn)
Equipment
Yates \& Thom
Blue Prints of Machinery

## 9. FACULTY OF APPLIED SCI HNOE LIBRARY ENDOWMENT, 1893.

Hugh Paton ..... \$ 25
A. Joycé ..... 25R. Gardner
H. Garth. ..... 50
Hughes \& Stephenson ..... 100 ..... 100
R. Mitchell ..... 100 ..... 100
Forward ..... $\$ 600$

Forward
$\$ 600$
W. Rodden ..... 25
M Parker.
M Parker. ..... 25 ..... 25
Rubin \& Sadler. ..... 50
J. Robertson, Esq ..... 50
Mrs. John Ac'Dougall (1895) ..... 20
Total ..... $\$ 770$
V. ENDOWMENTS AND SUBSCRIPTIONS IN AID OF THE FACULTY OF MEDICINE.

1. LEANCHOIL ENDOW MENT, 1884.

Hon. Sir Donald A. Smith, G.C.M.G
$\$ 50,600$

## 2. CAMPBELL MEMORIAL ENDOWMENT, 1884.

Established to commemorate the service rendered to the Faculty during 40 years by the late Dean, George W. Campuell, M.D., LL.D.
Mrs. G. W. Campbell.
. $\$ 2000$
B. A. Allan, Esq. 1510
Hon. Sir D A. Smith............... 1500
Sir George Stephen, Bart........... 1000
R. B. Angus, Esq...... .............. 1000
George A. Druminond, Esq ...... 1000
Forward............... $\$ 8,000$

| Forward............. \$13,000 |  | Forward........ $\mathbf{\$ 4 6 , 3 0 0}$ |  |
| :---: | :---: | :---: | :---: |
| A. F. Gault, E | 1000 | Benj. Dawson, | 200 |
| M. H. Gaul | 1000 | R. Wolff, Esq | 150 |
| G. W. Step | 100 | James Stuar |  |
| mes Bennin | 1000 | A. T. Pater |  |
| R. P. Howard, M.D | 1000 | H. W. Thornton, M.D. (New |  |
| G. B. \& J. H. Burlan | 1000 |  |  |
| Miss Elizabeth O. Benn | 1000 | C. B. Harvey, M. D. (Yale, B , C.) | 100 |
| J. C. Wilson, Esq | 1000 | D. Clmuess, M.D. (Nanaimo, B.C.) | 100 |
| Mrs. John Redpath | 1000 | W. Kinlock, Esq | 100 |
| Hon. John Hamilto | 1000 | Hua, Richardson | 100 |
| iss Orkn | 1000 | Mrs Cuthbert (N. Richmond, Q.) | 100 |
| ugh Mackay, | 1000 | J. M. Drake, M. D................... | 100 |
| Hector Markenzie, | 1000 | Hugh Patton, Esq | 100 |
| Thomas Workman, | 1000 | R. T. Godfre | 100 |
| Hugh McLennan, | 1000 | T. A. Rodger, M.D |  |
| O. S. Wo d, E | 1000 | W. A. Dyer, Es |  |
| Frank Buller, M.I) | 500 | George W. Wood, M.D. (Fari- |  |
| mes Burnett, Esq | 500 | bault, Minn.) ............. ...... | 100 |
| Andrew Robertson, | 500 | A. A. Browne, |  |
| Robert Mackay, E | 500 | George Wilkins, M. | 100 |
| din Hope, | 500 | R. L. Me sonnell, M. |  |
| Alex. Urquhart, Es | 500 | Jos. Workman, M.D. |  |
| R. A. Smith, Esq | 500 | Hon. Sir A |  |
| George Hague, E | ${ }^{500}$ | Henry Lunam, B.A, M.D. |  |
| K. Ward, Eso | 500 | (Campbellton, N.B.)...... ....... |  |
| arden King, Esq | 500 | R. J. B. Howard, M.D |  |
| John Stirling, Esq | 500 | T. J. Alloway, M.D |  |
| John Rankin, Esq | 500 | Louis T. Marceau, M.D. (Napier- |  |
| Messrs. Cantlie, Ew | 500 |  |  |
| Robert Reford. Eso | 500 | Griffith Evans, M.D. (Vet. Dept. |  |
| Messrs. J. \& W. Ogil | 500 |  |  |
| Randolph Hersey, issq | 500 | J. J. Farley, M.D. (Belleville) ... |  |
| John A. Pillow, Es | 500 | Henry R. Gray, Esq |  |
| S. Carsley, Esq | 500 | J. E Biouse, M.D. (Prescott) ... |  |
| D. C. MacCallum, M | 500 | R. N. Rinfret (Quebec) |  |
| Messrs.S. Greenshields,Su | 500 | Robt. Howard, M.D. (St. Johns). |  |
| Jonathan Hodgson, | 500 | Drs. J. \& D. J. McIntosh (Vank- |  |
| George Ross, M.D. | 500 | leek Hill) |  |
| T. G. Roddick, M.D | 00 | J. H. McBean, M.D |  |
| Wm. Gardner, M. | 500 | J. C. Rattray, M.D. (Cobden, 0.). |  |
| Messrs. Cochrane, Cassils \& Co. | 500 | E. H. Howard, M.D. (Lachine)... |  |
| Sir Joseph Hickson. | 500 | J. W. Oliver, M.D (Clifton, (0).. |  |
| Allan Gilmour, Esq | 500 | D. A. McDougall, M.D. (Ottawa, |  |
| R. W. Shepherd, Esq | \%00 | P |  |
| E. Fenwick, M.D | 300 | A. Poussette, M.D. (Sarnia, 0.)... |  |
| les Williams, Esu | 300 | A. Ruttan, M.D. (Napanee, O.)... |  |
| P. Girdwood, M. | 250 | James Gunn, M.D. (Durham, O.). |  |
| harles F. Smithers, | (1) | J. McDiarmid, M.D. (Hensall, O.) |  |
| John Kerry, Esq | 250 | W J. Derby, M1.D. (Rockland, 0.) |  |
| Baumgarten, Esq | 250 | J. Gillies, M.D. (Teeswater, O.). |  |
| W. Elmenborst, E | 250 | J. B. Benson, M.D. (Chatham, |  |
| W. F. Lewis, Esq. | 250 |  |  |
| George Armstrong | 250 | L. A. Fortier, M.D. (St. David, |  |
| J. M. Douglas, Ezq .............. | 250 |  |  |
| Messrs. H. Lyman, Sons \& Co... | 250 | J. A. McArthur, M.D. (Fort |  |
| J. Shepherd, M.D | 50 |  |  |
| uncan McEachran, Esq., F. R. C. V. S. | 200 | John Campbell, M.D. (Seafortb, O.)................................... |  |

Sir Donald A dowed in
Sir Donald A. endowed Mrs. Mary Do for the Fa 10 per cer John H. R. Mo to the Fac chase of
Walter Drak donation $f$
Dr. Robert Cr Mrs. John Jane F. Li

In 1865 the " a memoria Faculty of in Medicine whether $\mathrm{Pr}_{1}$
In 1878 the "S treal, in $m$ competition Faculty of aminations.
The David Mor Faculty of !

For the fittin
G. W. Campbell W. E. Scott, M.I Wm. Wright, M. Robert P. Howal Duncan C. MacC

Forws
The Professors al Summer Sessic of Medicine

For
Dr. Campbell
Dr. Howard
Dr. Craik
Dr. MacCallum. Dr. Drake
Dr. Godfrey.
Dr. McEachran, F
Forward.

## 345

## 3. ENDOWED CHAIRS, ETC.

Sir Donald A. Smith, Chair of Pathology in the Faculty of Medicines, endowed in 1893 by the Hon. Sir Donald A. Smith with the sum of..... $\$ 50,000$
Sir Donald A. Smith, Department of Hyriene in the Faculty of Medicine, endowed in 1893 by the Hon. Sir D. A. Smith with the sum of

50,000
Mrs. Mary Dow Brquest-Bequest by the will of the late Mrs. Mary Dow for the Faculty of Medicine, 1893, $\$ 10,000$, less Government Tax of 10 per cent.

9,000
John H. R. Molson Donation-Donation by J. H. R. Molson, Esq., in 1893 , to the Faculty of Medicine of McGill University, $\$ 25,000$ for the purchase of land, and $\$ 35,000$ for additional building and equipment ...

60,000
Walter Drake, Esq., for benefit of Chair of Physiology, an annual donation first given in 1891. Annual value

500
Dr. Robert Craik Fund-
Mrs. John McDovgall, toward formation of above (1893-94).. 1,000 Jane F. Learmont, bequest do do (1894),.... 3,000

## 4. MEDALS AND SCHOLARSHIPS.

In 1865 the "Holmes Gold Medal " was founded by the Faculty of Medicine as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine, to be given to the best student in the graduating class in Medicine, who should undergo a special examination in all the branches whether Primary or Final.
In 1878 the "Sutherland Gold Medal" was founded by Mrs. Sutherland of Montreal, in memory of her late husband, Prof. William Sutherland. M.D., for competition in the classes of Theoretical and Practical Chemistry in the Faculty of Medicine, together with creditable standing in the Primary Examinations.
The David Morrice Scholarship-in the subject of Institutes of Medicine, in the Faculty of Medicine-founded in 1881 -value $\$ 100$. (Terminated in 1883.)

## 5. LIBRARY, MUSEUM AND APPARATUS.

For the fittings of the Library and Museum of the Faculty of Medicine, 1872.
G. W. Campbell, A,M., M.D...... $\$ 1200$
W. E. Scott, M.D 200
Wm. Wright, M.D........................... 200
Robert P. Howard, M.D............ 200
Duncan C. MacCallum, M.D... .. 200
Forward
$\$ 2000$

Forward
. 2,000
Robert Craik, M.D...... .... ....... 200
Geo. E. Fenwick, M.D...... ...... 200
Joseph M. Drake, M.D.............. 200
George Ross, M.A., M.D 50

Total.
$\$ 2,650$

The Professors and Lecturers in the Summer Sessions of the Faculty of Medicine

Donation to Apparatus, Museum, $\left.\begin{array}{l}\text { Library, etc., of the Medical } \\ \text { Faculty, 1887, } \$ 1,182 ; 1888, \\ \$ 1,023 .\end{array}\right\} \$ 2,205$
For Physiological Laboratory of Faculty of Medicine, 1879.
Dr. Campbell ..... $\$ 100$
Dr. Howard ..... 100
Dr. Craik ..... 100
Dr. MacCallum ..... 100
Dr. Drake ..... 100
Dr. Godfrey ..... 100
Dr. McEachran, F.R.C.V.S.
Forward ..... \$ 700
50
Dr. Ross ..... 50
Dr. Buller ..... 50
Dr. Gardner ..... 50
Dr. Osler ..... 50
Forward ..... \$ 700
ortb, ..... 5


## 347

## Alphabetically arranged.

## THE

late Mrs. her father,
by Wm. C.
1s, Lecture
ed by John , late Mrs , and more
wing Reso-
iscribe to a fund to be uncil of the sion of said y and those
es' Society, nded in the pecial com-
moration of resolved to ment of the
B.A., B.O.L. 1897. They rest till pay-

| Abbott, H., B.C | 60 |
| :---: | :---: |
| Archibald. H., B.A.Sc..... ........ | 20 |
| Bethune, M. B., M.A., B.C.L...... | 50 |
| Carter, C. B., B.C.L ............. .. | 100 |
| Cruickshank, W. G., B.C.L. | 100 |
| Dawson, W. B., M.A., Ma.E...... | 50 |
| Dougall, J. R., M.A...... ... ...... | 250 |
| Gibb, C., B.A. | 100 |
| Hall, Rer. Wm., M.A.. .......... | 100 |
| Hall, J.S., jun., B.A., B.C.L...... | 100 |
| Harrington, B. J., B.A., Ph.D... | 50 |
| Hutchinson, M., B.C.L....... -... | 400 |
| Kirby, J., LL.D., D.C.L | 50 |
| Krans, Rev. E. H., M.A., LL.D... | 100 |
| Leet, S. P., B.C.L.................. | 100 |
| Lighthal, 'W.D., M.A., B.C.L... | 100 |

Forward ., ... ..... ......... $\$ 1,730$

Forward ................... \$1,730
Lyman, H. H., M.A................ 100
Lyman, A. C., M.A.. B.C.L...... .. 50
MeCormick, D., B.C.L.... .. ..... 100
McGibbon, R. D., B.A., B.C.L... 100
McGoun, A., jun., M.A., B.C.L. 50
McLennan, J. S., B.A......... . .... 100
Ramsay, R. A., M.A., B.C.L...... 50
Spencer, J. W., B.A.Sc., Ph.D... 50
Stephen, C. H., B.C.L....... ... ... 100
Stewart, D. A., B.A.Sc...... ...... 20
Stewart, J., M.D............ ..... ... 60
Tait, M. M., B.C.L..... ......... ... 100
Taylor, A. D., B.A., B.C.L..... .. 100
Trenholme, N. W., M.A., D.C.L.. 400


[^0]:    (The Governors, Principal and Fellows constitute, under the Charter, the Corporation of the University, which has the power, under the Statutes, to frame regulations touching the Course of Study, Matriculation, Graduation and other Educational matters, and to grant Degrees.)

[^1]:    * An asterisk is afflxed to the books which will be left to the student's private reading, with help and direction from the Professor.

[^2]:    * In groups of eight or ten, $\dagger$ In groups of four. $\ddagger$ Alternate weeks M.G.H. and R.V.H.

[^3]:    * It shall be understood that the programme and regulations regarding courses of study and examinations contained in this calc-ndar hold good for this calendar year only, and that the Faculty of Medicine, while fully sensible of its obligations towards the students, does not hold itself bouud to where absolutely for the whole four years of a student's course to the conditions now laid down.

[^4]:    * A course in $r$
    qualifying for the
    + Provided, hov
    as those above sta

[^5]:    * A course in medical, surgical and topographical anatomy will be given for students qualifying for the Ontario Medical College.
    $\dagger$ Provided, however, that Testimonials equivalent to, though not precisely the same as those above stated, may be presented and accepted.

[^6]:    * See foot note, page 180.

[^7]:    *.Owing to losses incurred by non-payment of fees, the Registrar must refuse registra-
    tion till the fees are naid, which may be returned if the applicant fails to matriculate.

[^8]:    * Students may either take Rotany or Zoology. but must intimate at the heginning of the Session their choice, and adbere to this, except I special permission of the Faculty. Students desiring to attend both subjects in one strsion $n$ ay do so ky permirsion of the Faculty.

[^9]:    * Undergra take the prac

[^10]:    * Undergraduates in the second and third sessions are particularly recommended to take the practical course in Bacteriology during the summer session, if possible.

[^11]:    * These regulations are under revision, and are likely to be much modified at the close of this session.

[^12]:    * These regulations are under revision, and will doubtless be greatly modified before the next session of the Normal School.

[^13]:    Te Candidates will be exempt ed from examination in this subject only if their parents or guardians make written objection thereto. In such case Taylor's First Principles of Modern History will be required.

[^14]:    * When two orn to pass in each. unless they show connected therew must be obtained

[^15]:    - When two or more books or subjects are prescribed for one ex mination it is necessary to pass in each Candidates will not be allowed to pass in the Preliminary Grammar, to pass in each. Canditas astary knowledge of Syntax (Parsing, Analysis, and questions connected therewith). In Classics, at least one-third of the marks allotted to grammar must be obtained.

[^16]:    * French as in Part I., Note 2.
    + Candidates from Academies under the control of the Protestant Committee of the Council of Public Instruction are exempt from the former fee, but not from the latter.

[^17]:    *To pass supplemental examination.

[^18]:    Alexander, A. O., Ridgetown, 0 Alexander, J. L., Bowmazville, 0
    (2) Anderson, Fred J.
    (2) Bartlett, Leonard
    (2) Bean, Benj.
    (2) Blythe, Jno. J.
    (2) Bushart, Wm. P.
    (2) Bradford, Wm. (G.

    Bradshaw, Jas. E, Valleyfield, Q
    (2) Cairns, Hugh G.

