#### ANNUAL CALENDAR

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# McGILL COLLEGE

OF

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AND

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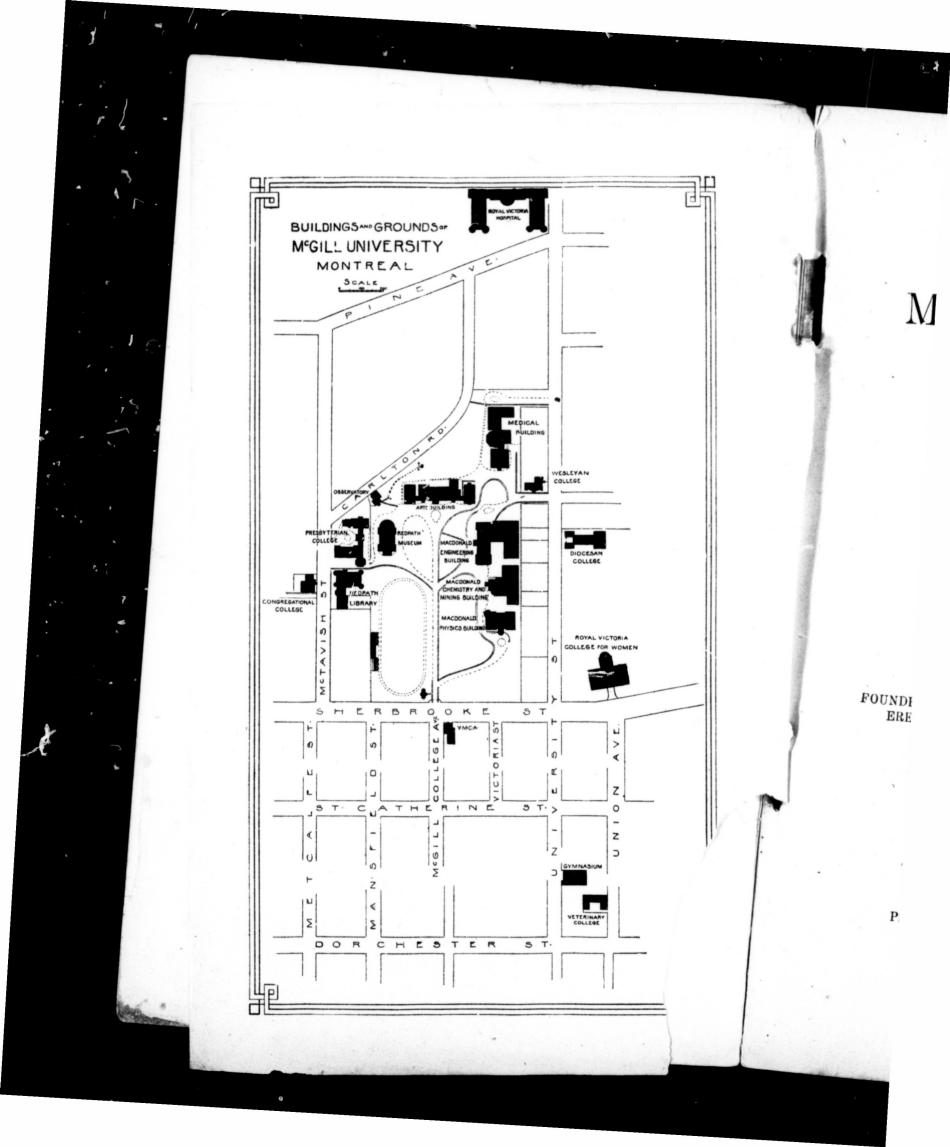
FOUNDED UNDER BEQUEST OF THE HON. JAMES McGILL, ERECTED INTO A UNIVERSITY BY ROYAL CHARTER IN 1821, AND RE-ORGANIZED BY AN AMENDED CHARTER IN 1852.

### SESSION 1899-1900

Montreal :

PRINTED FOR THE UNIVERSITY BY JOHN LOVELL & SON.

1899.



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The List of Graduates corrected to April, 1897, and the Examination Papers (price 75 cents) for each Session, are published separately, and may be obtained on application to the Secretary.

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sion 1899-1900.	15 Park Av.
G. GORDON CAMPBELL, B.Sc. (Dalhousie), M.D.	
Lecturer in Clinical Medicine.	117 Metcal fe Street.
A. E. GARROW, M.D.	
Lecturer in Surgery and Clinical Surgery.	2726 St Catherine St.
W. F. HAMILTON, M.D.	
Lecturer in Clinical Medicine.	287 Mountain Street.
R. TAIT McKENZIE., B.A., M.D.	
Medical Examiner and Instructor in Physical (	
Demonstrator of Anatomy.	59 Metcalfe Street.
JOHN P. STEPHEN.	
Instructor in Elocution.	875 Dorchester Street.
J. G. McCARTHY, M.D.	( D
Senior Demonstrator of Anatomy.	61 Drummond Street.
D. J. EVANS, M.D.	Death
Demonstralor of Obstetrics.	939 Dorchester Street.
J. A. HENDERSON, M.D.	
Demonstrator of Anatomy.	34 Park Av.
J. W. SCANE, M.D.	
Demonstrator of Physiology, KENNETH CAMERON, B.A., M.D.	4469 St Catherine Street.
Demonstrator of Clinical Surgery	D. I
	903 Dorchester Street.
C. G. L. WOLF, B.A. (Man), M.D.	
Demonstrator of Practical Chemistry. FRANK H. PITCHER, M.A. Sc.	McGill Medical College.
Demonstrator of Physics.	McGill College.
ALEXANDER BRODIE, M.A.Sc.	
Demonstrator of Practical Chemistry.	McGill College.
R. A. KERRY, M.D. Assistant Demonstrator of Pharmacu.	
Assistant Demonstrator of Fharmaci.	164 Peel Street

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J. J. ROSS, B.A., M D.
Demonstrator of Anatomy.
A. E. ORR, M.D.
Demonstrator of Anatomy.
A. G. NICHOLLS, M.A., M.D.
Demonstrator of Pathology.
H. B. YATES, B.A. (Cantab.), M.D.
Demonstrator of Bacteriology.
A. A. ROBERTSON, B.A., M.D.
Demonstrator of Physiology.
J. ALEX. HUTCHISON, M.D.
Demonstrator of Clinical Surgery.
J. D. CAMERON, M.D.
Demonstrator of Gynæcology.
R. O. KING, M.A.Sc.
Demonstrator in Physics.
O. E. LEROY, B.A.
Demonstrator in Geology.
N. M. YUILE, B.Sc.
Demonstrator in Mining.
S. F. KIRKPATRICK, B.Sc.
Dawson Fellow in Metallurgy.
JAMES W. FRASER, B.Sc.
Demonstrator in Physics.
R. K. McCLUNG, B.A.
Demonstrator in Physics.
E. J. SEMPLE, B.A. (St. Mary's College), M.D.
Demonstrator of Surgical Pathology.
H. M. CHURCH, M.D.
Demonstrator of Anatomy.
W. G. REILLY, M.D.
Demonstrator of Anatomy.
R. A. WESTLEY, M.D.
Demonstrator of Anatomy.
D. D. MCTAGGART, B.A.Sc., M.D.
Assistant Demonstrator of Pathology.
S. RIDLEY MACKENZIE, M.D.
Assistant Demonstrator of Medicine.
D. P. ANDERSON, B.A., M.D.
Assist int Demonstrator of Pathology.
T. P. SHAW, M.D.
Assistant Demonstrator of Obstetrics.
JAMES BARCLAY, M.D.
Assistant Demonstrator of Obstetrics.
J. A. WILLIAMS, M.D.
Assistant Demonstrator of Backeriology.
A. T. BAZIN, M.D.
Assistant Demonstrator of Anatomy.

#### LIBRARY.

ł	AS. H. GOULD, B.A.		
	University Librarian.		
ł	MOTT.		
	Assistant Librarian.		

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679 Wellington Street. 900 Dorchester Street. 267 Mountain Street. 257 Peel Street. 79 St. Matthew Street. 70 Mackay Street. 2068 St Catherine Street. McGill College. McGill College, McGill College. McGill College. McGill College. McGill College. 375 St Antoine Street, 354 Greene Av. 51 Park Av. 85 Union Av. 90 Park Av. 144 Peel Street. 493E St. Urbain Street. 1260 Dorchester Street. McGill Medical College . 385 St Antoine Street. 46 Richmond Square.

862 Sherbrooke Street.

17 St. Famille Street.

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## General Statement.

#### SESSION OF 1899-1900.

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The Sixty-seventh Session of the University, being the Forty-seventh under the amended Charter, will commence in the autumn of 1899.

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 greatest 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 courses of study extend over four Sessions of eight months each. In the third and fourth years extensive options and certain exemptions are allowed to professional students. The course of study leads to the Degrees of B.A., M.A., B.Sc., M.Sc., D.Sc., and D. Litt. 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.

The degree of B.A. or B.Sc. can be obtained along with the degree in the Faculty of Medicine or of Applied Science in six years, or of Law in five 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 proper 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 COURSE IN ARTS (Royal Victoria College) provides for the education of women, in separate classes, with course of study, exemptions, degrees and honours identical with 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, Practical Chemistry, and Architecture, leading to the Degrees of B Sc., M.Sc., and D.Sc.

THE FACULTY OF LAW.—The complete course of law extends over three Sessions of eight months each, and leads to the Degrees of B.C.L. and D.C.L.

THE FACULTY 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 Complete Calendar with information respecting all the Faculties, etc., may be obtained from W. Vaughan, Esq., Registrar of the University.

#### II. AFFILIATED COLLEGES.

Students of Affiliated Colleges are matriculated in the University, and may pursue their course of study in the Affiliated College, or in part in the Affiliated College and in part in McGill College, as the case may be, and may come up to the University Examinations on the same terms as the students of McGill College.

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MORRIN COLLEGE, QUEBEC.-Is affiliated in so far as regards Degrees in Arts and Law. [Detailed information may be obtained from the REV. DONALD MACRAE, D.D., Principal.]

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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., D.D., Principal.]

VANCOUVER COLLEGE, Vancouver, B. C.—Is affiliated in so far as regards the work of the First Year in Arts. [Detailed information may be obtained from A. ROBINSON, B.A., Principal.]

#### III. AFFILIATED THEOLOGICAL COLLEGES.

Affiliated Theological Colleges have the right of obtaining for their students the advantage, in whole or in part, of the course of study in Arts, with such facilities in regard to exemptions as may be agreed on.

THE CONGREGATIONAL COLLEGE OF CANADA, MONTREAL. Principal, Rev.

J. HENRY GEORGE, D.D., PH.D., 58 McTavish St. 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, Rev. Henry M. Hackett, M.A., B.D., 201 University St.

THE WESLEYAN 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 Arts for Academy Diplomas and for the Degree of B.A. Principal, S. P. ROBINS, LL.D., 32 Belmont St., Montreal, from whom copies of the School announcement may be obtained.

#### V. AFFILIATED HIGH SCHOOLS, ETC.

The Trafalgar Institute for the higher education of women, Simpson St., Montreal, Principal, Miss Grace Fairley. The High School of Montreal, and The Girls' High School of Montreal, Metcalfe St., Principal, Rev. Elson I. Rexford, B.A.

Schools which have prepared successful candidates for A.A. or for matriculation (June, 1899). High School, Montreal; Girls' H. S., Montreal; Abingdon School, Montreal;

Montreal Coll. Inst.; Miss Symmers' and Miss Smith's School, Montreal ; Westmount Acad ; Bishop's Coll. School, Lennoxville; Compton Ladies' Coll.; Cookshire Acad.; Danville Acad.; Dufferin Gram. School; Feller Inst.; Gault Inst., Valleyfield ; Granby Acad.; Guelph Coll. Inst.; Larrison Coll.; Huntingdon Acad.; Inverness Acad.; College of Regiopolis, Kingston; Knowlton Acad.; Lachute Acad.; Lennoxville Mod. School; Magog Mod. School ; Mansonville Mod. School ; Merchiston Castle School, Edin.; New Westminster H. S.; Ormstown Acad.; Ottawa Coll. Inst.; Paspebiac Mod. School; Pembroke H. S.; Boys' H. S., Quebec; Ren-frew H. S.; Ridley Coll., St. Catharines; Church School for Boys, Rothesay, N.B.; Rothesay School for Girls, St. John, N.B.; Sherbrooke Acad.; Stanstead Wesleyan Coll.; Sutton Acad.; St. Albans School, Berthier; St. Bonaventure Coll., St. John's, Nfld.; St. Louis Coll., New Westminster, B.C.; St. Francis Coll. School; High School, St. John, N.B.; St. John's H. S.; Upper Canada Coll.; Vancouver Coll., Vancouver, B.C.; Coll. School, Victoria, B.C.; Waterloo Acad.; Williamstown H. S.

1 Friday 2 Saturday

3 SUNDAY 4 Monday

Tuesday 5 Wednesday

Thursday

7 Thursday 8 Friday 9 Saturday

10 SUNDAY

11 Monday Tuesday 12

13 Wednesday 14 Thursday

15 Friday 16 Saturday

**17 SUNDAY** 18 Monday

19 Tuesday 20 Wednesday

21 Thursday

22 Friday 23 Saturday

24 SUNDAY

25 Monday 26 Tuesday

27 Wednesday 28 Thursday

29 Friday 30 Saturday

1 SUNDAY 2 Monday

- Tuesday Wednesday Thursday
- 5 Friday
- 7 Saturday 8 SUNDAY
- o Monday
- 10 Tuesday 11 Wednesday
- 12 Thursday 13 Friday
- 14 Saturday
- 15 SUNDAY
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- Tuesday Wednesday 17 18
- 19 Thursday 20 Friday
- 21 Saturday
- 22 SUNDAY 23 Monday
- Tuesday
- 24 Tuesday
  25 Wednesday
  26 Thursday
- 27 Friday 28 Saturday
- 29 SUNDAY
- 30 Monday 31 Tuesday

NOTE.-Meeting

	ACADEMICAL YEAR 1899-1900.
	SEPTEMBER, 1899.
1 Friday 2 Saturday	Normal School opens. Meeting of Medical Faculty.
3 SUNDAY	intering of anticipation of the second se
4 Monday	Meeting of Faculty of Applied Science.
5 Tuesday 6 Wednesday	Matriculation in Law. Introductory Lecture in Law,
7 Thursday	Lectures in Law begin.
8 Friday	
9 Saturday 10 SUNDAY	
11 Monday	
12 Tuesday	Register opens for students in Medicine. College Grounds Committee.
13 Wednesday 14 Thursday	Meeting of Faculty of Arts. Matriculation, Exhibition, Scholarship and Supplemental Examinations. Finance
	Committee.
15 Friday 16 Saturday	Examinations continued. Matriculation in Veterinary Science.
17 SUNDAY	
18 Monday	Examinations continued. Engineering Building Committee; Chemistry and
19 Tuesday	Mining Building Committee. Examinations continued. Introductory Lecture in Medicine.
20 Wednesday	Examinations continued. Introductory Lecture in Veterinary Science. Lectures
21 Thursday	in Applied Science begin. Lectures in Arts, Medicine and Veterinary Science begin. Summer Essays in Applied Science to be sent in.
22 Friday 23 Saturday	Meeting of Faculty of Arts. Meeting of Governors.
24 SUNDAY	
25 Monday 26 Tuesday	
27 Wednesday 28 Thursday	
29 Friday	
30 Saturday	
	OCTOBER, 1899.
1 SUNDAY	Martin Charles Charles Colores
2 Monday 3 Tuesday	Meeting of Faculty of Applied Science.
4 Wednesday	Normal School Committee.
5 Thursday 6 Friday	Founder's Birthday. Physics Building Committee. The William Molson Hall opened, 1862. Meeting of Faculty of Arts.
7 Saturday	Meeting of Medical Faculty. Supplemental Examinations, Applied Science.
8 SUNDAY	
9 Monday 10 Tuesday	Museum Committee : Library Committee. College Grounds Committee.
11 Wednesday	Regular Meeting of Corporation. Annual Report to Visitor.
12 Thursday 13 Friday	Finance Committee. University Athletic Sports.
14 Saturday	
15 SUNDAY	Environment Building Committee Chemistry of Million Building Committee
16 Monday 17 Tuesday	Engineering Building Committee : Chemistry and Mining Building Committee
18 Wednesday	
19 Thursday 20 Friday	Meeting of Faculty of Arts.
21 Saturday	Register closes for Students in Medicine.
22 SUNDAY	
23 Monday 24 Tuesday	
25 Wednesday	
26 Thursday 27 Friday	
28 Saturday	Meeting of Gover ors.
29 SUNDAY	
o Monday	New Library around 1902
31 Tuesday	New Library opened, 1893

vi	NOVEMBER, 1899.	
1 Wednesday 2 Thursday 3 Friday 4 Saturday	Meeting of Faculty of Arts. Meeting of Medical Faculty.	1 Monday 2 Tuesday 3 Wednesda 4 Thursday 5 Friday 6 Saturday
5 SUNDAY 6 Monday 7 Tuesday	Meeting of Faculty of Applied Science.	7 SUNDAY 8 Monday
8 Wednesday 9 Thursday 10 Friday 11 Saturday	Finance Committee.	9 Tuesday 10 Wednesda 11 Thursday 12 Friday
12 SUNDAY		13 Saturday
13 Monday 14 Tuesday 15 Wednesday 16 Thursday 17 Friday 18 Saturday	College Grounds Committee. Meeting of Faculty of Arts.	14 SUNDA 15 Monday 16 Tuesday 17 Wedneso 18 Thursda 19 Friday
19 SUNDAY		20 Saturday
20 Monday 21 Tuesday 22 Wednesday 23 Thursday 24 Friday 25 Saturday	Engineering Building Committee : Chemistry and Mining Building Committee . Meeting of Governors,	21 SUND 22 Monday 23 Tuesday 24 Wednes 25 Thursda 26 Friday 27 Saturda
26 SUNDAY		28 SUND
27 Monday 28 Tuesday 29 Wednesday 30 Thursday		29 Monday 30 Tuesday 31 Wednes
	DECEMBER, 1899.	
1 Friday 2 Saturday	Meeting of Faculty of Arts. Meeting of Medical Faculty.	1 Thurso 2 Friday 3 Saturd
3 SUNDAY	Martin of Provide of April 2 Column	4 SUNI
4 Monday 5 Tuesday 6 Wednesday 7 Thursday 8 Friday 9 Saturday	Meeting of Faculty of Applied Science. Physics Building Committee.	5 Monda 6 Tuesda 7 Wedne 8 Thurs 9 Friday 10 Satur
10 SUNDAY		
11 Monday 12 Tuesday 13 Wednesday 14 Thursday 15 Friday 16 Saturday	Sessional Examinations in Medicine begin. Museum Committee : Library Com- mittee. College Grounds Committee. Regular Meeting of Corporation. Last day of Lectures in Arts. Finance Committee. Christmas Examinations in Arts begin.	11 SUN 12 Mond 13 Tuesc 14 Wedr 15 Thur 16 Frida 17 Satur
17 SUNDAY 18 Monday	Engineering Building Committee : Chemistry and Mining Building Committee.	18 SUI
10 Tuesday 20 Wednesday 21 Thursday 22 Friday 23 Saturday	Autumn term of Faculty of Medicine ends. Christmas Vacation begins. Meeting of Governors,	19 Mond 20 Tues 21 Wed 22 Thu 23 Frid
24 SUNDAY		24 Satu
25 Monday 26 Tuesday 27 Wednesday 28 Thursday 29 Friday 30 Saturday	Christmas-Day,	25 SU 26 Moi 27 Tue 28 We
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		1 Monday 2 Tuesday
faculty of Arts.	Lectures in Arts and Applied Science resumed. Meeting of Fa	3 Wednesday 4 Thursday 5 Friday
	Meeting of Medical Faculty.	6 Saturday 7 SUNDAY
umed. Meeting of	Winter term Faculty of Medicine begins, Lectures in Law resu Faculty of Applied Science, College Grounds Committee,	8 Monday 9 Tuesday
	Normal School Committee. Finance Committee. Meeting of Faculty of Arts.	o Wednesday 1 Thursday 2 Friday
		13 Saturday
ding Committee.	Engineering Building Committee : Chemistry and Mining Build	15 Monday 16 Tuesday 17 Wednesday 18 Thursday 19 Friday
		20 Saturday
		21 SUNDAY 22 Monday 23 Tuesday 24 Wednesday
	Meeting of Faculty of Arts. Meeting of Governors.	25 Thursday 26 Friday 27 Saturday
		28 SUNDAY 29 Monday
	Theses for M.A. and LL.D. to be sent in.	30 Tuesday 31 Wednesday
	FEBRUARY, 1900.	
	Meeting of Medical Faculty.	1 Thursday 2 Friday 3 Saturday
		4 SUNDAY
	Meeting of Faculty of Applied Science.	5 Monday 6 Tuesday 7 Wednesda <b>y</b>
	Finance Committee : Physics Building Committee. Meeting of Faculty of Arts.	7 Wednesday 8 Thursday 9 Friday 10 Saturday
	Museum Committee : Library Committee.	11 SUNDAY 12 Monday
	College Grounds Committee. Regular Meeting of Corporation	13 Tuesday 14 Wednesday 15 Thursday 16 Friday 17 Saturday
		18 SUNDAY
ulding Committee.	Engineering Building Committee : Chemistry and Mining Bu	19 Monday 20 Tuesday 21 Wednesday
ened Feb. 25th, 189	Meeting of Faculty of Arts. Meeting of Governors. Physics and Engineering Buildings ope	22 Thursday 23 Friday 24 Saturday
		25 SUNDAY 26 Monday
	No Lectures.	26 Monday 27 Tuesday 28 Wednesday

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kviii	<b>MARCH, 1900</b> .	
1 Thursday 2 Friday		1 Tuesday
3 Saturday	Meeting of Medical Faculty.	2 Wednesday 3 Thursday
4 SUNDAY		4 Friday
5 Monday	Meeting of Faculty of Applied Science.	5 Saturday
6 Tuesday 7 Wednesday		6 SUNDAY
8 Thursday	Finance Committee.	7 Monday 8 Tuesday
9 Friday 10 Saturday	Meeting of Faculty of Arts.	o Wednesday
11 SUNDAY		10 Thursday 11 Friday
12 Monday		12 Saturday
13 Tuesday	College Grounds Committee.	13 SUNDAY
14 Wednesday 15 Thursday		14 Monday
16 Friday		15 Tuesday 16 Wednesday
17 Saturday		17 Thursday
18 SUNDAY	Restante Bulling Constitutes Charles and the Bulling Constitution	18 Friday 19 Saturday
19 Monday 20 Tuesday	Engineering Building Committee : Chemistry and Mining Building Committee.	
21 Wednesday		20 SUNDAY 21 Monday
22 Thursday 23 Friday	Meeting of Faculty of Arts. Reports of Attendance on Lectures. Winter term	22"Tuesday
	ends Faculty of Medicine.	23 Wednesday 24 Thursday
24 Saturday	Meeting of Governors.	25 Friday
25 SUNDAY		26 Saturday
26 Monday 27 Tuesday		27 SUNDAY
28 Wednesday		28 Monday 29 Tuesday
29 Thursday 30 Friday	Last day of Lectures in Arts and Applied Science. Convocation for Degrees in	30 Wednesda
	Veterinary Science.	31 Thursday
	Veterinary Science.	31 Thursday
	Veterinary Science. APRIL, 1900.	31 Thursday
		1 Friday
1 SUNDAY 2 Monday		1 Friday 2 Saturday
1 <b>SUNDAY</b> 2 Monday 3 Tuesday	APRIL, 1900. Examinations in Arts. Meeting of Faculty of Applied Science.	1 Friday
1 SUNDAY 2 Monday 3 Tuesday 4 Wednesday 5 Thursday	APRIL, 1900.	1 Friday 2 Saturday 3 <b>SUNDA</b> 4 Monday
1 SUNDAY 2 Monday 3 Tuesday 4 Wednesday 5 Thursday 6 Friday	APRIL, 1900. Examinations in Arts. Meeting of Faculty of Applied Science. Normal School Committee. Physics Building Committee.	1 Friday 2 Saturday 3 SUNDA
1 SUNDAY 2 Monday 3 Tuesday 4 Wednesday 5 Thursday 6 Friday 7 Saturday	APRIL, 1900. Examinations in Arts. Meeting of Faculty of Applied Science, Normal School Committee.	I Friday 2 Saturday 3 <b>SUNDA</b> 4 Monday 5 Tuesday 6 Wednesd
1 SUNDAY 2 Monday 3 Tuesday 4 Wednesday 5 Thursday 6 Friday	APRIL, 1900. Examinations in Arts. Meeting of Faculty of Applied Science. Normal School Committee. Physics Building Committee. Meeting of Medical Faculty.	I Friday 2 Saturday 3 <b>SUNDA</b> 4 Monday 5 Tuesday 6 Wednesd
1 SUNDAY 2 Monday 3 Tuesday 4 Wednesday 5 Thursday 6 Friday 7 Saturday	APRIL, 1900. Examinations in Arts. Meeting of Faculty of Applied Science. Normal School Committee. Physics Building Committee. Meeting of Medical Faculty. Spring term begins Faculty of Medicine. Museum Committee : Library Com-	1 Friday 2 Saturday 3 <b>SUNDA</b> 4 Monday 5 Tuesday 6 Wednesd 7 Thursday 8 Friday 9 Saturday
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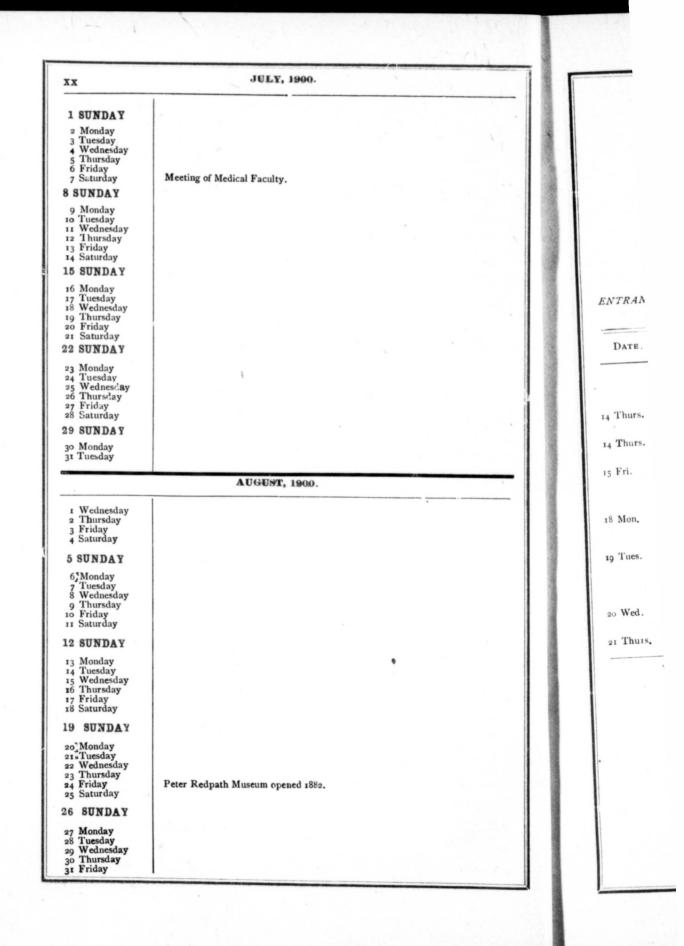
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	MAY, 1900. xi
1 Tuesday	Post Graduate Course in Medicine begins. Meeting of Examiners for School Examinations.
2 Wednesday 3 Thursday	
4 Friday 5 Saturday	Meeting of Medical Faculty.
6 SUNDAY	Marine (Parker (A. P.) Colored
7 Monday 8 Tuesday 9 Wednesday	Meeting of Faculty of Applied Science. College Grounds Committee.
10 Thursday 11 Fridav 12 Saturday	Finance Committee.
13 SUNDAY 14 Monday	
15 Tuesday 16 Wednesday	
17 Thursday 18 Friday	
19 Saturday 20 SUNDAY	
21 Monday	Engineering Building Committee : Chemistry and Mining Building Committee.
22"Tuesday 23 Wednesday 24 Thursday	Queen's Birthday.
25 Friday 26 Saturday	Lectures end Faculty of Medicine. Meeting of Governors.
27 SUNDAY	
28 Monday 29 Tuesday	Examinations begin Faculty of Medicine.
30 Wednesday 31 Thursday	Normal School closes.
	JUNE, 1900.
1 Friday	
2 Saturday	Meeting of Medical Faculty.
3 SUNDAY	Whit Sunday.
4 Monday 5 Tuesday 6 Wednesday	Normal School Committee.
7 Thursday 8 Friday	Physics Building Committee.
9 Saturday	
10 SUNDAY	Trinity Sunday.
11 Monday 12 Tuesday	Examinations begin for Matriculation and Associate in Arts. Museum Con mittee: Library Committee. College Grounds Committee. Regular Meeting of Corporation.
13 Wednesday 14 Thursday	Regular Meeting of Corporation. Finance Committee. Spring Term ends Faculty of Medicine. Convocation for degrees in Medicine.
15 Friday 16 Saturday	Spring Term ends Faculty of Medicine. Convocation for degrees in Medicine.
17 SUNDAY	
18 Monday 19 Tuesday 20 Wednesday	Engineering Building Committee : Chemistry and Mining Building Committee.
21 Thursday 22 Friday 23 Saturday	Masting of Consuman
23 Saturday 24 SUNDAY	Meeting of Governors.
25 Monday	
26 Tuesday 27 Wednesday. 28 Thursday	

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#### FACULTY OF ARTS.

ENTRANCE, EXHIBITION, SCHOLARSHIP, AND SUPPLEMENTAL EXAMIN-ATIONS, SEPTEMBER, 1899.

DATE.	FIRST YEAR		SECOND YEAR.		THIRD YEAR.	
	A.M.	P.M.	A. M.	P.M.	A.M.	Р.М.
4 Thurs.	Latin.	Latin.	Latin.	Latin.	Latin.	Latin
4 Thurs.					Mathematics.	
5 Fri.	Geometry.	Algebra and Trigonometry.	Mathematics.	Mathematics	Mathematics. Chemistry.	Greek. Chemistry.
Mon.	English.	English.	English.	Logic.	English. Logic.	English. Chemistry
Tues.	French.	German.	French,		Mathematics. Botany French.	English Composition
Wed.	Physics, etc.		Mathematics.	English.	Mathematics.	German
Thuis.	Greek.	Greek.	Greek.		Greek.	

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ssi SES DATE. FACULTY OF ARTS. APRIL. 2 Mon. CHRISTMAS EXAMINATIONS, DECEMBER, 1899.\* 3 Tues. FOURTH YEAR. DAY. DATE FIRST YEAR. SECOND YEAR. THIRD YEAR. 4 Wed. 5 Thurs. Friday. Latin. Latin. Mechanics. 15 Astronomy. 6 Fri. M'matics, P.M. " " 15 German. German. 9 Mon. Greek. Monday. 18 Greek. Greek. Greek. 10 Tues. 6.6 18 Zoology, P.M. Latin, P.M. 11 Wed. Tuesday. Mathematics. Psychology. 12 Thurs. Latin. Moral Philosophy. 19 13 Fri. " French, P.M. French, P.M. Ment. Phil., P.M. Geology, P.M. 19 14 Sat. Wednesday. Physics. Chemistry. 20 Botany. 15 Sun. 16 Mon. 20 German, P.M. German, P.M. French. French. 17 Tues. " 6 Hebrew, P.M. 18 Wed. 20 19 Thurs. English. English. Thursday. 21 20 Fri. \* The Christmas Examinations are obligatory on all Students, and the standing gained herein may be taken into account by the Faculty at the close of the session. 21 Sat. 23 Mon. 24 Tues. 25 Wed. 30 Mon.

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#### FACULTY OF ARTS.

### SESSIONAL AND HONOUR EXAMINATIONS, APRIL, 1900.

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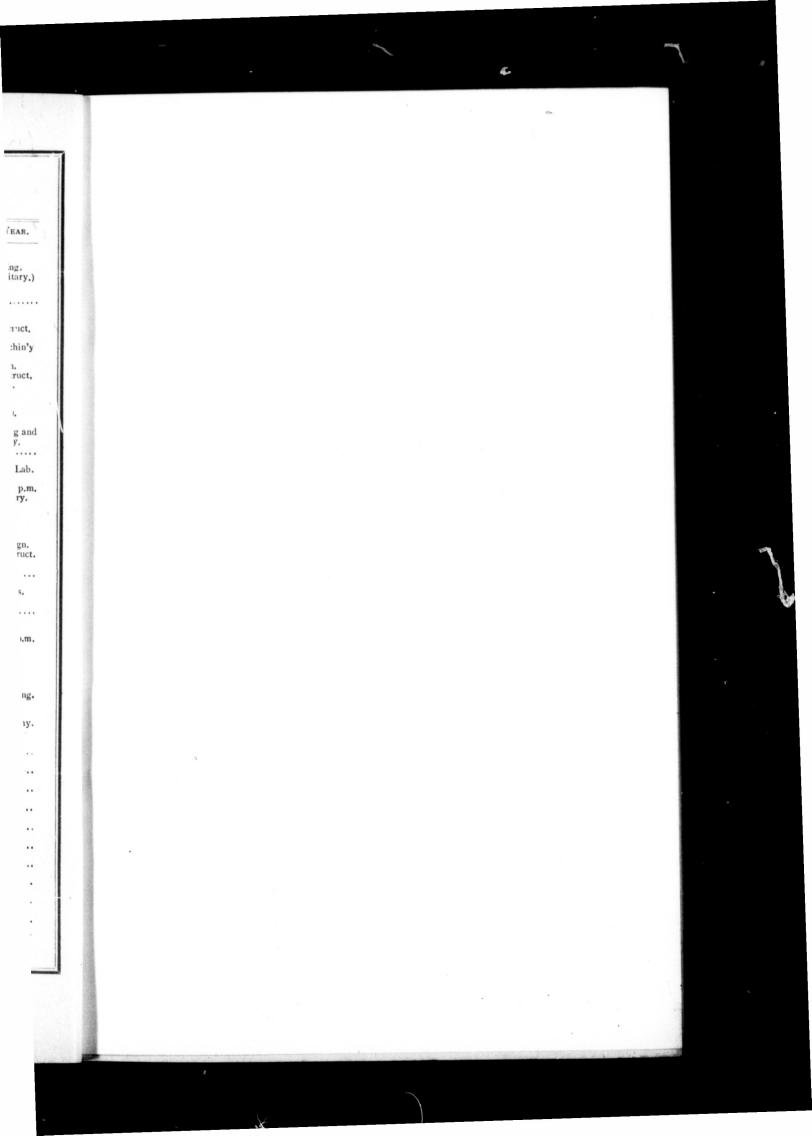
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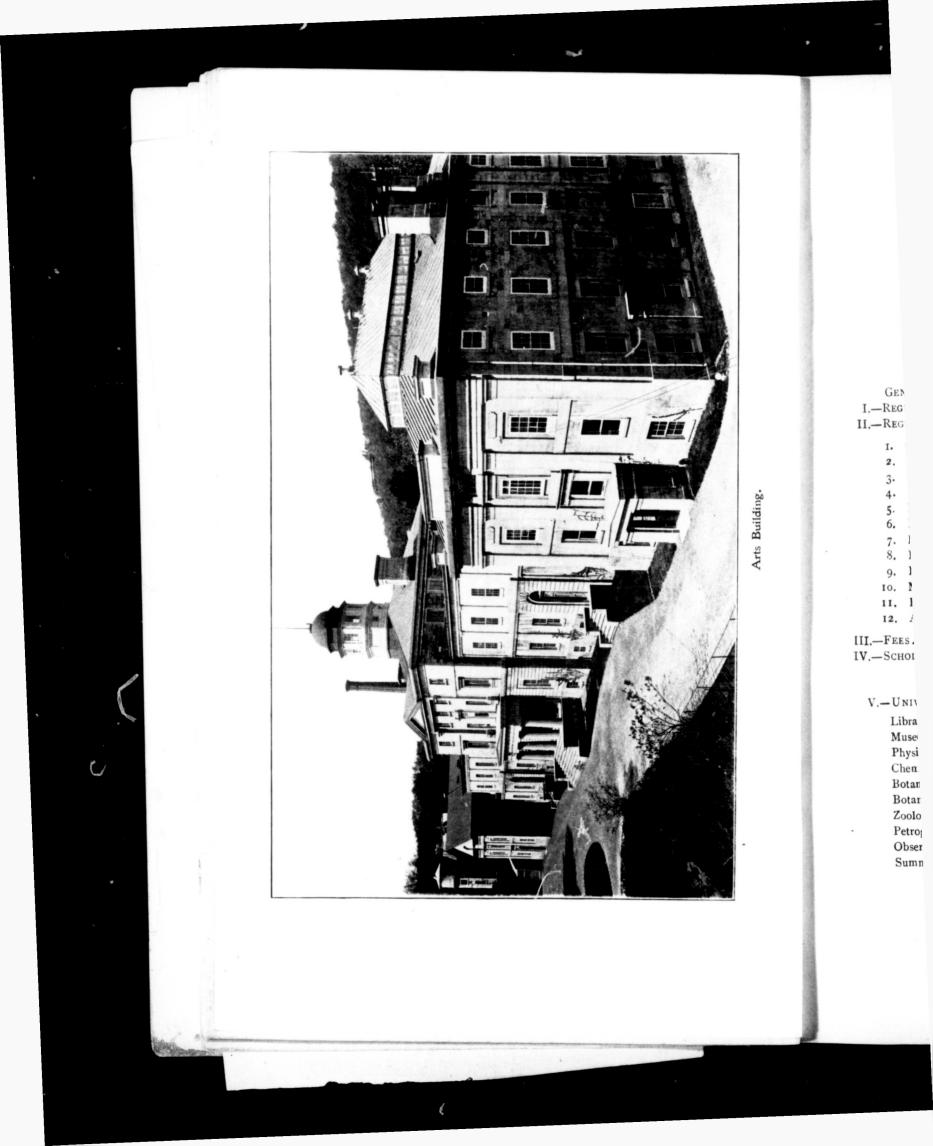
DATE. FIRST YEAR.		SECOND YEAR.	THIRD YEAR.	FOURTH YEAR.	
APRIL.	A.M. P.M.	<b>A</b> .M. P.M.	A.M. P.M.	A.M. P.M.	
2 Mon.	Hebrew	Hebrew	Hebrew	Hebrew and B.A. Honours.	
3 Tues.	G:eekGreek.	Greek Greek.	Mechanics	EthicsEthics	
4 Wed.	Latin Latin.	Latin Latin.	LatinLatin.	Latin Latin	
5 Thurs.	EnglishEnglish.	Mod. Hist	Ex. Phy- English. sics.	Ex. Phy- English. sics.	
6 Fri.			Botan <b>y</b>	Botany. English	
9 Mon.	Geometry and Arithmetic	Mathematics	Greek Greek.	B.A. Honours.	
to Tues.	Trigonometry and Algebra	Mathematics	Astronomy and Optics French.	B.A. Honours.	
u Wed.	French French.	French French		German GeologyGeology	
2 Thurs.	GermanGerman.	German. German.	Zoology	Greek Greek	
13 Fri.	Good Friday. Easter	Vacation begins.			
14 Sat.	••••				
15 Sun.	Easter Sunday.				
16 Mon.		•••••			
17 Tues.	Physics.	Logic	FrenchGerman.		
18 Wed.	Advanced Sections	Advanced Sections	Honour Exam'tions	B.A. Honours. B.A. Honours.	
19 Thurs.	Advanced Sections	Advanced Sections	Honour Exam'tions	B. A. Honours.	
20 Fri.	Advanced Sections	Advanced Sections	Honour Exam'tions	B. A. Honours.	
21 Sat.	Meeting of Examiner	ers and Faculty at	9.30 A.N.		
23 Mon.	Meeting of Examiner	s and Faculty at 9.30	A.M.		
24 Tues.	Declaration of result	s.			
25 Wed.	Meeting of Corporatio	n.			
30 Mon.	Convocation for Degr	ees in Arts.			

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xxiv FACULTY OF APPLIED SCIENCE. SESSIONAL EXAMINATIONS, APRIL, 1930.					
MARCH 31 Sat. April. 1 Sun.			{ Municip. Eng., (Sanitary.)	Municip, Eng. (Sanitary.) Geology.	
_	D 0				
2 Mon.	Desc. Geom., a.m.	Desc, Geom.	Theory of Structures	Theory of Struct.	
3 Tues. 4 Wed.	Mathematics.	Chemistry. Chemistry.	S Chemistry. Elect. Eng. Theory of Structures	Assaying. Dyn. of Machin'y Chemistry. Elect. Engin.	
5 Thurs.	English	Exp. Physics.	Exp. Physics.	(Theory of Struct. Elect. Engin. Geodesy.	
6 Fri.	Math. Lab.		Desc. Geom.	Mechl. Eng. Geology (Adv.).	
7 Sat. 8 Sun.	•••••	Surveying.		Ore Dressing and Metallurgy.	
o Mon.	Prost (Charry (c))	r		1 Mining.	
o Tues.	Pract. Chem. (1)	Kinematics.	Surveying.	Mechl. Eng. Lab. (Hydraulics.	
10 Tues. 11 Wed.	Mathematics. Desc. Mechanism.	Mathematics.	Machine Design. Org. Chemistry. Metallurgy,	a.m. and p.m Org. Chemistry.	
12 Thurs.	Pract. Chem. (2)	Elem. of Archt. a.m. and p.m. Hist. of Archt.	Hist. of Archt. a.m. and p.m.	Machine Design.	
		a.m. and p.m.	Dyn. of Mach. Geology.	Th. of Struct	
13 Fri.	Good Friday				
14 Sat.	Pract. Chem. (3)		Mining. Thermodynamics.	Thermodynamics.	
15 Sun.	Easter Sunday			••••	
16 Mon. 17 Tues.	Chemistry. Mathematics.	Mechl. Drawing.	Mechl. Drawing. Phys. Lab. Wk., (Elect. Eng.) Railway Engin.	Phys. Lab. Wk. p.m	
18 Wed.		Mathematics.	Mathematics.	Chemistry. Geology. Railway Eng. Art History. Mechl. Designing	
19 Thurs.			Mineralogy (Adv.).	( Muncip. Eng. ) Geology. ) Hydraulic Machy	
20 Fri.		•••••	•••••	Hist, of Archt.	
21 Sat.		••••	Mineralogy (Adv.).		
22 Sun.			·····		
23 Moa.					
24 Tues.			••••		
25 Wed.					
26 Thurs.					
27 Fri.					
28 Sat.					
29 Sun.					
30 Mon.	Convocation				
N.B.—The Examinations begin at 9.00 a.m. and 2.00 p.m. when not otherwise specified					

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#### FACULTY OF ARTS.

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The 14th, 1

The B The se a fortnig Exami Attend Exami and Apr Exhibi B.A., an tember, 1 to \$125. Examina Schola B.A., and tember, t Gold N of study. The fe boratory For fee Board per mon from \$12 Studen · the Regis [The M shall be etc., if he of the Ma

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## Faculty of Arts. Vart First.

The next session of this Faculty will begin on September 14th, 1899, and will extend to April 30th, 1900.

#### General Information.

The B. A. and B. Sc. Courses extend over four sessions.

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The session lasts from the middle of September to May 1st, with a fortnight's vacation at Christmas.

Examinations for Entrance are held in June and September.

Attendance on lectures is obligatory on all Students.

Examinations on the subjects of the course are held in December and April.

Exhibitions open to undergraduates, proceeding to the degree of B.A., and tenable for one year, are offered for competition in September, to the First and Second years. They vary in value from \$90 to \$125. The Exhibition examinations may be taken as Entrance Examinations.

Scholarships, open to undergraduates proceeding to the degree of B.A., and tenable for two years, are offered for competition, in September, to Students of the Third Year.

Gold Medals, Honours and Prize are awarded for advanced courses of study.

The fee for Undergraduates is \$60 per session, inclusive of all Laboratory fees.

For fees for Partial Students, see p. 35.

Board and Rooms can be obtained at a cost of from \$15 to \$25 per month; Rooms only, from \$4 to \$10 per month; Board only, from \$12 to \$18 per month.

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

[The McGill Y. M. C. A. will arrange that a stranger to the city shall be met at the railway station, and aided to secure lodgings, etc., if he send sufficient notice of time and station to the Secretary of the McGill Y. M. C. A. 844 Sherbrooke Street.] Directions.

#### Directions to Candidates for Matriculation or Admission.

Candidates are required:-

(a) To pass or to have passed the required examinations (pp. 6 seq.) Candidates claiming exemption, according to the regulations given below, 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. 35.)

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(b) To present themselves to the Dean at the beginning of the session, and fill up a form of application for matriculation or admission.

(c) To procure tickets from the Registrar, and to sign the declaration given on p. 13.

(d) To present their tickets to the Dean.

(e) To provide themselves with the Academic dress.

#### I. REGULATIONS FOR ENTRANCE.

Students in the Faculty of Arts are classified as Undergraduates or Partial Students. The latter take what classes they choose, subject to the approval of the Professors.

#### Undergraduates.

Undergraduates alone can proceed to the degree of B.A. or B.Sc. Candidates for admission to the First Year as Undergraduates are required, unless otherwise qualified, to pass the First Year Entrance Examination. Two examinations for entrance are held in each year, as follows:

(1) In June, concurrently with the examinations for the certificate of Associate in Arts.

Any Head Master or other person desiring a local examination must, before May 10th, submit to the Secretary of the Examining Board, 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 to Montreal.

The special fee for this local examination, viz., \$4.00 for each candidate, must be paid to the Deputy Examiner before the commencement of the examination. The Deputy Examiner will retain half of the fee as compensation for his services, and send the balance to the Secretary of the Examining Board. The University will not be responsible for local expenses. An additional fee of \$5.00 is charged to candidates who intend to register in the Faculty of Medicine; this fee must be forwarded to the Secretary with the application for examination.

(2) At the opening of the session, on September 14th, and following days, in McGill College only.

The following regulations with regard to the First Year Entrance Examination are in force:—

Except in special cases, no candidate will be admitted to the First Year Entrance Examination unless he is at least sixteen years of age, and produces a certificate to that effect, if deemed necessary.

Candidates can become Undergraduates of the First Year by passing (a) the June or September Entrance Examination of the First Year, or (b) the First Year Exhibition Examination, or (c) by presenting a certificate regarded by the Faculty as equivalent to either examination. (For regulations concerning candidates who pass the Entrance Examination in part, see below.)

These examinations are held only on the days in June and September appointed in the Calendar. Special arrangements can be made for the examination of candidates who are prevented from complying with the above regulation by severe illness or domestic affliction.

Candidates who, at the examinations for Associate in Arts, have passed in the subjects of the Entrance Examination 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 **Candidates** themselves again in the following September, will be exempted from examination in those subjects in which the Examiners may have reported them as specially qualified (*i. e.* marks not less than 50 per cent.).

Any candidate who fails in one and not more than one subject September at the September Entrance Examination, may pass an equivalent Candidates 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.

At the June examination, candidates from Ontario may present Ontario an equivalent amount from the books prescribed for the Junior Ma- and N. S. triculation Examination of the University of Toronto.

The Matriculation or Junior Leaving Examination accepted by the Universities of Ontario and the Leaving Examinations of Nova Scotia, are 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.

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Normal School Candidates

Medical Students.

professional certificates will be accepted *pro tanto* in the Examination. For qualifications required of Normal School Students, see Normal School Regulations.

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In the case of Candidates from Ontario, Second Class non-

Medical Students and Candidates for entrance into the first year of the Faculty of Medicine may present themselves for the First Year entrance examinations.

Note.—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 in p. 4.) They may, however, obtain certificates of passing, on payment of a fee of \$5.

#### First Year Entrance Examination.

Examinations for Entrance are held in June and September of each year. In 1899 they begin on June 12th in McGill College and local centres; on September 14th in McGill College only.

The subjects of the Entrance Examination for candidates taking the B.A. Course are:-

1. English (including History).

2 Mathematics.

- 3. Latin or Greek.
- 4. Greek or Latin (if not already taken).
  - or two Modern Languages.
  - or one Modern Language with the Additional Mathematics (p. 8).
- 5. Elementary Natural or Physical Science, viz.: one of the following: (a) Physiography; (b) Botany; (c) Chemistry; (d) Physics;

or (instead of this Elementary Science) A Language not previously taken.

Exhibitions are offered for competition (see page 9), to candidates who take a prescribed examination in Greek, Latin, Mathematics, English, and one Modern Language. This is regarded as an alternative Entrance Examination.

The subjects of the Entrance Examination for candidates taking the B.Sc. Course are:---

- 1. English.
- 2. Mathematics.
- **3**. One of the following:

Latin, Greek, French, German.

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(a) **Physiography**; (b) **Botany**; (c) **Chemistry**; (d) **Physics**; (c) a Language from (3) not previously taken; (/)Additional Mathematics.

Note.—Candidates who intend ultimately to proceed to the study of Medicine are reminded that for Medical Registration it will be necessary to take Latin.—Candidates for entrance into the Faculty of Applied Science must take "Additional Mathematics." Notice is hereby given that in and after May, 1901, an additional language will be required.

#### THE DETAILS OF THE EXAMINATION ARE AS FOLLOWS :

I. 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. Candidates are required to state the class to which any subordinate sentence belongs and to arrange and define the various members of all sentences set. Failure in Analysis and Parsing will cause the rejection of the paper. West's Elements of English Grammar is recommended as a text-book, and attention is particularly directed to pages 197-216. English History .- Candidates will be required to give the chief details of leading events. While any textbook written for the upper forms of schools may be used in preparation for the examination, GARDINER'S Outline of English History (Longmans) is recommended. Composition.-Candidates will write a short essay on a subject given at the time of the examination. Literature.-Scott's Lady of the Lake, ed. Stuart (Macmillan). SHAKSPERE'S Richard II., ed. Deighton (Macmillan), or WORDSWORTH (Arnold's Selections as specified in Junior Matriculation English [1899] of the University of Toronto).\*

Mathematics.—Geometry, Euclid's Elements, Books I., II., III., with easy deductions, or an equivalent. Arithmetic, Elementary rules, Vulgar and Decimal Fractions, Proportion, Percentage, Simple In-

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<sup>\*</sup> Michael, To the Daisy ("Bright flower, whose home," etc.). To my Sister, Expostulation and Reply, The Tables Turned, "O Nightingale. thou surely art." At the Grave of Burns, Thoughts suggested the Day Followiug, The Solitary Reaper, The Primrose of the Rock, Ode to Duty, Sonnets: "Fair Star of Evening, Splendour of the West." "It is not to be thought of that the Flood," "Scorn not the Sonnet." "I am not one who much or oft delight." "WingS have we, and as far as we can go," "Nor can I not believe." "It is a beauteous Evening, calm and free." "I thought of thee, my partner and my guide." "A trouble, not of clouds, or weeping rain." "A Poet !--he hath put his heart to school." Influence of natural objects. Nutting. Character of the Happy Warrior. Elegiac Stanzas suggested by a Picture of Peel Castle. To the Rev. Dr. Wordsworth.

terest, etc., Square Root, and a knowledge of the Metric System. Algebra, Elementary Rules, Fractions, Factors, Equations of the First Degree, Simultaneous Equations of the First Degree, Indices, Surds and Easy Quadratics, Problems leading to Equations, Binomial Theorem.

8

Additional Mathematics.—The additional requirements in the Mathematical subjects referred to above, are as follows:

Geometry:-Euclid's Elements, Bks. IV and VI, with Defs. of Bk. V.; and easy deductions; or an equivalent.

Algebra:—The three Progressions; Ratio, Proportion and Variation; Permutations and Combinations; Scales of Notation; Logarithms; Interest and Annuities.

Trigonometry:—Measurement of angles; Trigonometrical ratios or functions of an angle and an arc, with their relations; Trig. ratios of the sum or difference of two angles; Reduction of formulæ; as in Galbraith and Haughton, first four chapters, or as in Hamblin Smith, pp. I-IOO (omitting chap. XI) or other elementary text-books; with deductions.

Greek .- XENOPHON, Anabasis, Book I.; Greek Grammar.

Latin.—CÆSAR, Bell. Gall. Books I. and II.; and VIRGIL, Aeneid, Book I.; Latin Grammar.

In both Greek and Latin, **Translation at Sight and Prose Com**position 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.

**French**.—Grammar, including Syntax. Bertenshaw's French Grammar (Longmans) is recommended as containing the minimum amount of grammar required for this examination. 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.

German.—The whole of JOYNES' German Reader and BAUMBACH'S Schwiegersohn (Heath & Co.), (or texts approximately equal in amount) together with a thorough knowledge of German accidence. Candidates must also be able to translate into German with tolerable correctness exercises approximately equal in difficulty to those contained in the First Part of VANDERSMISSEN'S High School German Grammar or in the First and Second Parts of the JOYNES-MEISSNER German Grammar (Heath & Co.). Phys. Book c phy, or

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**Physiography.**—The elements of the Science—as in TARR's First Book of Physical Geography, or HINMAN's Eclectic Physical Geography, or other text-book covering the same ground.

Botany.—As in GROOM'S Elementary Botany, PENHALLOW'S Guide to the Collection of Plants and Blanks for Plant Description.

Credit will be given for plant collections.

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Note.—Teachers may substitute any plant of the same family for any one of those specified in part II. of GROOM's Elementary Botany, according to requirements of the locality.

**Ch** mistry.—Elementary Inorganic Chemistry, comprising the preparation and properties of the chief non-metallic elements and their more important compounds, the laws of chemical action, combining weights, etc. (The ground is simply and effectively covered by REMSEN'S "Elements of Chemistry," pp. I to 160.)

**Physics.**—Properties of Matter; Elementary Mechanics of Solids and Fluids, including the Laws of Motion, Simple Machines, Work, Energy; Fluid Pressure and Specific Gravity; Thermometry, the effects and modes of transmission of Heat. (See, for instance, GAGE'S Introduction to Physical Science, ch. I-V.)

NOTE.—Candidates may take Arithmetic, and all the English subjects except Literature, at the June Examination of one year, and the remainder at the Entrance examination of the following year.

# \*First Year Exhibitions

The First Year Exhibition Examination will be held at Mc-Gill College, Montreal; and also at any of the following centres, provided that application in writing be made to the Secretary of McGill University by intending candidates, not later than September 1st, viz:—

Toronto, Kingston, and Ottawa, Ont.; Halifax, N.S.; St. John, N.B.; Charlottetown, P.E.I.; Winnipeg, Man.; Victoria; and Vancouver, B.C.; St. John's, Nfld.

No application received after September 1st will be considered.

All the other Entrance, Exhibition, and Scholarship Examinations of September, 1899, (see pp. 6 and 37) will be held at cGill University only.

NOTE.—As the changes in the First Year Exhibition subjects for September, 1899, stated in the University Calendar for 1898-99 (p. 80), have escaped the notice of teachers, the Faculty has resolved to accept either the former list of subjects or the revised one, as below.

\*For detailed notice, see p. 39.

#### Subjects of Examination:-

FIRST YEAR.-Greek.-(a) Xenophon, Anabasis, II. orI. or Hellenics, I.: (b) Homer, Odyssey, XIII. or VII., or Plato, Apology: (c) Euripides, Sidgwick's Scenes from Hecuba, or Ilia VI. or IV. or Plato, Crito.

FIRST YEAR.—Lat n.—(a) Caesar B. G., Bks. I., II. or V. and VI.; or Tacitus, Agricola; (b) Virgil, Aenetl, V. or VI. or I.; (c) Cicero, Catiline Orations, I., II. or III. and IV. or Pro Milone, or Horace, Odes I.

A paper on Greek and Latin Grammar. **Translation at Sight** from easy Greek and Latin authors. Easy Latin and Greek i rose **Composition.** 

## Candidates who do not offer the books prescribed above will have the option of an additional paper in Composition and Translation at Sight.

Text-Books.—Sonnenschein's or Rutherford's Greek Grammar or Burnet's Greek Rudiments or White's First Greek Book; Abbott's Arnold's Greek Prose Composition; Sonnenschein's Latin Grammar, or Allen and Greenough's; Arnold's Latin Prose Composition by Bradley, or Collar's Latin Composition, Pts. III. and IV.

**Mathematics.**—*Euclid*, Bks. I., II., III., IV. with easy deductions; *Algebra*, same as for Passing with the addition of the three Progressions; *Arithmetic*.

\*nglish.—Grammar.—An advanced knowledge of this subject will be required, and, in addition, some acquaintance with the historical development of English, as illustrated in common and important wordforms. The candidate is recommended to read MASON'S or WEST'S Elements of English Grammar and expected to supplement Mason or West by using MORRIS'S Historical Outlines of English Accidence (Macmillan), as a book of reference. English Literature.—The works to be read are those selected for the First Year Examination for Passing with the addition of MILTON'S L'Allegro and other short poems, ed. Bell (Macmillan), and the following Essays of Macaulay:—Ranke's History of the Popes; Frederick the Great; Dumont's Recollections of Mirabeau. Composition.—The candidate will be required to write an essay on some subject connected with the literature prescribed.

French.—Grammar, including Syntax.—Easy translation from French into English, and English into French. A. Dumas, La question d'Argent. About, L'homme á l'oreille cassée. Labiche, Moi. Oral examination. or, ins

Germ Meissnei Joynes' Co.); B & Co.). The F in the a But in among t be taken 1. Hig

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English

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### or, instead of French:

German.—Grammar (an amount equal to Vandersmissen, or Joynes-Meissner, Accidence and Syntax, including exercises in translation); Joynes' German Reader; Baumbach, Der Schwiegersohn (Heath & Co.); Benedix, Plautus und Terenz, and Die Sonntagsjäger (Heath & Co.).

The First Year Exhibitions will be awarded to the best candidates in the above subjects, provided there be absolute merit.

But in subsequently distributing the Exhibitions of higher value among the successful candidates, work in the following subjects will be taken into account also:—

# 1. Higher Composition, and Translation at Sight (Latin and Greek).

2. Euclid, Book VI. (omitting Props. 27, 28, 29), with Defs. of Book V. and easy deductions.

Algebra :- Ratio, Proportion and Variation; Permutations and Combinations; Scales of Notation; Logarithms; Interest and Annuities.

**Trigonometry**:—To the beginning of the solution of obliqueangled triangles, with deductions, as in Galbraith & Haughton or other elementary text-books.

3. English :-- An Examination on Henry Morley's First Sketch of English Literature, chaps. VII. and VIII.

NOTE.—The First Year Exhibition Examination will be regarded as an Entrance Examination.

#### Changes for September, 1900.

In the First Year Exhibition Examinations, September, 1900, the following will be substituted for the corresponding books given above.

Latin —Caesar, Bell Gall., V., VI. Virgil, Aeneid II. or V.; Cicero, in Cat. III., IV., or Horace, Odes III.

Greek — Xen., Anab. I. or II. Homer, Odyssey XV. Euripides, Hecuba (Sidgwick's "Scenes") or Homer, Iliad I. or VI.

English Literature. —Scott, Lady of the Lake, ed. Stuart (Macmillan). (a) Shakspere, Richard II., ed. Deighton (Macmillan). Milton, L'Allegro and other short poems, ed. Bell (Macmillan). or (b) The works specified for the Junior Matriculation Examination of the University of Toronto for 1900.

In addition to Scott and (a) or (b), the Essays of Macaulay mentioned in the English requirements for the First Year Exhibition, p. 10.

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# French — E. Pailleron, Le Monde où l'on s'ennui. P. Loti, Pages choisies (chez A. Colin, Paris). About, Le Roi des Montagnes. Oral examination.

German.-Add to texts already prescribed:-AUER BACH's Brigitta.

# Second Year.

Admission to the Second Year is open, as a rule, only to Und rgracuates who have passed the First Year Sessional Examination in regular course.

But candidates of exceptional ability may, in certain cases to be dealt with by a Standing Committee appointed for the purpose, be admitted directly to the Second Year, with a naving passed through the curriculum of the First Year.

Partial students of the First Year should understand that passing the Sessional Examinations of the First Year is not, *ipso facto*, a qualification for Undergraduate Standing of the Second Year.

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.

#### Students of other Universities.

Students of other Universities.—Any student of another University desirous to be admitted to this University with equivalent standing is requested to send with his application:—

1st.—A Calendar of the University in which he has studied giving a full statement of the courses of study.

2nd.—A complete statement of the course he has followed. 3rd.—A certificate of the standing gained, and of conduct. These will be submitted to the Faculty.

The Faculty, if otherwise satisfied, will decide what examination, if any, or what conditions, may be necessary before admitting the candidate.

# Partial Students.

Candidates for admission as Partial Students may attend any class, without previous examination, provided they give the Professor satisfactory evidence of their ability to proceed with the work of the course. No c at least effect ii

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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.

# 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, will be sent, at the beginning of each session as soon as the classes are fully formed, to the Registrar's office, where they will 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."

## 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. or B.Sc., 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 fails 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. 56-88; for example, Greek, 2. refers to the second course given under the head of Classical Literature and History, p. 57.

#### First Year.

I. Greek, 1, or Latin, 1.

II. English, 1, (with History) 1.

III. Mathematics, 1.

IV. Latin, 1, or Greek, 1, or French, 1, or German, 1.V. Physics, 2.

Advanced Sections.

First

Year.

d With a view to the encouragement of higher work, advanced
 sections will be formed in all subjects as far as practicable, and in these Honours may be awarded. Permission to take an advanced section is granted by the professor.

Students taking the work of advanced sections may be excused from the work of the corresponding ordinary sections on the recommendation of the professor. No exemptions from other subjects will be granted to students in advanced sections.

Second Year.		Second Year.					
	VI. English, 2A, 2B.						
	VII.	Latin. 2, or Greek, 2.					
	Any three.	VIII. Greek, 2, or Latin, 2, or French, 2, or German, 2.					
		IX. Mathematics, including Dynamics, 3, or Elementary Biology and Dynamics.					
		X. Chemistry, I, Laboratory work in addition.					
		XI. Logic and Psychology, 1.					
		X11. Hebrew, 1.					
1		C it Alexand Carting will be formed in the Ca					

Advanced Advanced Sections.—Advanced Sections will be formed in the Sections. con 1 Year, as in the First.

# \* Third Year.

# XIII. Greek, 3, or Latin, 3.

XIV. Mathematical Physics, 3.

(In addition to the above, the student will take one subject from Div. (a), as below, a second from Div. (b), and a third from either. Subjects together with their laboratory courses, viz.:-Botany. Zoology, Chemistry, and Physics, shall in each case count as two courses.)

(Div. a) XV. Greek, 3. (If Latin, 3 has been taken.) XVI. Latin, 3. (If Greek, 3 has been taken.)

\* The subjects of the Third and Fourth Years stand as in the old curriculum. They will be changed in 1900 and 1901. X XX XX XX XX Physitomy, m

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XVII. English and Rhetoric, 3A, 3B. XVIII. Mental Philosophy, 2.

- XIX. French, 3. (If the subject has been taken in 1st. or 2nd. Year.)
- XX. German, 3. (If the subject has been taken in 1st. or 2nd. Year.)

XXI. Hebrew, 2.

#### (Liv. b.)

XXII. Optics, 4 (a), and Descriptive Astronomy, 4 (b). (Open to students who have taken XIV.)

XXIII. Experimental Physics 6. (Open to students who have taken XIV.)

XXIV. Laboratory Course in Physics, 8.

XXV. Botany, 1a.

XXV1. Zoology, 1.

Physiology and Histology, or Anatomy and Practical Anatomy, may, by Medical students only, be substituted for two courses of this Division.

# \* Fourth Year.

XXVII. Greek, 4.

**XXVIII.** Latin, (Optional-instead of **XXVII.**)

XXIX. Moral Philosophy, 3.

XXX. Mathematical Physics, 3. (Optional instead of XXVII.)

(In addition to the above, the student will take one subject from Div. (a), as below, a second from Div. (b), and a third from either. Subjects together with their laboratory courses, viz. :-Botany, Zoology, Chemistry, Physics, Geology and Mineralogy, shall in each case count as two courses.)

(**Div. a**.)

XXXI. Greek, 4. (If XXVIII has been taken.)

XXXII. Latin 4. (If XXVII has been taken.)

XXXIII. English Literature, 4.

XXXIV. French, 4. (If XIX has been taken.)

XXXV. German, 4. (If XX has been taken.

#### **Div**. (b.)

XXXVII. Astronomy, 5, and Optics, 4. (If XIV has been taken.)

XXXVIII. Exp rimental Physics, 7.

XXXIX. Laboratory Course in Physics, 9.

XL. Botany, 1b.

XLI. Zoology, 2.

XXXVI. Hebrew, 3.

#### XLII. Mineralogy and Geology, 1.

\* The subjects of the Third and Fourth Years stand as in the old curriculum. They will be changed in 1900 and 1901.

N.B.—Students claiming exemptions cannot count XXXVII and XXXVIII as subjects for the B.A. Examinations, unless they have taken XIV.

For details of each subject, see Courses of Lectures, p. 56 et seq.

A Candidate who seeks to obtain an Ordinary B.A. Degree of the First Class must fulfil the following conditions. He must not only obtain the required aggregate of marks (viz., three-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 huius Universitatis boni, et operam daturum ut eius decus et dignitatem promoveam."

#### Notes on the Ordinary Course for B.A.

Additional Courses. Third and Fourth Year Students are not restricted to the choice 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 Examination, viz. :—Intermediate or Third Year, according to standing.

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. 18-19.)

Professional Students.

Partial

Students.

For arrangements enabling Students in Medicine or Applied Science to take the course in Arts also, and obtain B.A., with B.Sc. (Applied Science), or M.D., in six years, see pp. 27-28.

Undergraduates who have previously been 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,

# Honed to s ed by t ordinar year.

No Ur (a) he h ceding S Professo: lectures progress discontin Honou Professor Such stuc ination li

> A Canc exemption Examinat Honours, that subject of the ren Candidate tures and pp. 14-15), Candidate Honours, as the ord

A studen Third Yea be required the ordinan and to pass B.A. Exam itons obtai

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# 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.

No Undergraduate is permitted to attend the Honour lectures 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.

Honour lectures are open to all Partial Students who can satisfy the Professor of their fitness to proceed with the work of the course. Such students will not be ranked with Undergraduates in the Examination lists.

#### Candidates for Honours in the Third Year.

A Candidate for Honours in the Third Year, in order to obtain exemptions, must have taken a First Class at the Ordinary Sessional Examinations in the subject in which he proposes to compete for Honours, or a First or Second Class in the Advanced Section of that subject; must stand higher than Third Class in not less than half of the remaining subjects, and have no failure in any subject. 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 pp. 14-15), 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 ordinary departments (but see note on Honour Biology, p. 19), and to pass the two corresponding examinations only, at the ordinary B.A. Examination. A Candidate, however, who at the B.A. Examinaitons obtains Third Rank Honours, will not be allowed credit for

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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. 13-15.

#### Honour and Additional Courses.

Students who intend to graduate with Honours in any of the following Departments, are strongly recommended to take the Advanced Sections of the Department in the First and Second Years, where such are provided.

(N.B.—The numbers which stand after the Academic years refer to the corresponding numbers of the Courses given on pp. 56-88.)

#### 1. Classical Literature and History.

THIRD YEAR HONOURS.	Greek, 5.	
	Latin, 5.	Тни
FOURTH YEAR HONOURS.	Greek, 6.	
	Latin, 6.	Fou
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#### 2. English Language and Literature and History.\*

THIRD YEAR HONOURS, 6, 8, 10, 12, 14.	1	
THIRD YEAR ADDITIONAL, 6 or 10.		Foul
Fourth Year Honours, 5, 7, 9, 11, 13, 15. Fourth Year Additional, 7 of 11 of 15.		1000
FOORTH TEAR ADDITIONAL, 7 OF IT OF 15.		With

#### Modern Languages (French and German) and History.

#### 3. French.

Third Year Honours, 5. Fourth Year Honours, 5.

#### 4. German.

THIRD YEAR HONOURS, 5a and 5b. THIRD YEAR ADDITIONAL, 5a. FOURTH YEAR HONOURS, 6a and 6b. FOURTH YEAR ADDITIONAL, 6a.

#### 5. Semitic Languages.

THIRD YEAR HONOURS, 4a and 4 b. THIRD YEAR ADDITIONAL, 4b without Literature. FOURTH YEAR HONOURS, 5a and 5b. FOURTH YEAR ADDITIONAL, 5b without Literature.

\* For Course in History see p. 74.

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#### 6. History.

THIRD AND FOURTH YEAR HONOURS, 4.

#### 7. Mental and Moral Philosophy.

THIRD YEAR HONOURS, 4. FOURTH YEAR HONOURS, 5, 6.

#### 8. Mathematics and Physics.

THIRD YEAR HONOURS, 7, 8. FOURTH YEAR HONOURS, 9, 10, 11.

#### 9. Geology and Mineralogy.

THIRD YEAR HONOURS, Mineralogy, 8, 10. FOURTH YEAR HONOURS, Mineralogy, 9. FOURTH YEAR HONOURS, Geology, 2, 3, 4, 5, 6.

#### 10. Chemistry.

THIRD YEAR ADDITIONAL, 3, 5. FOURTH YEAR ADDITIONAL, 4, 6. Courses 2 (Second Year) and 7 (Fourth Year) are optional.

# 11. Biology.

Botany, 1b.

FOURTH YEAR HONOURS,

(Zoology, 2.

With the Honour Course in Biology only one ordinary course is required.

3. Ordinary Course for the Degree of B.Sc. (Arts).

# First Year.

The English, French, German, Mathematics and Physics of the ordinary B.A. Course.

## Second Year.

English (two-thirds of the B.A. course in Second Year) p. 63. Logic (one-third of the B.A. course in Second Year) p. 75. French; German; Chemistry; pp. 68, 71, 82. Mathematics or Botany of 3rd Year; or Zoology of 3rd Year.

4. After passing the Intermediate examination, the candidate for a B. Sc. degree will specialize in the subjects enumerated under the "Science" group of options in the B. A. curriculum. His choice of subjects will be determined according as he may intend to follow mainly the line of mathematico-physical studies or physico-chemical or biological, or geological.

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

Bachelors of Arts of at least one year's standing who (a) shall have taken for one year a graduate course of study in Arts in the University, previously submitted to and approved by the Faculty, and (b) shall have passed an examination at the end of the course, and (c) shall have presented, if required, a satisfactory thesis, shall be entitled to the degree of Master of Arts. Bachelors of Arts of at least two years' standing who shall have presented a satisfactory thesis and passed a special examination, shall be entitled to the degree of Arts.

Any Bachelor of Arts who graduated prior to May 1st, 1899, or any Undergraduate in Arts registered at that date, and proceeding thereafter to the degree of Bachelor of Arts, shall at his option be entitled to the degree of Master of Arts on the following conditions:

I. 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 gree. N.I These

> 3. Secor the C quire in Sci (a) divide Gro Gro (b) into th Gro Mecha Grou mistry Groi Histor (c) for Ex ature s section two or one of subject (d) sidered didate ordinat (e) distribu tion in For be mad

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than two months before the Candidate proceeds to the Degree.

N.B.—The last day in the session of 1899-1900 for sending in Theses for M.A. will be Jan. 31st, 1900.

#### 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.

(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 *Literature* 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 one 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

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see p. 36. (In case of failure, the candidate may present himself in a subsequent year without further payment of fees.) The examination will be held in April in McGill College only. A candidate after fulfilling all the conditions, ought to notify the Faculty of his desire to proceed to the degree at the next convocation.

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 Graduates.

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. Certificates of standing will be given.

# Regulations for the Degree of M.Sc.

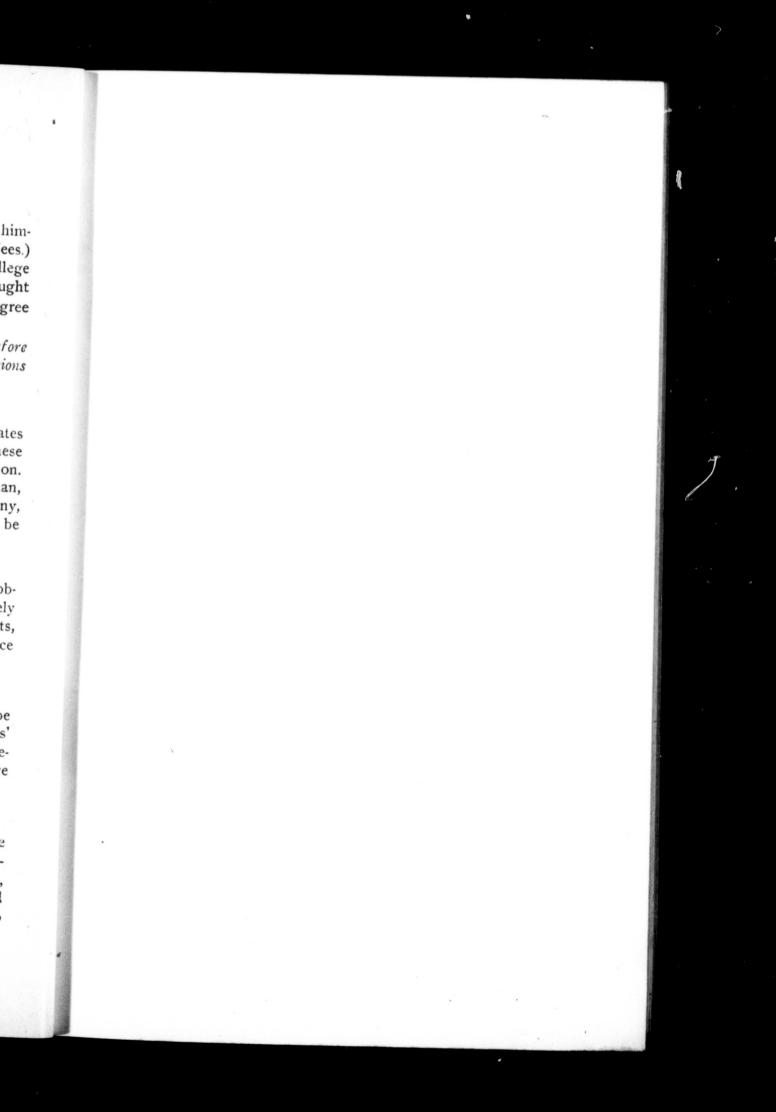
Bachelors of Arts or Bachelors of Science (Arts) may obtain the degree of Master of Science on conditions precisely similar to those given above for the degree of Master of Arts, except that the graduate course must be a course in Science in the Faculty of Arts.

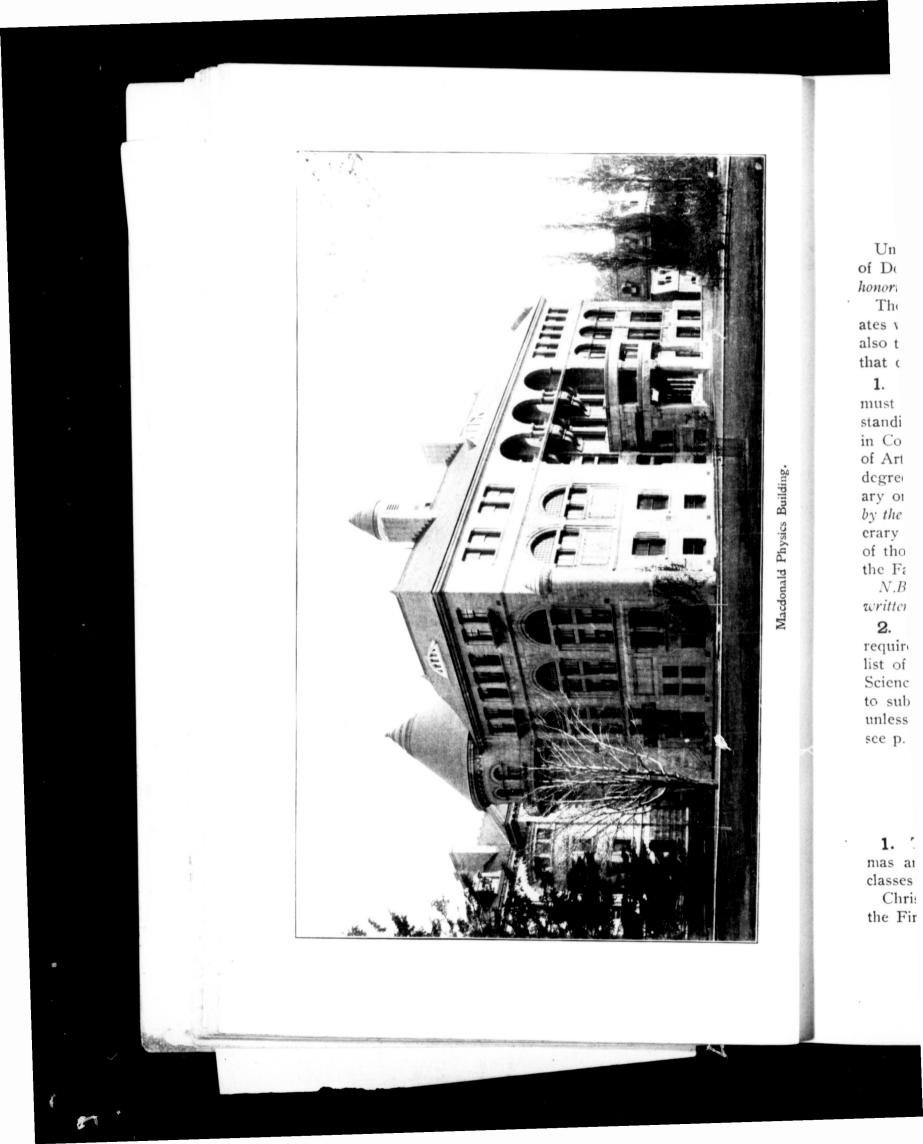
# Regulations for the Degree of D.Litt.

Candidates for the degree of Doctor of Literature must be Masters of Arts, who, being graduates at least of five years' standing, shall have distinguished themselves by special research and learning in the domain of Literature. They are required to present a satisfactory thesis or published work.

# Regulations for the Degree of D.Sc.

Candidates for the degree of Doctor of Science must be Masters of Arts or Masters of Science, or Doctors of Medicine, who, being graduates of at least five years' standing, shall have distinguished themselves by special research and learning in the domain of Science. They are required to present a satisfactory thesis or published work.





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

Under the revised regulations of the University, the degree of Doctor of Laws will, after May 1st, 1899, be granted *honoris causa* only.

The degree of Doctor of Laws in course is open to graduates who obtained their degree prior to May 1st, 1899, and also to Undergraduates in Arts, who, being so registered at that date, shall thereafter proceed to graduation.

1. Candidates for the degree of LL.D. in course, 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 been *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 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, unless otherwise ordered by vote of the Faculty. For fees, see p. 36.

### 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.

Christmas Examinations will be held in all the subjects of the First and Second Years. Candidates who fail in courses of the First and Second Years, terminating at Christmas, will be required to pass at the Sessional Examinations on an extra paper in the subject in which they have failed.

Christmas Examinations in the Third or Fourth Years may be held at the option of the Professors.

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

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 following 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 loss 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. Examinations Supplemental to the Sessional Examinations will be held in September, simultaneously with the Entrance Examinations, and at no other time.

5. 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.

### 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:

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1 The subjects of the Matriculation Examination are stated on pp. 6-9.

(b) Greek or Latin;

(c) Latin or Greek or a Modern Language.

(d) Mathematics, including Dynamics or Elemen-

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tary Biology and Dynamics.

Any three (e) Chemistry.

(f) Logic and Psychology.

(g) Hebrew.

# Intermediate.

English-The course for the second year. See pp. 63-64.

Greek.—THUCYDIDES "Rise of the Athenian Empire" (Colson, Macmillan), and "The Capture of Sphacteria" (Graves, Macmillan); SOPHOLES, 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 Athenian Empire, (Longmans' Epochs of Ancient History), with Abbott's Pericles (Putnams), and in Literature on the outlines as contained in Jebb's Primer of Greek Literature (pp. 1 to 100), (Macmillan).

A paper will also be set early in the course of the Session on the Summer Readings,—Luciani Vera Historia (Jerram, Clarendon Press): See p. 57.

Latin.-LIVY IX; QUINTILIAN X, Sections 37-131 (Peterson, Clarendon Press, smaller edition); HORACE, Historical and Political Odes (Church, Blackie and Son); Latin Prose Composition and Translation at sight of Latin into English; History, from the Tribunate of Gaius Gracchus to the Battle of Actium (as in Longman's Epoch Series or Shuckburgh's History); Literature: Wilkins Primer (Macmillan).

A paper will also be set early in the course of the Session on the Summer Readings,—Virgil, Georgics I: See p. 60.

French.-The Course for the Second Year. See pp. 68-69.

German.-The Course for the Second Year. See pp. 71 72.

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Mathematics. -Arithmetic, Euclid, Books I., II., III., IV., VI. and defs. of Bk. V.—Algebra, including Quadratic equations; the three Progressions; Ratio, Proportion and Variation; Permutations and Combinations; Scales of Notation; Logarithms; Interest and Annuities; Elements of Determinants; Geometrical Conic Sections.—Solid Geometry. (Euclid, Bk. XI, and first two Props. of Bk. XII or equivalent); Spherical Trigonometry.

**Dynamics**.—Projectiles; Impact; Simple Harmonic Motion; Simple and Compound Pendulum; Energy of Rotation.

Chemistry.-The course for the second year. See p. 82.

**Logic and Psychology** — The Course for the Second Year. See p. 75.

Hebrew.- The course for the second year.

**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 p. 14, 15.)

#### Final.

- Greek.—PLATO, Republic II, III, IV, to 435A; AESCHYLUS, Agamemnon; Composition and Translation at Sight; paper on the Constitutional History of Athens, Greek Literature and Antiquities. A Paper will also be set *in October* on the Summer Readings,—Merriam's "The Phacacians of Homer" (Harpers. See p. 58.)
- Latin CICERO, Philippics V and VII; LUCRETIUS, I,—III (Selections); TACITUS, Histories II. Composition and Translation at Sight. History of the Roman Empire to the reign of Domitian. A paper will also be set *in October* on the Summer Readings, Horace. Epistles II. with De Arte Poetica. See p. 61.
- Mathematical Physics.—Mechanics and Hydrostatics, as in LONEY'S Mechanics and Hydrostatics; or Optics and Astronomy, as in GALBRAITH and HAUGHTON or BRINKLEY.

Mental and Moral Philosophy. – MURRAY'S Introduction to Ethics. Natural Science. – (a) Mineralogy and Geology. See p. 87; or (b) Botany. See p.85; or (c) Zoology. See p. 86; or (d) Experime

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# General

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Practical Geology and Palaeontology (Additional). See p. 88; or (e) Practical Chemistry (Additional). See p. 83.

**Experimental Physics.**-Electricity and Magnetism. (See courses of Lectures, p. 80.)

English Literature - The course for the Fourth Year. See p. 64.

French.-The Course for the Fourth Year. See p. 69.

German.-The Course for the Fourth Year. See p. 72.

Hebrew. --Isaiah I to X; LIII; LV; Psalms LXVI to LXXI. Grammar, 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. 18-19.

# 6. Exemptions for Students in Professional Faculties.

**General Regulations** – Students of the Third and Fourth Years, nuatriculated 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. 29.)

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 Medicine following privileges:-

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). 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.

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 end 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.

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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 for 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 B.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. Sc. (Applied Science) 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 Applied 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.

#### Theological Colleges.

Applied

Science.

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

2. The Faculty will make formal reports to the governing body of the Theological College which any such student 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.

4. In the Third and Fourth Years they are allowed exemptions, as stated above.

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

1. Gold Medals will be 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 Hen: Li The Prin so The Anne so The Shak att The Loga to

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the Corporation by the Faculty on the report of the Examiners:--

- The Henry Chapman Gold 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.

3 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. 27) 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.

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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. Graduates who attend lectures in any subject, and pass the corresponding Examinations therein, may obtain certificates of their standing, whether the course in question be Ordinary, Advanced or Honour.

6. His Excellency the Earl of Minto has been pleased to offer annually during his term of office 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 :---

(1) 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.

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(b) The Regulations for the Gold Medal, if awarded for First Rank General Standing, are as follows:—

(1) 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) EXPER-IMENTAL 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 \$15 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:—

(1) 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) There will be two Examinations of three hours each—one in Grammar and the other in Translation and Analysis.

(Course for the present year : Hebrew Grammar (Gesenius); Translation and analysis of Exodus; Isaiah XL. to the end of the bcok.)

(3) In case competitors should fail to attain the above standard, the prize will be withheld, and a prize of \$30 will be offered in the following year for the same.

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 English 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 :--

 The Lectures of the Third and Fourth Years on Anglo-Saxon.
 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 aunual 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, mtended as a tribute to the memory of the late Rev. Chas. 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, 1899, 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. Science Scholarships Granted by Her Majesty's Commission for the Exhibition of 1851. —These scholarships of the value of £150 a year 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."

Four nominations to these scholarships have already been

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placed by the Commissioners in 1891, 1893, 1895 and 1897 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.

11. 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, 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 all qualified persons.

For conditions of Entrance see p. 13.

### 9. Attendance and Conduct.

All students shall be subject to the following regulations:-

1. A Class-book shall be kept by each Professor 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.

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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. Any student found guilty of dishonest practices at an examination is liable to expulsion from the University.

5. While in College, or 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.

6. 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.

7. Any student who does not report his residence on or before November 1st in each year is liable to a fine of one dollar.

8. 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.

9. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be immediately reported to the Principal, or, in his absence, to the Vice-Principal.

10. 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.

The fees must be paid to the Bursar, and the receipts shown to the Dean within a fortnight after the commencement of attendance in each moved permiss Under who hav and are old scal

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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.

Undergraduates matriculated before May, 1898, and Partial Students who have entered the affiliated Theological Colleges before May, 1898, and are pursuing the curricula of such Colleges, are subject to the old scale of fees.

1. Undergraduates — \$60 per session. This will include the fees for Laboratory work, Library, Gymnasium and Grounds, and Graduation. In the Third and Fourth Years, it will cover the normal amount of practical instruction given in each subject having a Laboratory Course.

Every candidate for the September Matriculation Examination must pay a fee of \$5 before 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, \$10, in addition to the sessional fee.

2. Partial Students.-(First and Second Years.)-\$16 per session for one course of lectures, including the use of the Library; \$12 per session for each additional course.

3. Partial Students --- (Third and Fourth Years.)-\$25 per session for one course of lectures, including the use of the Library; \$20 per session for each additional course.

N.B.—The lectures in one subject in any one of the four College years constitute a "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.

4. Graduates in Arts of this University are allowed, on payment of onc-half of the usual fees, to attend all lectures, except those for which a special fee is exigible. For Bachelors of Arts proceeding to M.A.
by taking for one year a graduate course of study, the fee is \$40. This will cover Laboratory work.

5. Caution Money.—Every student is required to deposit with the Bursar the sum of \$3 as caution money for damage done to furniture, apparatus or books, etc.

# Special Fees.

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ELOCUTION (optional)	\$5 00
GYMNASIUM (for partial students), optional	2 50
SUPPLEMENTAL EXAMINATION, at the regular date fixed by the	
Faculty	2 00
SUPPLEMENTAL EXAMINATION, when granted at any other time	
than the regular date fixed by the Faculty	5 00
CERTIFICATE OF STANDING, if granted to a student on applica-	
tion	1 00
CERTIFICATE OF STANDING, if accompanied by a statement of	
classification in the several subjects of examination	2 00
EXAMINATION FEE for candidate intending to enter the Medi-	
cal Faculty	5 00
ENTRANCE EXAMINATION CERTIFICATES for candidates who	
may be prevented from proceeding to a course in the	
University	5 00

All applications for certificates must be addressed to the Registrar of the University, accompanied by the required fee.

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

In the Third and Fourth Years, under the old regulations, a special fee of ten dollars is charged for laboratory courses (optional) in Botany, Chemistry, Physics, and Zoology. A fee of five dollars is charged for the laboratory course (optional) in Petrography.

All fees for Supplemental Examinations must be paid to the Bursar, and the receipts shown to the Dean before the examination.

All fines are applied to the purchase of books for the Library.

# Higher Degrees.

Fee	FOR THE	Degree	of M.A. or M.Sc	\$20 0	00
""	"	"	(in absentia)	40 0	00
**		**	LL.D. (old regulations)	80	00
	**	"	" D.Lit., or D.Sc	80	00

The fees 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. If no thesis be required, the fees must be paid before the Examination.

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# IV. SCHOLARSHIPS AND EXHIBITIONS. General Regulations.

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

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 Scholar ships. The subjects of examination for each are as follows :--

Science Scholarship --- MATHEMATICS-Differential and Integral Calculus; Analytic Geometry; Plane and Spherical Trigonometry; Higher Algebra and Theory of Equations. NATURAL SCIENCE--Botany; 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, or GERMAN.

Second Year Exhibitions – CLASSICS, MATHEMATICS, ENGLISH LANGUAGE AND LITERATURE, 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.

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Unilicaf the the 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.

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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.

For the session of 1899-1900 there are twenty Scholarships and Exhibitions including the following:-

- The Jane Redpath Exhibition, founded by Mrs. Redpath, of Terrace Bank, Montreal:-value, about \$90 yearly, open to both men and women.
- The Macdonald Scholarships and Exhibitions, founded by Sir W. C. Macdonald, 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 \$90 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, \$100 yearly.
- The Barbara Scott Scholarship, 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:--value, \$100 and \$120 yearly.
- One Dcnalda Scholarship.—value, \$125 yearly.
- Ottawa Valley Graduates' Society Exhibition, awarded on results of June Examination.
- The Sir William Dawson Exhibition, given by the New York Graduates' Society.—value \$60.

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# Exhibitions and Scholarships Offered for Competition at the Opening of the Session, Sept. 14th, 1899.

Through the liberality of private donors, the University is enabled to offer a number of additional Exhibitions (tenable for one year) to students entering the First Year.

The following is a complete list:-

Six	Exhibitions	of	<b>\$</b> 125	each	(Open to men only	)
One	**	"	120			
Thr	ee ''	"	100		(Open to women or	nly)*
One	66	**	90			• /

The Examination will be held at McGill College, Montreal, on Sept. 14th, 1899; and also at any of the following centres, provided that application in writing be made to the Secretary of McGill University by intending candidates not later than September 1st.

In the Province of Ontario, at Toronto, Kingston and Ottawa.

In the Province of Nova Scotia, at Halifax.

In the Province of New Brunswick, at St. John.

- In the Province of Prince Edward Island, at Charlottetown.
- In the Province of British Columbia, at Victoria and Vancouver.

In the Province of Manitoba, at Winnipeg.

In the Island of Newfoundland, at St. John's.

No application received after September 1st will be considered.

All the other Entrance, Exhibition and Scholarship Examinations of September, 1899, will be held at McGill University only, on the 14th of that month.

For subjects of Examination see pp. 9, seq.

# To Students entering the Second Year, three Exhibitions of \$125, and one of \$100.

Greek.—Luciani Vera Historia (Jerram); DEMOSTHENES, Philippic I.; EURIPIDES, Medea.

\*One or more of these exhibitions may be given to candidates entering the Second Year. A modern language may be substituted for Greek. Latin.-VIRGIL, Georgics, Bk. I.; HORACE, Odes, Bk. IV.; Livy, Bk. XXI.

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, Vol. I.

**Mathematics**—Euclid (six books); Casey's Sequel to Euclid; Algebra (HALL AND KNIGHT'S Advanced); Theory of Equations (in part); Trigonometry (first six chapters, GALBRAITH AND HAUGHTON with deductions).

English and Modern History — Language. — TRENCH, Study of Words. Literature. — SPENSER, 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, Longmans'). English Composition. — The candidate will be required to write an essay on some subject connected with the literature or history prescribed.

**French**.—F LZAC, Le Cousin Pons;VICTOR HUGO, Ruy Blas; DE VIGNY, Le Cor; BARBIER, l'Idole. Grammar, Translation and Composition.

#### Or, instead of French:-

German —German Grammar (an amount equal to JOYNES-MEISS-NER, Accidence and Syntax, including all exercises in Translation); GRIMM, Kinder-und Hausmaerchen (Vandersmissen's edition); SCHIL-LER, Der Neffe als Onkel, Der Gang nach dem Eisenhammer; GOETHE, Hermann und Dorothea; BAUMBACH, Die Nonna (Heath & Co.); Translation from English into German; Translation at sight from German into English.

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.

Two of these are offered in Mathematics and Logic, one of the two being for women only, and one in Chemistry and Logic as follows:—

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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. I, 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. 1-13 (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.

**Chemistry and Logic** — CHEMISTRY.— Mendelieff, "The Principles of Chemistry." ESSAY.— The Value of the Periodic Law in the Determination of Atomic Weights. LOGIC, as in Jevons' Elementary Lessons in Logic.

Intending Candidates should consult the Professors of Chemistry with regard to the details of the chemical work.

NOTE.—This Scholarship will be awarded alternately in Chemistry (1900), and Botany (1901), with Logic as a subordinate subject in each case.

The remaining two Scholarships [viz., the Barbara Scott, \$100, and the Charles Alexander, \$90] are offered in Classics and Modern Languages as follows:—

- Greek.—PLATO, Purves, Selections, pp. 1-112 (Clarendon Press); THUCYDIDES, Book VI. (Marchant, Macmillan); SOPHOCLES, Antigone (Jebb, Pitt Press); or Campbell and Abbott, Clarendon Press).
- Latin.—HORACE, Epistles, Book I. (Wilkins, Macmillan): CICERO, *Pro Plancio* (Auden, Macmillan); VIRGIL, Aeneid, Book VI. (Sidgwick, Pitt Press); SALLUST, Catiline; CICERO, Select Letters (Abbott, Ginn & Co.).

Greek and Latin Prose Composition, and Translation at Sight.

Ancient History.—Text-Books.—SMITH, Student's Greece; MOMM-SEN, Rome (abridged).

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English and History.—Literature.—SHAKESPERE, 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; MOLIERE, Le Misanthrope; A. DE MUSSET, Les Nuits; A. DE VIGNY, Cinq Mars. Grammar, LANSON, Literature Francaise. Oral Examination.

#### Or, instead 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, Pitt Press); GOETHE, Egmont; German Grammar and Composition; Translation from English into German; Dictation.

#### Changes for September, 1900.

In the Exhibition Examinations, September, 1900, the following will be substituted for the corresponding books in the Calendar for 1898-99.

- SECOND YEAR.—French.—V. HUGO, Ruy Blas, BALZAC, Les Chouans, MICHELET, Pages choisies (chez A. Colin, Paris); DAUDET, Jack; Oral examination.
- THIRD YEAR.—Frer ch.—V. HUGO, Préface de Cromwell; DE MUSSET, Les Nuits; DE VIGNY, Cinq Mars; Mo-LIERE, Le Misanthrope; RACINE, Britannicus; LANSON, Litterature française (18th and 19th Centuries); Oral examination.
- SECOND YEAR.— German For GRIMM'S Kinder-und Hausmärchen substitute:— HAUFF, Der Swerg Nase (Heath & Co.), RIEHL, Der Fluch der Schönheit (Heath & Co.), and BENEDIX, Die Hochzeitsreise (Heath & Co.).
- THIRD YEAR (Men).-German.- Add to texts already prescribed:-GOETHE, Dichtung und Wahrheit (Heath & Co.); MEYER, Gustav Adolph's Page (Heath & Co.); SCHILLER, Die Braut von Messina.

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## V. UNIVERSITY BUILDINGS, Etc.

## The University Library.

The various libraries of the University now contain about 70,000 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 COLLECTION. This is still being added to by Mrs. Peter Redpath, is now of great value, and affords unusual opportunities for the study of English History. An important feature of the 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 190 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.

In the autumn 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 latter 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 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.

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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 Room from 9 a.m. till 6 p.m., and also from 7.30 till 10.30 p.m. On Saturdays, both Library and Reading Room close at 5 p.m. During vacations, both Library and Reading Room 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 places 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 they 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 person 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. Shoul its return and be rea the book a be sent for

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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:-

I. The Botanical Room on the ground floor contains the Herbarium, consisting of 30,000 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 Museum 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 collections 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 vertebrate 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 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 Macdonald 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 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 important instruments for exact measurement, to be used in connection with special work and research.

The following brief report will indicate the general nature and extent of the equipment:—

RESISTANCE STANDARDS.—There are about 30 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 purposes. These have been tested and compared and found to agree as closely as would 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 chiefly made 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.

For the comparison and determination of low resistances, a Loring apparatus with the improvements made by Professor V. Jones has been set up. Before being sent out to McGill University, the apparatus was set up and tested in England by Professors V. Jones and Ayrton, and a re-determination of the ohm made by its means. The \_

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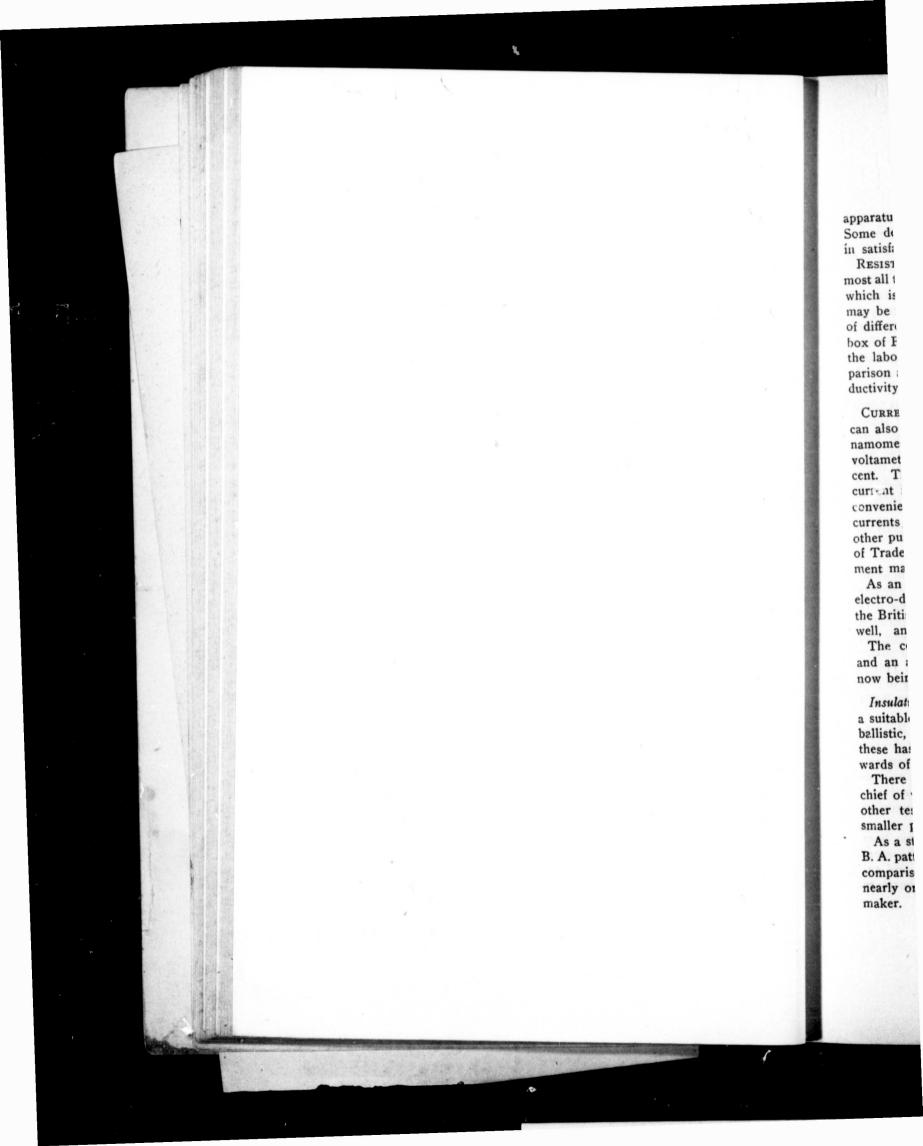
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Macdonald Physics Building Departmental Library.



Macdonald Physics Building. An Electrical Laboratory.



apparatus is a very valuable addition to the laboratory equipment. Some determinations have already been made, and the apparatus is in satisfactory working order.

RESISTANCE BOXES.—The collection of resistance boxes includes almost all the best types. There is a Thomson-Varley slide box by Nalder, which is 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 Prof. Anthony's pattern which has been permanently set up in the laboratory for the determination of resistances. For the comparison and determination of low resistances, there is a Kelvin conductivity bridge.

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 we have 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 an absolute determination of the E. M. F. of the Clark cell is

now being made by its means. 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 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.

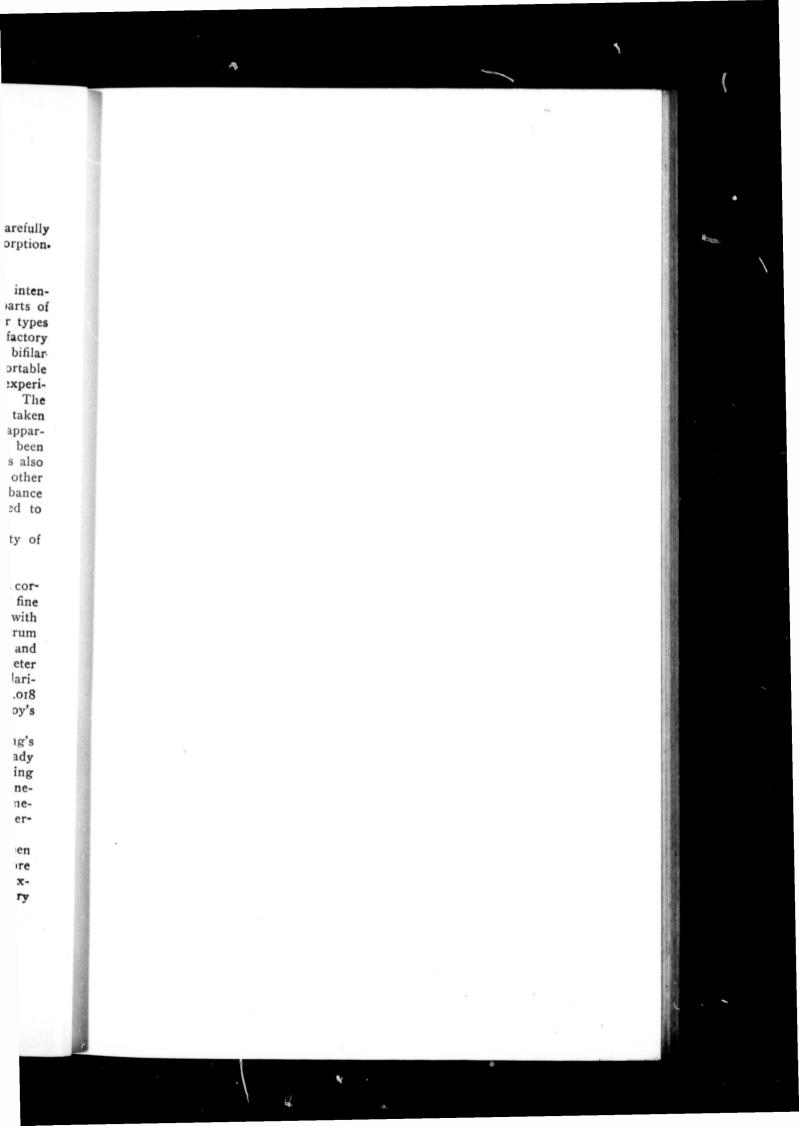
Magnetic Tests .- Determinations of the dip and horizontal intensity have been made with the Kew instruments in different parts of the laboratory, and of the horizontal intensity with two other types of magnetometer. The values obtained showed a very satisfactory agreement, and were in all cases verified by the local and bifilarvariometers. 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 been provided.

The collection of apparatus in Acoustics, Optics and Heat is on a corresponding scale with the electrical equipment, and includes many fine and valuable instruments such as a six inch Rowland grating with mountings and accessories by Brashear, a complete set of spectrum and Crookes' Tubes by Geissler; a large four prism spectroscope and spectrophotometer by Schmidt and Haenack; a Geneva spectrometer with a quartz train; a Victor Laing spectrometer; a Landolt polarimeter and accessories; a set of electrical thermometers reading to .or8 Fah., and now used for determining soil temperatures, and two Boy's microradiometers.

Amongst the special apparatus may be mentioned a set of Ewing's seismographs on which records of two earthquakes have already been obtained; a pair of Darwin mirrors and accessories for measuring small tilting movements of the earth; a standard Rieffler clock; a Geneva comparator and standards of length; a set of mercury and mechanical pumps; and a set of mechanical models from the Engineering Laboratory and Instrument Company at Cambridge.

A complete catalogue of the apparatus in the laboratory has been made, and it is intended to publish a short catalogue of the more special instruments, which will be of use to outside students and experimentalists who may wish to know what facilities the laboratory offers for any particular line of Research.





## Macdonald Chemistry and Mining Building.

In September last the Chemical work was transferred to the new building, where admirable facilities are afforded for study and research in the various departments of Chemistry. The building is spacious, admirably lighted, and ventilated by means of electric fans, one placed in the basement and two in the attic. The electric current for these, as well as for lighting purposes, etc., is obtained from the Engineering Building. The rooms throughout are heated by hot water, and the fresh air introduced into the building is heated by passing over steam coils. The principal laboratories and preparation rooms are abundantly supplied with distilled water brought by tin pipes from a tank in the attic.

The main lecture theatre, extending through two storeys, is entered from the ground floor, and seats nearly 250 students. The acoustic properties of the room have proved excellent. The lecture-table is supplied with coal-gas, oxygen and hydrogen, electricity, water, vacuum, down-draught, etc., and can be well seen from all parts of the room.

Besides the main lecture theatre there are three smaller class-rooms, accommodating from 40 to 60 students each.

Macdonald Chemistry and Mining Building

The three principal laboratories have each a floor-space of about 2,400 square feet, and together have accommodation for nearly two hundred students working at a time. They are lighted on three sides, and have ample hood space. One is intended for beginners, and the others for more advanced work, more particularly in qualitative and quantitative analysis. In connection with each of the main laboratories is a balance-room, equipped with balances by several of the best makers.

Physical Chemistry is provided for in a special laboratory, nearly 30 by 40 feet, lighted from the north, and supplied with electricity. steam, vacuum pumps, etc. The equipment of this department consists of the apparatus necessary for the determination of the specific gravities of solutions, of the depression of freezing point, and the rise of boiling point, of the densities of gases and vapours. There are constant temperature baths for accurate measurement of solubilities, Kohlrausch's apparatus for determining the electrical conductivity of solutions, and the apparatus necessary for measuring the electromotive forces generated between metals and their solutions, and in voltaic cells generally. There are also calorimeters for measuring the heat effects produced in chemical reactions. There is on the same floor an optical room furnished with refractometers for measuring the refractive indices of solutions, goniometers, polariscopes and spectroscopes. Other forms of apparatus will be added as required for research work.

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Immediately adjoining the laboratory of Physical Chemistry is the Photographic department, supplied with two dark rooms, arranged on the maze system, and supplied with the necessary appliances for all ordinary photographic work, including an enlarging camera. Apparatus for micro-photography will shortly be added to the equipment.

The laboratory for gas analysis has a northern exposure, and is fitted with a large tank, to contain water at the temperature of the room for use in the measurement of gases. The tables are arranged for work with mercury, and the laboratory is supplied with the apparatus of Hempel, Dittmar, Orsat, Elliot, and others. It contains also Fleuss, Boltwood and Töpler pumps for providing high vacua.

The laboratory for electrolytic analysis is supplied with accumulators, thermopile, platinum electrodes, rheostats, ammeters, voltmeters, etc.

Another room is shortly to be equipped with electric furnaces and other appliances for electro-chemical work.

The organic department comprises a laboratory for preparations and research, a combustion room for analysis, a dark room for polariscope and saccharimeter work, and a lecture room. The laboratory is fitted with all the necessary apparatus for organic research—special hoods for work with poisonous gases, regulating ovens for digesting and drying at various temperatures, filter presses for the extraction of raw materials, and various forms of apparatus for distillation in vacuo. The dark room is equipped with polariscopes and saccharimeters for sugar work. And there is a large supply of the necessary organic chemicals, which are supplied free of charge to students engaged in routine or research work in this department.

The laboratory for determinative mineralogy has places for 28 students, and is supplied with abundant material for practical work. It adjoins the lecture-room, in which the lectures on advanced mineralogy are delivered. The mineralogical department is also provided with suitable machinery, run by electricity, for cutting and polishing minerals.

The Library contains a valuable collection of the most recent English, French and German books, and sets of various journals and transactions, including the Berichte der Deutschen Chemischen Gesellschaft, Journal für praktische Chemie, Chemisches Central-blatt, Fresenius Zeitschrift für Analytische Chemie. Annales de Chimie et de Physique, Journal of the Chemical Society, Chemical News, Mineralogical Magazine, Mineralogische und Petrographische Mittheilungen. etc. The library is open to students under such restrictions as are necessary to prevent damage or loss of books. The r togethes from th and sup building

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recent ls and n Ge--blatt, nie et News, MitstricThe rooms for allied purposes have, as far as possible, been grouped together on the same floor, and there is a hydraulic lift running from the basement to the attic. The offices and principal laboratories and supply rooms are also connected by a system of telephones. The building is practically fire-proof.

## 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 connection with this laboratory, a large collection of dried plants is maintained, from which material is drawn for practical work. Each student is supplied with a dissecting microscope, which he is required to return in good order at the close of the session.

The laboratories for special Morphology at present afford accommodation for twenty-four students. Each table is provided with a complete outfit of instruments and reagents. Provision is also made for accurate micrometric 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 opportunity for detailed studies in these several directions.

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 available 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 Hill, distant from the College about one and one-half miles, and comprises an area of about nine acres.

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

## Zoological Laboratory.

The Zoological Laboratory which is being largely extended, is situated in the uppermost floor of the Law Building (East Wing of Mc-Gill College).

Accommodation is provided for a class of 80 students.

Dissecting trays, simple and compound microscopes, reasonable quantities of the ordinary reagents and of glass, are provided by the Laboratory.

The Laboratory is provided with several large tanks, in which the commonest species of the local fauna can be studied in the living condition, and so far as possible practical work is done on fresh specimens of species inhabiting the vicinity of Montreal.

For embryological work a rocking microtome of the most improved model, a thermostat and an incubator have been purchased from the Cambridge Scientific Instrument Company.

### Petrographical Laboratory.

The Petrographical Laboratory, containing the chief rock collections of the University, is situated in the Macdonald Chemistry and Mining 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 purposes of study and comparison, in connection with advanced work and petrographical investigation, Dr. Adams' extensive private collection of rocks and thin sections is available.

## Observatory.

Latitude, N. 45° 30' 17". Longitude, 4° 54' 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 m.; 20 h. o m.; independ made. ( ture reco ments en Barogran mometers one set ( battery, with batte and one The A1 at a poin atory. T feet abov Soil ten Laborator from one The ast scope (61/2 striding 1 arranged : two collim one sidere graph; bat Observa night. Tit atory. Ti of the not bells; and The long telegraphic and instrur determined British S

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ginom.; independent series of bi-hourly temperature observations are also made. (This series will shortly be replaced by an automatic temperature record by means of the Callendar recorder.) The principal instruments employed are two standard mercurial barometers; one Richard Barograph; 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; one anemograph with battery, etc.; one sunshine recorder; one rain-band spectroscope and one rain gauge; two Callendar recording thermometers.

The Anemometer and Vane are on the summit of Mount Royal, at a point about three-quarters of a mile north-west of the Observatory. They are 57 feet above the surface of the ground and 810 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 ( $6\frac{1}{4}$  in.); a photoheliograph ( $4\frac{1}{2}$  in.); a  $3\frac{1}{4}$  in. transit with striding level, etc.; a prismatic (8 cm.) 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.

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 instruments. The position is believed to be the most accurately determined in America.

British School of Classical Studies at Athens.—This University is a contributor to the support of the above School, which affords facilities for archaeological and classical investigation and study in Greece. Graduates in Arts of McGill University are accordingly entitled to special privileges and advantages as regards tuition in the School.

Affiliation to Oxford and Cambridge.—Statutes have recently been passed, by the Universities of Oxford and Cambridge, the effect of which will be to enable qualified students of McGill University who may wish to pursue their studies at Oxford or Cambridge, to complete their curriculum at either of these centres on a shortened term of residence.

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## SIR . Professor

## SUMMER CLASSES.

It has been decided to institute annually, during the months of May and June, a series of SUMMER CLASSES, intended mainly, in the first instance, to meet the requirements of students in the first two years of their course. The subjects offered are English, Latin, Greek, Mathematics, French and German. A fee of ten dollars will be exigible for each course; or students may compound for any four courses by payment of an inclusive fee of twenty-five dollars.

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# Part Second.

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 Hiram Mills Professor of Classics.

ALEXANDER JOHNSON, M.A., LL.D., D.C.L., Vice-Principal, Dean of the Faculty of Arts, and Redpath Professor of Mathematics.

REV. J. CLARK MURRAY, LL.D., Frothingham Professor of Mental and Moral Philosophy.

BERNARD J. HARRINGTON, M.A., Ph.D., LL.D., Greenshields Professor of Chemistry and Mineralogy.

CHARLES E. MOYSE, B.A., Molson 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., Macdonald Professor of Physics.

A. JUDSON EATON, M.A., Ph D., Associate Professor of Classics.

FRANK D. ADAMS, M.A.Sc., Ph.D., Logan Professor of Geology and Palaeontology.

C. W. COLBY, M.A., Ph.D., Macdonald Professor of History ("Kingsford" Chair).

FRANK CARTER, M.A., Professor of Classics.

ERNEST WILLIAM MACBRIDE, M.A., B.Sc., Professor of Zoology.

J. WALLACE WALKER, M.A., Ph.D., Macdonald Professor of Chemistry.

E. RUTHERFORD, M.A., Macdonald Professor of Physics.

#### LECTURERS.

PAUL T. LAFLEUR, M.A., Lecturer in Logic and English. LEIGH R. GREGOR, B.A., Ph.D., Lecturer in Modern Languages. MAXIME INGRES, Lecturer in French.

(The above Professors and Lecturers constitute the Faculty.)

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#### OTHER OFFICERS OF INSTRUCTION

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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. C. M. DERICK, M.A., Lecturer in Botany. REV. J. L. MORIN, M.A., Sessional Lecturer in French. S. B. SLACK, M.A., Lecturer in Classics. H. N. SANDERS, M.A., Sessional Lecturer in Classics and Sanskrit. E. T. LAMBERT, B.A., Sessional Lecturer in Modern Languages. F. H. PITCHER, B.A.Sc., Demonstrator in Physics. ALEX. BRODIE, B.A.Sc., Demonstrator in Chemistry. J. P. STEPHEN, Instructor in Elocution. R. TAIT MCKENZIE, B.A., M.D., Instructor in Physical Culture. R. O. KING, B.A.Sc., Demonstrator in Physics. O. E. LEROY, B.A., Demonstrator in Geology. R. K. McClung, Demonstrator in Physics.

J. W. FRASER, B.A., Demonstrator in Physics.

F. S. JACKSON, Demonstrator in Zoology.

#### II. COURSES OF LECTURES

## Classical Literature and History.

Professors:-W. Peterson, M.A., LL.D. Frank Carter, M.A. Associate Professor:--A. J. Eaton, M.A., Ph.D Lecturers:-S. B. Slack, M.A.; H. N. Sanders, 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 various 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 view of the leading branches of ancient literature, and the most important phases of ancient life and thought.

Students may be examined on the whole of the work prescribed for each class, even though it may not have been overtaken in lecture.

Subjects are suggested for Summer Readings in the various branches of class work. Students are strongly recommended to undertake

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these subjects during their long vacation, and credit will be given for them at an examination held in the first week of October.

Students are also recommended to devote some part of the vacation to the subjects set down under the heads of History and Literature, which will form part of the Sessional Examinations.

#### Greek.

I. In this class, besides a review of grammatical principles (Ru- Ordinary therford's Greek Grammar, Accidence), portions of some Greek First Year. authors—e. g., XENOPHON, HOMER, HERODOTUS, LUCIAN and EURI-PIDES—are read and explained.

Second Year.

For 1899-1900 the work will be Lysias, contra Eratosthenem (Whiton, Ginn & Co.); Homer, Iliad XXII. (Edwards, Pitt Press); Euripides, Troades (Tyrrell, Macmillan). For *Composition*, the manual used will be North & Hillard's Greek Prose Composition (Rivingtons); for *Translation at Sight*, written and oral, Turner's Latin and Greek Passages (Longmans).

History.—From B. C. 560 to 479, Cox's "Greeks and Persians" (Longmans' Epoch Series).

Four hours a week.

2. The work of the Second Year will be selected mainly from the Greek Dramatists, and from THUCYDIDES, PLATO OF DEMOSTHENES. Subjects for 1899-1900:—.

SUMMER READINGS.—Luciani Vera Historia (Jerram, Clarendon Press). Students are also recommended to work through some portion of Burnet's Greek Rudiments (Longmans).

SESSIONAL LECTURES.—Thucydides, "Rise of the Athenian Empire" (Colson, Macmillan), and "The Capture of Sphacteria" (Graves, Macmillan); Homer, Iliad VI. (Edwards, Pitt Press); Sophocles, Electra (Jebb, Rivingtons, or Campbell & Abbott, Clarendon Press). The practice of *Composition and Translation at Sight* will be continued as before; North and Hillard's Greek Prose Composition (Rivingtons), and Jerram's Anglice Reddenda (First Series).

HISTORY.—The Athenian Supremacy; Cox's "Athenian Empire" (Longmans' Epoch Series), with Abbott's "Pericles" (Putnam).

LITERATURE.—Outlines as contained in Jebb's Primer of Greek Literature, pp. 1-100.

Four hours a week.

The following books are recommended for general use during the first two years of the course:—Jebb's Introduction to Homer (Maclehose); Jebb's Primer of Greek Literature, supplemented by readings in Murray, Jevons or Mahaffy: Gow's Companion to School Classics (in part); Oman's History of Greece (Longmans); Mahaffy's Primer

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

Third Year.

## 3. Subjects for 1899-1900:-

SUMMER READINGS .- Sophocles, Antigone (Jebb, Pitt Press, or Campbell & Abbott, Clarendon Press).

SESSIONAL LECTURES .- Demosthenes, Private Orations (Paley & Sandys, Vol. I. [in part], Cambridge Press); Aristophanes, Plutus (Green, Pitt Press). For practice in Composition, Sidgwick's Introduction to Greek Prose Composition will be used; for Translation at Sight, Tod and Longworth, Passages for Unseen Translation.

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).

Two hours a week.

Fourth Year.

4. Subjects for 1800-1000:-

SUMMER READINGS .- Merriam's "The Phaeacians of Homer" (Harper's).

SESSIONAL LECTURES .- Plato, Republic II., III., IV to 435A (Warren, Macmillan); Aeschylus, Agamemnon (Sidgwick, Clarendon Press). Composition and Translation at Sight as in the Third Year.

HISTORY and LITERATURE.-The Constitutional History of Athens, with a general study of Greek Antiquities and Literature.

Two hours a week.

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); Abbott's Pericles (Putnam); Haigh's The Attic Theatre (Clarendon Press); Cornish's Concise Dictionary of Greek and Roman Antiquities (Murray): Jevons' or Mahaffy's or Murray's History of Greek Literature; Kiepert's Manual of Ancient Geography (Macmillan); Greenidge's Constitutional History. King & Cookson's Comparative Grammar (Clarendon Press).

Honours. Fourth Years.

5. The work of the Honours Classes in Greek has been so arranged Third and as to admit of separate courses of lectures being given, with illustrative readings, along certain main lines of literary study, in addition to supplementary work as provided for below. In 1899-1900, the Lecture Courses being specified A. Greek Lp Clarendon Pres B. Greek His C. Greek Dra Press).

Three hours Translation a. (Clarendon Pre Prose Composi Seminary Wor parative Philolc Private Reading Press); Thucydi (Jebb, Pitt Pres In History th knowledge of th and a more mi Constitution an a general know ture, and a mo authors prescril 6. Private K Press); HEROD in Leptinem ( (Starkie, Macm ARISTOTLE, Etl I., II., IV., XI History, Liter Jebb's Growth panion to the Il Social Life in Grammar and Giles's Short I Grammar (Clas

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ition the Lecture Courses will be as under, the books selected for class reading being specified under each separate head:—

A. Greek Lpic Poetry: HOMER, Odyssey XIX.-XXIII. (Merry, Clarendon Press).

B. Greek History: THUCYDIDES, VII (Marchant, Macmillan).

C. Greek Drama: SOPHOCLES, Oedipus Coloneus (Jebb, Cambridge Press).

Three hours a week.

Translation at sight.—Fox & Bromley's Models and Exercises (Clarendon Press).

Prose Composition .- Sidgwick, and from Dictation.

Seminary Work.-Essays and Lectures on History, Literature, Comparative Philology and Ancient Philosophy.

Private Reading.—Plato, Purves's Selections, pp. 1-112 (Clarendon Press); Thucydides, VI. (Marchant, Macmillan); Sopnocles, Antigone (Jebb, Pitt Press; or Campbell & Abbott, 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.

6. Private Readings.—SOPHOCLES, Trachiniae (Jebb, Cambridge Press); HERODOTUS, Book VII. (Butler, Macmillan); DEMOSTHENES, in Leptinem (Sandys', Cambridge Press); ARISTOPHANES, Wasps, (Starkie, Macmillan); Attic Orators (Jebb's Selections, Macmillan); ARISTOTLE, Ethics I., II., and X. (Bywater, Oxford); THEOCRITUS, I., II., IV., XI., XV. (Kynaston, Clarendon Press).

History, Literature and Antiquities.—Oman, 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 Philology.—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 First Year. (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.

Fourth

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Third

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For 1899-1900 the subjects will be OVID Tristia I. (Owen, Clarendon Press); CICERO, Pro Roscio Amerino (Stock, Clarendon Press); VIRGIL, Aeneid IX. (Sidgwick, Pitt Press). For practice in *Composition*, both written and oral, the text-book in use during the first two years will be North and Hillard's Latin Prose Composition (Rivingtons); and for *Translation at Sight*, Turner's Latin and Greek Passages (Longmans). *History*.—Carthaginian Wars, B. C., 263-146; Shuckburgh's History of Rome, or "Rome and Carthage" (Longmans' Epoch Series).

Second Year. Four hours a week.

3. S. sjects for 1899-1900.

2. For 1899-1900 the subjects will be:-

SUMMER READINGS-VIRGIL, Georgics I. (Sidgwick).

Students are also recommended to continue the practice of Prose Composition (North and Hillard).

SESSIONAL LECTURES.—LIVY IX. (Stevenson, Pitt Press); HORACE Odes, as in "Historical and Political Odes," by Church (Blackie and Son); QUINTILIAN X., ch. I., sections 37-131, being Quintilian's Review of Ancient Literature (Peterson, Clarendon Press, smaller edition). Composition and Translation at Sight, North & Hillard's Latin Prose Composition (Rivingtons); and Jerram's Anglice Reddenda (First Series).

HISTORY.—The last Century of the Republic, B. C., 133-31; as in Beesly's "The Gracchi, Marius and Sulla" (Longmans' Epoch Series), and "The Roman Triumvirates" (Merivale, Longmans' Epoch Series.)

LITERATURE.—As in Quintilian X., i., §§ 85-131 (as above). Four hours a week.

The following books are recommended for general use during the first two years of the course; Shuckburgh's History of Rome (Macmillan); Strachan-Davidson's CICERO, and Warde-Fowler's CÆSAR (Putnam); Wilkins' Primer of Roman Literature, Wilkins' Primer of Roman Antiquities; Latin Grammar, Gildersleeve and Lodg2.

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

Third Year.

SUMMER READINGS .- VIRGIL, Aeneid VI. (Sidgwick, Pitt Press).

SESSIONAL LECTURES.—TACITUS, Annals I. (Furneaux, Clarendon Press); PLAUTUS, Trinummus (Gray, Pitt Press); OVID, Fasti VI. (Sidgwick, Pitt Press).

The text-book for *Composition* will be Sargeant's Easy Latin Prose Exercises (Clarendon Press); and for *Translation at Sight*, Tod & Longworth, Passages for Unseen Translation (Longmans).

HISTORY.—The Making of Rome (to 300 B.C.), as in Ihne's "Ear'y Rome" (Longmans' Epoch Series), and Shuckburgh's History.

LITERATURE Two hours : 4. Subjects JUMMER RE (vv ilkins, Mac SESSIONAL I endon Press, s millan); LUCR HISTORY .-- C Series); or Bu Two hours NOTE.-The Gow's Compar Literature (M1 Pelham's Outl Roman Empire tionary of Gree of Ancient Ge Grammar.

> 5. As in Gre arranged as to illustrative rea addition to sup the Lecture C reading being A. Latin Sat ington, Clarent B. Latin O with CICERO, ] C. Latin Ly millan; TIBUL Translation c (Clarendon Pre Seminary Wo parative Philol Private Readi Pro Plancio ( Pitt Press): S Letters (Abbot History.-A the First Centu from B. C. 146 Literature.-A Roman Literat writings of the

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LITERATURE.—Mackail's Primer of Roman Literature. Two hours a week.

4. Subjects for 1899-1900.

JUMMER READINGS.—HORACE, Epistles II., with De Arte Poetica (vv ilkins, Macmillan).

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SESSIONAL LECTURES.—CICERO, Philippics v. and vii. (King, Clarendon Press, smaller edition); TACITUS, Histories II. (Godley, Macmillan); LUCRETIUS I., II., III. (Selections) (Lee, Macmillan).

HISTORY.-Capes' "Early Roman Empire" (Longmans' Epoch Series); or Bury's History (John Murray), down to Domitian.

Two hours a week.

Note.—The following books are recommended for general use : Gow's Companion to School Classics (Macmillan); Mackail's Latin Literature (Murray); How & Leigh's History of Rome (Longmans); Pelham's Outlines of Roman History (Percival); Capes' Early Roman Empire (Longmans' Epoch Series); Cornish's Concise Dictionary of Greek and Roman Antiquities (Murray); Kiepert's Manual of Ancient Geography (Macmillan); Bennett's Appendix to Latin Grammar.

5. As in Greek, the work of the Honours Classes in Latin has been so arranged as to admit of separate courses of lectures being given, with illustrative readings, along certain main lines of literary study, in addition to supplementary work as provided for below. In 1899-1900, the Lecture Courses will be as under, the books selected for class reading being specified under each separate head:---

A. Latin Satire: JUVENAL (Duff, Pitt Press) and PERSIUS (Conington, Clarendon Press).

B. Latin Oratory: CICERO, Pro Cluentio (Peterson, Macmillan), with CICERO, Brutus (Kellogg, Ginn & Co.).

C. Latin Lyric and Elegiac Poetry; CATULLUS (Simpson, Macmillan; TIBULLUS and PROPERTIUS (Ramsay, Clarendon Press).

Translation at Sight.—Fox & Bromley's Models and Exercises (Clarendon Press). Prose Composition.—Selected Passages.

Seminary Work.—Essays and Lectures on History, Literature, Comparative Philology and Ancient Philosophy.

Private Reading-HORACE, Fpistles I (Wilkins, Macmillan): CICERO, Pro Plancio (Auden, Macmillan); VIRGIL, Aeneid V.. (Sidgwick, Pitt Press): SALLUST, Catiline (Cook, Macmillan); CICERO, Select Letters (Abbott, Ginn & Co.).

History.—A general knowledge of Roman History to the end of the First Century A. D., and a more minute knowledge of the period from B. C. 146 to the Death of Augustus.

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.

Honours Third and Fourth Years.

Third

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Fourth Year. Fourth Year.

6. Private Reading.—PLAUTUS, Rudens (Sonnenschein, Clarendon Press); CICERO, TUSCULAN DISPUTATIONS I., II.; HORACE, Odes I, and II. (Gow, Pitt Press); VIRGIL, Aeneid X-XII. (Sidgwick, Pitt Press); TACITUS, Annals III. (Furneaux, Clarendon Press); QUINTILIAN, Book X, (Peterson, Clarendon Press).

History, Literature, and Antiquities.—How & Leigh's History of Rome (Longmans); 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).

#### Sanskrit.

#### Lecturer:-Henry Nevill Sanders, M.A.

It has been determined to commence a course of instruction in Elementary Sanskrit, which shall aim at a thorough grounding in the rudiments of the language necessary to the attainment of facility in translation, and indispensable to the study of comparative grammar. While the course is intended to provide especially for those who contemplate equipping themselves as teachers of Latin and Greek, to whom a knowledge of Sanskrit is invaluable, if not indispensable, the opportunity for a systematic and at the same time not laborious elementary training in Sanskrit is one which will present itself favorably to the attention of the student of Classics. The classes are intended mainly for those who have passed the Intermediate Examinations, but students entering the second year after obtaining a first class in Greek or Latin may attend, if specially recommended. It ought reasonably to be expected that a three years' course in Sanskrit would develop an acquaintance with the language such as it is the lot of few in Canada to enjoy.

At the commencement of the course in September, Perry's Sanskrit Primer (Ginn & Co.) will form the basis of instruction with translation of easy sentences into English and Sanskrit. At the same time Students will provide themselves with Whitney's Sanskrit Grammar. When sufficient progress has been made to warrant the translation of continuous pieces, Lanman's Sanskrit Reader (Ginn & Co.) will be taken up, commencing with the Tale of Nala. Brief studies in the Literature will from time to time be discussed, and the student's attention will be throughout directed to the more certain etymologies.

A prize of \$100 has been generously offered by Mr. Caulfield of Toronto to encourage the study of Sanskrit. This will be awarded in April, 1900, to the Undergraduate Student of the Second or Third Years who in class work and the examinations has shown the greatest proficiency. Other prizes, it is hoped, will be announced later according as the attendance on the course warrants their publication.

## Er Professor Lecturer

I. A. ENGLIS tures, chiefly s with special resentences and p One hour a we

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B. EUROPEAN be given on the including Color this course is chief feature of papers will be hour a week.

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## English Language and Literature.

Professor:-Chas. E. Moyse, B.A.

Lecturer in Rhetoric and English :- P. T. Lafleur, M.A.

Ordinary

I. A. ENGLISH LITERATURE AND COMPOSITION .- A course of ler First Year. tures, chiefly synthetical, on the principles of English composition, with special reference to the use of words and the construction of sentences and paragraphs. Regular essays are required of all students. One hour a week.

Studies of authors and masterpieces of English literature in a course of about twenty-five lectures. For 1899-1900 the subject will be the leading prose Essayists of England from Bacon to Goldsmith. The treatment is critical rather than biographical, the intention being to explain the origin and growth of essay writing as a characteristic form of modern literary expression, together with the causes which have assisted in permanently establishing its popularity. Incidentally, this course proves ancillary to (A) through the opportunity which it offers of discussing analytically the style of the authors under examination. One hour a week.

B. EUROPEAN HISTORY (DR. COLBY) .- Twenty-five lectures will be given on the outlines of Classical, Mediaeval and Modern History, including Colonial expansion since the 15th century. The design of this course is less to present a mass of facts than to illustrate the chief feature of racial, political and social progress. Short historical papers will be required at regular intervals from each student. One hour a week.

2. (A) HISTORY OF ELIZABETHAN LITERATURE.—The social and literary conditions of Elizabethan England will be noticed, and illustrated by a brief study of the life and works of Sir Philip Sidney. Special attention will be given to Spenser's minor poems, and the general plan and significance of The Faerie Queene will be indicated. A sketch of the development of the English drama will follow, with a short account of the predecessors of Shakspere. The remainder of the course will be devoted to an introduction to Shaksperean study and criticism. Students are recommended to read as many of the plays as they can, especially Love's Labour's Lost, A Midsummer Night's Dream, Romeo and Juliet, Henry V., As You Like It, Hamlet, King Lear, and The Tempest. Lantern slides will be shown giving portraits of the chief personages, and illustrating the manners and customs of the time.

Fortnightly essays will be required on subjects set in connection with the lectures, and will be taken into account in determining the standing of students at the end of the session.

Two hours a week.

Second Year.

Second Year. 2 (B.) HISTORY OF THE ENGLISH LANGUAGE.—Lectures will be given on the origin of English and its relation to other languages. While the method of treatmen<sup>+</sup> will be historical rather than philological, the course will aim at making the student acquainted with the leading features of English at the main stages of its development. One hour a week.

The Second Year courses of lectures will be delivered during the Session 1899-1900, by J. W. Cunliffe, D. Lit. (Lond.).

Third Year.

Third

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Fourth

Year.

3. (A.) A course on MIDDLE ENGLISH. CHAUCER'S 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 3B.) One hour a week.

3 (B.) A course on RHETORIC. Text-Book; GENUNG, Rhetoric. (To be taken with 3 A.) One hour a week.

4. A course on the LEADING POETS OF THE NINETEENTH CENTURY. The chief aspects of the French Revolution will be considered, 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 Scott, KEATS, TENNYSON, BROWNING and SWINBURNE.—In the course for 1899-1900, special attention will be given to Tennyson and Browning. One hour a week.

The following poems have been selected for private reading. A paper will be set on them at the sessional examination of the Fourth Year:

WORDSWORTH:-The Scholars of the Village School of----; Two April Mornings; The Fountain; The Peak of Weatherlam, in the Prelude--("One summer evening (led by he) I found," Book I.); Lucy Poems; Earth has not anything-----: Hart-leap Well; Tables Turned; Lines written in early spring; To my Sister; Excursion-The Vision in the Skies. (So was he lifted gently from the ground) Book. II.; The Child and the She'l, (I have seen a curious child), (Book IV.) Laodamia; It is a beauteous evening; The world is too much with us; Scorn not the Sonnet; Milton, thou shouldst----; Daffodils; The Yarrow Poems.

COLERIDGE:-Dejection; Ode to France; Lines to a Gentleman, composed on the Night after his Recitation of a Poem on the Growth of an Individu Christabel; H SOUTHEY :---Bishop Brunc SCOTT:-Lac Byron:-A lections; Man KEATS:-Hy (Lines, etc.). SHELLEY:--( Alastor; Ozym TENNYSON :---BROWNING:cola; Pictor 1 Bishop orders 1 Apology.

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of an Individual Mind; Love; Youth and Age; Fancy in Nubibus; Christabel; Hymn before sunrise in Vale of Chamouni.

SOUTHEY:-Battle of Blenheim; Inch Cape Rock; Lord William; Bishop Bruno; Well of St. Keyne.

Scort:-Lady of the Lake; Wild Huntsman; Fire King.

BYRON:—A Distant View of Harrow on the Hill; Childish Recollections; Manfred; Childe Harold, Canto I.; Cain.

KEATS:-Hyperion; Ode to a Grecian Urn; Chapman's Homer (Lines, etc.).

SHELLEY:—Ode to the West Wind; The Cloud; The Skylark; Alastor; Ozymandias; Adonais; Hellas Choruses.

TENNYSON: - The Poet; The Princess; In Memoriam.

BROWNING:—Christmas Eve and Easter Day; Saul; Johannes Agricola; Pictor Ignotus; Fra Lippo Lippi; Andrea del Sarto; The Bishop orders his Tomb at Saint Praxed's Church; Bishop Blougram's Apology.

MCESO-GOTHIC. The course on Moeso-Gothic is intended to open the way to the comparative study of allied Teutonic languages. Particular attention will be given to the phonological relations of Moeso-Gothic and Anglo-Saxon. *Text-Book*: The Gospel of St. Mark (Skeat, Clarendon Press). One hour a week.

ANGLO-SAXON An elementary course on Anglo-Saxon. The 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-Book:* SWEET, Anglo-Saxon Primer and Anglo-Saxon Reader, Extt. IV.-VIII., and the pieces in verse. Two hours a week.

7. ANGLO-SAXON, BEOWULF. The text will be read in class and illustrated by notes on origins, philology, and verbal emendations, *Text-Book:* Harrison and Sharp (Ginn). One hour a week.

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:* MORRIS and SKEAT'S Specimens, Part II., extt. I.-IX. CHAUCER, Parlement of Foules. (Skeat, Minor poems of Chaucer, Clarendon Press.) One hour a week.

EARLY ENGLISH. The course is a continuation of 8. Text-Book: **F** MORRIS and SKEAT'S Specimens, Part II., Extt. X.-XX. One hour a week.

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Honours Fourth Year.

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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 Calendar (Herford, Macmillan); Faerie Queene, Bk. I. (Percival, Macmillan); SIDNEY, An Apology for Poetry (Cook); MILTON, Shorter English Poems (Browne, Clarendon Press); and Areopagitica (Hales). One ... ur 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's 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 10 will be followed. The works selected for private study are: DRYDEN, Annus Mirabilis, Absalom and Achitophel, Part I., the Preface to the "Fables" (Globe Edition, or for Absolom 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, Macmillan); 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 contemporary English Literature will be discussed. The following poems have been selected for special criticism and private study: WORDSWORTH, Prelude (Moxon's edition or Dent's), 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 English 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 a dition to the poems just mentioned, MILTON'S Lycidas, SHELLTY'S Adonais, and MATTHEW ARNOLD'S Thyrsis have been selected for private study. One hour a week. Note.—Hon the following them: BURKE STEPHEN, E chap. X., secs. ing of honoun Honour st the following: ism (the Seco Readings

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Note.—Honour 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.

## Department of Modern Languages.

Lecturer:-Leigh R. Gregor, B.A., Ph.D. Sessional Lecturer:-E. T. Lambert, B.A.

## A.-French.

Lecturer:-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 and write 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 of a twofold nature. On the one hand it will include an academic course of the usual character, on the other it will take cognizance of the fact that this University is situated in the midst of a French-speaking population, and will provide every student with the opportunity of learning to speak French fluently. The work of the First and Second Years is accordingly divided into two sections. In the Second Section the Natural Method alone is employed.

Sec. I. BERTENSHAW and JANAU'S Manual of French Composition (Longmans), together with the prose passages for translation into French appended thereto. The following texts will be read and studied: ABOUT, Le Roi des Montagnes (Heath & Co.); SANDEAU. Mademoiselle de la Seiglière (Heath & Co.); Episodes from GEORGE SAND'S François le Champi (Longmans); VICTOR HUGO, Ruy Blas (Heath & Co.); DAUDET, Trois Contes Choisis (Heath & Co.). There will also be regular written exercises-dictation, translation, and composition.

Sec. 2. The following outline will indicate the character of this Section, in which the Natural Method and the French language are exclusively used. (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 referred to groups and their formation noticed. (b)Biographical sketches of the leading writers of the present century, illustrated 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. A general outline of French literature from its origin to the present day will be given. (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. Deuxième livre d'Histoire de France, par AUGE & PETIT (ed. Larousse); Pages Choisies d'Alexandre Dumas (H. Parigot), ed. Colin; A. DE VIGNY, Servitude et Grandeur militaires; AUGIER, le Gendre de M. Poirier. Students are recommended to use Le Dictionnaire LAROUSSE.

The examination for the students of affiliated colleges will include the whole of Section I, and in addition the whole of the two following texts selected from Section 2: AUGIER, Le Gendre de Monsieur Poirier, Pages Choisies d'ALEXANDRE DUMAS.

Four hours weekly, two for each Section.

Second

Year.

Sec. I. An advanced Manual of French Composition and Syntax will be used in this course. The following texts will be read and studied: LOTI, Pêcheur d'Islande (Rivington, Percival & Co.); SOU-VESTRE, Un Philosophe sous les Toits (Hachette & Co.); VICTOR HUGO, Les Misérables (abridged by Sumichrast, pub. by Heath & Co.); L'Aide de Camp MARBOT, or Selections from the Mémoires du Général Baron de Marbot (Longmans).

There will be regular written exercises in composition and translation.

Sec. 2. The method used in this Section is the same as in Section 2 of the First Year, but the more advanced points of grammar will be treated, and in literature particular attention will be directed to characteristics of style. The history of the French Language and Literature from the origin to the 17th century will be treated more fully. Students are recommended to use Le Dictionnaire LAROUSSE.

The following works may be taken as specimens of the reading chosen for the class: Pages choisies de LESAGE (P. Morillot), ed. Colin; Pages choisies de TH. GAUTHIER (P. Sirven), ed. Colin; VICTOR HUGC Villemer. His The examine the whole of S TH. GAUTHIEF Four hours

3. The form previous cours portion of the will be describwill be given, which will be r works, or port private reading DURUY, Histoi ct Virginie; C maque; MOLIE more selections MME. DE SEVIO There will b

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Villemer. Histoire de France, par VICTOR DURUY, Ist volume. The examination for the students of affiliated colleges will include the whole of Section 1, together with the whole of Pages Choisies de TH. GAUTHIER in Section 2.

Four hours weekly, two in each Section.

3. 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 characteristics of the 17th and 18th centuries will be described. Biographical sketches of writers of these 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, or portions thereof, of the same period have been chosen for private reading previous to their consideration by the class: VICTOR DURUY, Histoire de France, 2nd volume; B. DE ST. PIERRE, Paul et Virginie; CORNEILLE, Le Cid, Cinna; RACINE, Athalie, Andromaque; MOLIERE, Tartuffe, Le Bourgeois Gentilhomme. Furthermore selections will be read from the works of ROUSSEAU, VOLTAIRE, MME. DE SÉVIGNÉ, BOSSUET, PASCAL, etc.

There will be regular written exercises in composition and translation.

Two hours weekly.

4. Important historical changes of various kinds in the vocabulary of French will be noticed, and sentences presenting peculiar difficulties explained. A course on the literature of the 19th century will be given. The origin of 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 sclections from their works studied in detail. The course will include selections from the works of MONTAIGNE, DESCARTES, AMYOT, CALVIN, and other great writers of the same century.

There will be regular written exercises in composition and translation.

Two hours weekly.

5. This Honour Course is divided into three sections. The First includes the Historical Study of the French Language, the Second the History of French Literature, the Third French Composition and the Reading and Study of French Texts. The First and Second sections are taken up in alternate years, the Third annually. The Honours Course is regarded as a whole, students of the Third and Fourth years taking lectures together. The course of a Third Year student will include Section I or 2, together with Composition and as many of the texts prescribed below as it may appear advisable to

### Honours Third and Fourth Years.

Fourth

Year.

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Third Year. Philology

alone will be used.

This course will deal with the historical development of the French 1899-1900. language from its origin to the present day. There will be a few lectures at the outset on the principles of Phonetics. A brief account will be given of the Low Latin as found in graffiti, correspondence. grammarians' glossaries, etc., and as ascertained by tracing back old French words to their origin in accordance with known laws. The Old French Period will be treated with much more detail, and in this connection the oldest texts, Serments de Strasbourg, Cantilène de Sainte Eulalie, short portions of the Passio Christi, Vie de Saint Alexis, Vie de Saint Léger (Koschwitz, Altfranzösisches Uebungsbuch), and longer extracts from the Chanson de Roland (GASTON PARIS), will be read and interpreted. Students will receive assistance in acquiring a fair reading knowledge of Old French subsequent to the Chanson. Provençal grammar will necessarily be referred to, and it may be possible to overtake the reading of Provencal texts (BARTSCH, Chrestomathie). The Grammar of the Modern French Period will be included as well, and will be shown to be the regular outcome of this long process of development. Students can use with advantage BOURCIEZ, Phonétique Française, Schwan's Altfranzösische Grammatik (revised by Berings), Horning's Grammar prefixed to his Chrestomathie. The larger grammars and lexicons (Meyer-Lübke, Körting, etc.), will be found in the University Library, Peculiarities of the Canadian dialect will also be noticed.

**History of** A general and comprehensive survey of French Literature from its Literature origin to the present day. Students will use LINTILHAC'S and LANSON'S 1900-1901. Histories of French Literature as text-books in order to prepare for lectures. They will furthermore be required to make constant reference to the numerous Monographs and Special Histories to be found in the Library. During the Session 1900-01 a detailed course will be given on the History of Dramatic Literature, with special reference to the influences which moulded it at its origin.

Three hours weekly.

Texts and tion.

Students will receive special instruction in the Art of Composition Composi- and the use of idiomatic French. They will be expected to write a limited number of French papers on literary and other subjects.

> Students will find it necessary to read a considerable number of the following texts during their summer holidays, and are strongly recommended to make a beginning in the summer which precedes their Third Year's Course:

BOILEAU, L'Art Poétique, Satire sur la Noblesse; LA FONTAINE, 1899-1900. Fables. (Books I, II and V); PASCAL, Lettres Provinciales (Lettres IV-X); LA B Hachette); Bo France et le P MADAME DE S 1'Epiphanie, Le le Petit Nombr Jeu de l'amour MARCHAIS, Le A list of mo going will be s One hour we

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The ordinary possible they p may study the l quial exercises given to Literat to correct and e from the æsthet guistic points of in class, and En lation of easy pi First and Secon a prescribed tex of grammar rec of texts.

I. THE JOYNE LAND, Ballads a torische Erzählt (Heath & Co.) SCHILLER, Mar man poems will given to writter · Four hours a

2. THE JOYNE: frau von Orle: (Holt & Co.); LESSING, Minna

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AINE,

IV-X); LA BRUYERE, Caractères (Chapters I, II, V, VIII) (éd. Hachette); Bossuer, Oraisons Funèbres sur Henriette-Marie de France et le Prince de Condé; DE RETZ, Mémoires (Selections); MADAME DE SÉVIGNÉ. Lettres (Selections); FÉNELON Sermon de l'Epiphanie, Lettre à l'Académie Française; MASSILLON Sermon sur le Petit Nombre des élus; FLORIAN, Estelle et Némorin; MARIVAUX, Jeu de l'amour et du hasard; LESAGE, Gil Blas (Selections); BEAU-MARCHAIS, Le Figaro.

A list of modern texts approximately equal in extent to the fore-1900-1901. going will be subsequently announced. One hour weekly.

## B-German.

Lecturer:-Dr. Gregor. Sessional Lecturer:-Mr. Lambert.

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. Some time is devoted to colloquial exercises in the First and Second Courses; special attention is given to Literature in the Third and Fourth. Importance is attached to correct and expressive reading. Classic texts are carefully studied, from the æsthetic and critical as well as from the historical and linguistic points of view. A considerable amount of translation is done in class, and English-German exercises are supplemented by the translation of easy prose passages and the "retranslation" of texts. In the First and Second Years the course on grammar is taken mainly from a prescribed text-book. In the Third and Fourth Years certain points of grammar receive special treatment in connection with the study of texts.

I. THE JOYNES-MEISSNER German Grammar (Heath & Co.); UH-LAND, Ballads and Romances (Macmillan & Co.); HOFFMANN, Historische Erzählungen (Heath & Co.); WILDENBRUCH, Das edle Blut (Heath & Co.); BAUMBACH, Der Schwiegersohn (Heath & Co.); SCHILLER, Maria Stuart (Heath & Co.); a few well-known German poems will be committed to memory; dictation; prominence is given to written exercises.

· Four hours a week.

2. THE JOYNES-MEISSNER German Grammar; SCHILLER, Die Jungfrau von Orleans (Heath & Co.), Das Lied von der Glocke (Holt & Co.); NICHOLS, Three German Tales (Holt & Co.); LESSING, Minna von Barnhelm (Cla endon Press); FREYTAG aus First Year.

Second Year. dem Staate Friedrichs des Grossen (Heath & Co.); prominence is given to written exercises, which include, in addition  $\infty$ the English-German Exercises in the Grammar, prose passages for translation into German from HORNING'S German Composition. Four hours a week.

Third Year.

Year.

3. BENEDIX, Die Hochzeitsreise; HEINE, White's selections from his poems (Heath & Co.); LESSING, Nathan der Weise; Translation of prose passages from English into German; Notes on the great names of German Literature from the middle of the 18th Century to our own day. Two hours a week.

Fourth 4.8

4. SCHILLER, Wilhelm Tell (Macmillan & Co.); EICHENDORFF, Aus. dem Leben eines Taugenichts (Heath & Co.); GOETHE, Götz von Berlichingen (Macmillan & Co.); Translation of prose passages from English into German; Notes on the great names of German Literature up to the middle of the 18th Century. Two hours a week.

**Honours**. Lectures in the Courses for Honours are given entirely in the German Language. They reproduce and extend the main elements 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 Honours, candidates must also be capable of speaking German fluently.

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

Third Year. 5a. A special study of GOETHE'S Faust (Part I.); GOETHE, Leiden des jungen Werther; Selections from HERDER'S Volkslieder; HAUPTMANN. Die versunkene Glocke; German Composition.

N.B.—The above constitutes the Additional course. See p. 18.

- 5b. LESSING, Emilia Galotti ; Extracts from FREYTAG'S Bilder aus der deutschen Vergangenheit; SCHILLER, Kabale und Liebe ; GERSTÆCKER, Germelshausen; KLEIST, Kätchen von Heilbronn. History of German Literature from the beginning of the Second Classical Period to our own day (KLUGE); German essay on a literary subject.
- 6a. LESSING, Laokoon; GRILLPARZER, Sappho; SCHILLER, Die Braut von Messina; German Composition.

N.B.-The above constitutes the Additional course. See p. 18.

6b. GOETHE, Se cond cante Oberon (S peter von Nibelunge to the begin man essay 6c. MIDDLE HIG dent a rea point out German at will be est as far as til Der arme VOGELWEI Four hour

## Professor:-D.

The course co literature, their ; affinity of roots, selected for trans tc Oriental man

1. Hebrew gran brew. May with the S Four hours

> Hebrew Synt tament. No Gemara). Two hours

2

3. Translation c particularly ARABIC, A Two hours

4a. HEBREW. G LENORMAN

Fourth Year. dition co assages for position.

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18.

6b. GOETHE, Sessenheim (Heath & Co.); KLOPSTOCK, Messias (second canto), as well as selections from his odes; WIELAND, Oberon (Selections); SUDERMANN, Die Ehre; SCHEFFEL, Trompeter von Säkkingen, as well as certain portions of Ekkehard; Nibelungenlied (ZARNCKE); History of German Literature up to the beginning of the Second Classical Period (KLUGE); German essay on a literary subject.

6c. MIDDLE HIGH GERMAN,—This course is intended to give the Student a reading knowledge of Middle High German, and to point out the philological relations between Middle High German and the modern idiom. The philology of the language will be especially studied. The following texts will be studied as far as time allows: Das Nibelungenlied; Kudrun; HARTMANN, Der arme Heinrich; WOLFRAM. Parzival; WALTHER VON DER VOGELWEIDE, Gedichte. Four hours a week.

## Semitic Languages.

Professor:-D. Coussirat, B.A., B.D., D.D., Officier d'Académie.

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 tc Oriental manners, customs, history, etc.

# Ordinary

- Hebrew grammar and translation. English rendered into Hebrew. Masoretic notes explained. The Hebrew text compared Year.
   with the Septuagint and Vulgate Versions. Four hours a week.
- Hebrew Syntax. Translation of difficult passages of the Old Testament. Notes on the MASSORA and the TALMUD (Mishna and Gemara).
   Two hours a week.
- 3. Translation continued. Characteristics of the Semitic Languages, Fourth particularly of ARAMAIC, SYRIAC, SAMARITAN, RABBINIC, Year. ARABIC, ASSYRIAN, SEMITIC INSCRIPTIONS. Two hours a week.
- 4a. HEBREW. Genesis. Isaiah, 40-66. Ecclesiastes. Literature.—F. Third LENORMANT, The beginnings of History.

4b. ARAMAIC,—Daniel. Ezra. Selections from the Targums. Literature.—SAVCE, Lectures on the Origin and Growth of Religion. Two hours a week.

Fourth Year.

- 5a. HEBREW.—Malachi, Psalms, 1-72; Job, 26-42. Literature.— RENAN. A general History of the Semitic Languages.
- 5b. SYRIAC.—Selections from the Peshito, and from the CHRONICLES OF BAR HEBRÆUS. Literature.—W. WRIGHT, Comparative Grammar of the Semitic Languages. Two hours a week.

4t and 5b. (Literature excepted) are the Additional Courses.

#### History.

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

#### Ordinary First Year.

r. 1. THE MAIN EPOCHS OF EUROPEAN HISTORY.

Twenty-five lectures will be given on the outlines of Classical, Mediaeval and Modern History, including colonial expansion since the 15th century. The design of this course is less to present a mass of facts than to illustrate the chief features of racial, political and social progress. At the Sessional Examination the results will be taken account of under the head of English. Short historical papers will be required at regular intervals from each student. (*Vide* English, I. p. 6.)

One hour a week.

2. THE GERMAN INROADS AND THE MIDDLE AGES. (Omitted in 1809-1900.)

Honours. Third and Fourth Years.

3. STUDIES IN THE HISTORY OF DEMOCRATIC INSTITUTIONS DUR-ING THE MIDDLE AGES. (Omitted in 1809-1000.)

4. THE RENASCENCE AND THE REFORMATION.

Five hours a week.

The chronological limits of this course are 1350-1648. Beginning with Petrarch, the rise and character of Italian Humanism will be traced in some detail. Attention will then be chiefly fixed upon the countries of Northern Europe, although the part of Spain and Italy in the Counter Reformation will be discussed. The Lutheran schism will be regarded, not in isolation, but in the light of literary studi's and 16th century politics. The spread of Protestant sects will be followed out, and the tury will receive intercourse during the Rhine will be Besides following original texts and opening of the s

> 5. THE FRENCH (Omitted in

Students who a of the University either the first or I. HERODOTUS, I-65, VI., V trans.; PLU1 and Timole burgh's tran TACITUS, A Brodribb's

> II. CLARENDON, Decline and Reflections Chap. III.; BAGEHOT, T Introduction LORD ACTO Review, Vo Religious S

## Me

Profes Lectur

1. This course t gy, in the seconamong other work and to JEVONS, El-Three hours a w argums. Literath of Religion.

Literature. guages.

e CHRONICLES Comparative

urses.

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of Classical, ansion since to present a tial, political results will rt historical dent. (Vide

MONS DUR-

Beginning m will be upon the and Italy an schism ry studies ill be followed out, and the culture of Northern Europe during the 15th 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.

Besides following the lectures, students are expected to read certain original texts and modern works. These will be indicated at the opening of the session.

5. THE FRENCH REVOLUTION, 1789-95. (Omitted in 1899-1900.)

### 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-65, VI., VII., Jowett's trans.; PLATO, the Republic, Jowett's trans.; PLUTARCH, The Lives of Aristides, Themistocles, Pericies and Timoleon, Clough's trans.; POLYBIUS, I., II., V., Shuckburgh's trans.; LIVY, XXI.-XXII., Church & Brodribb's trans.; TACITUS, 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. 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.

> Ordinary Second Year.

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. Third Year. 2. In the first term the course takes up the Logic of Induction. Student: 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 of 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. I. Students are also required to write an essay on some philosophical subject.

Two hours a week.

#### Fourth Year.

3. 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.

Honours Third Year.

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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 Philosophy 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.

The subjects of examination will be, in addition to the lectures, the following:---

Part I.—Schwegler's History of Philosophy, Chapters 1-21 inclusive; Mill's System of Logic, Books IV. and V.; James' Principles of Psychology. Chapters 10-16 inclusive; selected portions from Thomson's Outline of the Laws of Thought, from Jevons' Princip'es of Science, and from Venn's Empirical Logic. A Lectures, i Part II.—Plato's from Berk

5. The lecture to the earlier p transition from 1 account of the E Hobbes, and de tendency of spec movements:—the Platomsts, and c ated by Leibnitz which culminate exposition of K. First term, two

6. The other Hartley to Herb teristics of Engl years, more part logists and polit special attention ERASMUS DARWI Political and BENTHAM, MALT whose work ma general moveme is specially reco pointed selection consult LESLIE S teenth Century, : The principal pe character of the the practical, util Second term; Students are « dent study of or The subjects ( Part I.-Erdman James' Pri Principles; of Philosoj c of Induction. gic, Book III.

nteresting proas possible, the e general proin view of the lity. Students ok of Psychowrite an essay

losophy, and in Murray's write essays

Greek Philoich philosof the Greeks enian period, when Philoal life in the vhich Philoof the great 'ose towards unt is given id by which tal thought. Schools in : also given ur Course. e fragments embodying

le lectures,

inclusive; Principles portions ght, from Empirical Logic. Any two of these subjects, along with the Honour Lectures, may be taken as the Additional Course.

Part II.—Plato's Theatetus (by S. W. Dyde); Fras r's Se'ections from Berkeley.

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 Platomsts, 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 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 psychology and metaphysics, and the practical, utilitarian view 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 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

Fourth Year.

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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.

## Mathematical and Physical Sciences.

### (Ordinary Courses.)

Professors :- A. Johnson, M.A., LL.D. (Mathematics and Astronomv). "

John Cox, M.A. (Physics). 66

E. Rutherford, M.A. (Physics).

Lecturer.- Rev. H. M. Tory, M.A. (Mathematics)

Demonstrators in Physics:-F. H. Pitcher, B.A.Sc.; R. O. King, B.A.Sc.; R. K. McClung, B.A.; J. W. Fraser, B.Sc.

# Ordinary

First Year. 1. MATHEMATICS-Arithmetic.-Euclid, Books, 1, 2, 3, 4, 6 (omitting propositions 27, 28, 29), with definitions of Book 5, TODHUNTERS edition, or HALL and STEVENS; the latter is recommended to students in advanced sections especially .--COLENSO'S Algebra (Part I.) to end of Quadratic Equations. or HALL AND KNIGHT'S Elementary Algebra.-GALBRAITH AND HAUGHTON, Plane Trigonometry. Nature and use of Logarithms.

Four hours a week.

# Ordinary

2. PHYSICS .- This course has two objects:- (1) to give the mini-First Year mum acquaintance with Physical Science requisite for a liberal education to those whose studies will be mainly literary; (2) to be introductory to the courses in Chemistry and other branches of Natural Science, and to the more detailed courses in Physics in the Third and Fourth Years. Only the most important principles in each branch of the subject will be treated, as far as possible with reference to their historical development and mutual relations; and they will receive concrete illustration in the study of the principal instruments in daily use in the laboratory. Two illustrated lectures will be given per week. During the session each student will be required to attend in the laboratory eight times, and make measurements involving the use of the following instruments :---Balance, Pendulum, Barometer, Thermometer, Sonometer, Spherical Mirror or Lens, Tangent Galvanometer, Wheatstone's Bridge.

> Outline of Syllabus. The scope and method of Science, Primary Phenomena ("States and Properties of Matter"), Motion, Velocity,



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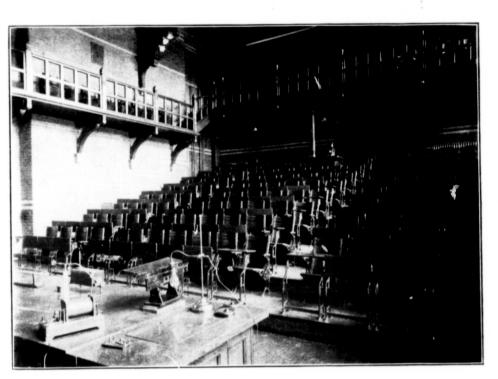
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Primary Velocity,



Macdonald Physics Building A Lecture Theatre.



Macdonald Physics Building An Elementary Electrical Laboratory

Acceleration, I Parallelogram Simple Machin lum. Fluid Pr of Mechanics, in The missing Intensity, Pitch and Organ Pip (2.) Heat. T Fusion and Va Mechanical Equ Radiation to co (3). Light. Re Lens, Microsco of Interference a (4). Electricity Induction Mach idea of Potentia tricity, Magnetic pass and Terres and Storage Co Batteries. Ohm ince, Electromo ors and Magne Dectro-magnet. no. Application ower Conclusion.-Re complete forn Two hours a MATHEMATICS tion, and Notation; Determinar (Euclid, Bl ent):-Sph angles with

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> and formul Text book Solid Geon

DYNAMICS.—P and Compo Three hour Acceleration, Laws of Motion, Momentum, Energy, Work. The Parallelogram Law for Velocities and Forces, Equilibrium and the Simple Machines. Uniform circular motion, Vibration, the Pendulum. Fluid Pressure, the Barometer, Specific Gravity. Summary of *Mechanics*, indicating the principle of the Conservation of Fnergy.

The missing Energy traced in (1) Sound. Nature of wave Motion. Intensity, Pitch and Quality of Musical notes, The stretched String and Organ Pipe. Resonance.

(2.) Heat. Temperature and the Thermometer. The Calorimeter, Fusion and Vaporisation. Laws of Boyle and Gay-Lussac. The Mechanical Equivalent. Application of Conduction, Convection and Radiation to common problems of Climate, Ventilation, etc.

(3). Light. Reflection, Refraction, the Spherical Mirror, Prism, Lens, Microscope, Telescope, Spectroscope, Polariscope. Principle of Interference and sketch of the Undulatory Theory.

(4). Electricity and Magnetism. The Electrophorus, the Modern Induction Machine, the Condenser. Coulomb's Law of Force. The idea of Potential. The Quadrant Electrometer. Atmospheric Electricity, Magnetic Pole, Moment, Field, and Law of Force. The Compass and Terrestrial Magnetism. Effects of Current. The Voltameter and Storage Cell. The Galvanometer. Heating Effects. Simple Batteries. Ohm's Law. Units and Measurement of Current, Resistince, Electromotive Force, Mutual Mechanical Effects of Conducors and Magnetic Fields. Principle of the Electric Motor. The Electro-magnet. Induction of Currents, and Principle of the Dynano. Applications to Telegraph, Telephone, Lighting, and supply of lower

Conclusion.—Restatement of Principle of Conservation of Energy complete form. Description of Energy.

Two hours a week.

MATHEMATICS.—Algebra.—The three Progressions: Ratio, Proportion, and Variation; Permutation and Combination; Scales of Notation; Logarithms; Interest and Annuities; Elements of Determinants; Geometrical Conic Sections—Solid Geometry (Euclid, Bk. XI. and first two props. of Bk. XII., or equivalent):—Spherical Trigonometry (Solution of Spherical Triangles with proofs of the necessary preliminary propositions and formulae).

Text books:-HALL AND KNIGHT'S Higher Algebra; WILSON'S Solid Geometry and Conic Sections.

DYNAMICS.—Projectiles; Impact; Simple Harmonic Motion; Simple and Compound Pendulum; Energy of Rotation. Three hours a week. Second Year.

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Th ird Year.	4. MECHANICS AND HYDROSTATICS.— <i>Text-book</i> , LONEY, Mechanics and Hydrostatics for Beginners. Two hours a week to January.	9. MAGNET of a l and minati Electr
Third Year.	4. (a) OPTICS; Text-book, GALBRAITH and HAUGHTON. Two hours a week from January to end of Session.	measu tromo
Third Year.	<ul> <li>4. (b) (Optional, but open to those only who have studied Mathematical Physics). — ASTRONOMY — LOCIVER, Elementary Astronomy, (English Edition); first five chapters, viz.: The Stars and Nebulae; The Sun; The Sole for stem; Apparent movements; Time. Students are recommendated to use with this an "Easy Guide to the Constellations" (ALL. This subject is taken with Optics.</li> <li>Hours to be arranged.</li> </ul>	Electr netic Text N.B.—For Ac ing Students and dar, Faculty of A
Fourth Year.	5. ASTRONOMY.—(Optional.) GALBRAITH and HAUGHTON'S Astrono- my or Brinkley by Stubbs and Brunnow.—The subject is taken with Optics as one course. The lectures will be given	Math
Third Year.	<ul> <li>before Christmas.</li> <li>First term; two hours a week.</li> <li>6. EXPERIMENTAL PHYSICS.—(<i>First Course</i>).—Laws of Energy, SOUND, LIGHT AND HEAT. <i>Text-book</i>, GANOT or JONES, Lectures fully illustrated.</li> </ul>	Hone 2. Mathematic: Euclid; HA BURNSIDE Two or th
Fourth Year	<ul> <li>Two hours a week.</li> <li>7. EXPERIMENTAL PHYSICS.—(Second Course.)—ELECTRICITY AND MAGNETISM. Text-book, GANOT OR S. P. THOMPSON. Lectures fully illustrated.</li> <li>Two hours a week.</li> <li>LABORATORY COURSES.—In Experimental Physics, requiring three hours per week to be spent in practical measurements in the Macdonald Physical Laboratory, during the Third and Fourth Years, in conjunction with the Lecture courses 5 and 6.</li> </ul>	<ul> <li>6. MATHEMATICS and PREST Conic Sect sive; WILL course). Three hout</li> <li>7. MATHEMATICA chapters); 8 inclusive</li> </ul>
Third Year.	8. (a) SOUNDVelocity of Sound; Determination of rates of vibration of Tuning Forks; Resonance; Laws of vibration of strings.	I, 2, 3, 7; ] Two hours
	<ul> <li>(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.</li> </ul>	8. MATHEMATIC: and Bool Geometry Astronom Two hours Experimen
	(c) HEAT.—Construction and Calibration of Thermometers; Melting and Boiling Points; Air Thermometer; Expan- sion of solids, liquids and gases; Calorimetry.	* Honours #

### Mechanics

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1.

Mathematical Astronomy. : Stars and movements; is an "Easy ject is taken

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Refraction: Magnifying icroscopes; Diffraction

mometers; r; ExpanMAGNETISM.-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 Current Electricity .-- Complete course of Electricity. 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 of Applied Science.

## Mathematical and Physical Sciences.

### Honour Courses and Advanced Sections.

2. MATHEMATICS .- HALL and STEVENS, Euclid; CASEY, Sequel to Euclid; HALL and KNIGHT, Advanced Algebra; TODHUNTER OF First Year. BURNSIDE and PANTON, Theory of Equations (selected course). Two or three hours each week.

6. MATHEMATICS.-LOCK, Higher Trigonometry, with McClelland and PRESTON, Spherical Trigonometry, Part I.; SALMON, Conic Sections, chapters I, 2, 3, 5, 6, 7, and 10 to 13 inclusive; WILLIAMSON, Differential and Integral Calculus (selected course).

Three hours a week.

- 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. I, 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 6 and 8.

\* Honours may be awarded in the Advanced Sections (see p. 14) F

Advanced\* Sections

Second Year.

Honour Courses.

> Third Year.

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Fourth Year.

Honour Courses.

> Fourth Year.

9.

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, Lunar Theory; or CHEYNE, Planetary Theory; or the Theory of the Tides; NEWTON, Principia, Lib. I., secs. 9 and 11, 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, Hydro-Mechanics; PRESTON, Theory of Light; CUMMING Theory of Electricity.

EXPERIMENTAL PHYSICS.—Courses 7 and 9.

### Chemistry.

Professors:-B. J. Harrington, M.A., Ph.D., LL.D. "J. Wallace Walker, M.A., Ph.D. Lecturer: Nevil Norton Evans, M.A.Sc.

Demonstrator: Alexander Brodie, B.A.Sc.

I. GENERAL CHEMISTRY.—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.

*Text-book.*—REMSEN'S Introduction to the Study of Chemistry.

- Three hours a week.
- I ELEMENTARY PRACTICAL CHEMISTRY.—This course is compulsory for all undergraduates taking the above course of lectures. The work includes experiments illustrative of the Laws of Chemical Combination, the preparation of Pure Chemical Compounds, and elementary Qualitative Analysis. Six hours a week.

Third Year.

Second

Year.

2. INORGANIC CHEMISTRY.—The Chemistry of the Electro-positive Elements and their principal compounds.

Two hours a week during the first term.

3. ELEMENTARY ORGANIC CHEMISTRY.—An elementary course of lectures on Organic Chemistry for Biological Students and for students intending to take Organic Chemistry in the Fourth Year.

Two hours a week during the second term.

4. ADVANCED PRACTICAL CHEMISTRY.—Laboratory practice in methods of gravimetric, volumetric and electrolytic Quantitative Analysis.

NOTE.-The O Term for Biolog knowledge of the 5. Organic Ch ganic Chen Calculation Polymerisn the more i Series of c Faculty wo Two hou 6. PRACTICAL O paration an tions of Me 7. PHYSICAL CH divided inte of such phy known to Chemistry devoted to the applicat 8 PRACTICAL P the various of gases an of densities rotations; a electro-chen 9. MINERAL AN. advanced q tution of m

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ice in me-Juantitative NOTE.—The Organic Laboratory will be open during the Second Term for Biological Students who desire to obtain an elementary knowledge of the methods employed in preparing organic substances.

5. ORGANIC CHEMISTRY.—A systematic course of lectures on Organic Chemistry, including the Analysis of Organic Substances, Calculation of Formulae, Determination of Molecular Weights, Polymerism, Isomerism, etc, followed by a discussion of the more important derivatives of the Fatty and Aromatic Series of compounds. Students intending to enter the Medical Faculty would find this course of great advantage.

Two hours a week.

- 6. PRACTICAL ORGANIC CHEMISTRY.—A complete course on the preparation and analysis of Organic Substances, with determinations of Molecular Weights, &c.
- 7. PHYSICAL CHEMISTRY.—The lectures on Physical Chemistry are divided into two parts. In the first term they include a study of such physical properties of gases, liquids and solids as are known to depend upon their chemical constitution, Thermo-Chemistry and the Law of Mass Action. The second term is devoted to Electro-chemistry. The lectures will be based upon the application of the gaseous laws to solutions.
- 8 PRACTICAL PHYSICAL CHEMISTRY.—Laboratory work will include the various methods of determining the Molecular Weights of gases and of substances in solution, accurate measurements of densities, refractive indices, surface tensions, and specific rotations; also examples of chemical statics and kinetics, and electro-chemical measurements.
- MINERAL ANALYSIS.—A course of laboratory work comprising advanced quantitative analysis and investigation of the constitution of mineral species.

## Mineralogy.

Professor:-B. J. Harrington, M.A., Ph.D.

Honours

- MINERALOGY.—Lectures and illustrations demonstrated by models Third Year and specimens in the Peter Redpath Museum and the Macdonald Chemistry and Mining Building. 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. MINERALOGY (In continuation of No. 1.).—Description of species, particular attention being paid to those which are

Fourth Year

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Fourth Year. Third Year

Second

Year.

Elementary

Biology.

important as rock constituents and to the economic minerals of Canada.

First term, two hours a week.

DETERMINATIVE MINERALOGY.—Laboratory practice in blowpipe analysis and its application to the determination of mineral species. This work is carried on in the new laboratory provided for the purpose in the Chemistry and Mining Building. Thursday, 2 to 5 p.m.

## Elementary Biology

### Profs. Penhallow and MacBride.

The following course in Elementary Biology, while open to all Students in Arts, is designed to prepare for special study in Zoology Botany, and Medical Subjects, and especially to meet the requirements of those who may contemplate taking the Six Years' Course in Arts and Medicine. The Course, under the supervision of the professors of Botany and Zoology, will be given during the autumn term,—Zoology first eight weeks; Botany last four weeks.

NOTE.—The Faculty of Medicine strongly recommends all Students who are unable to take the Six Years' Course to devote at least one year of preliminary study to Biology, Physics and Chemistry before entering on their professional studies.

### 1a.—Animal Biology.

The Course in Animal Biology will discuss the fundamental properties of protoplasm; the principles of the formation of tissues; the formation of organs; an outline of vertebrate structure and function, as exemplified by the types Amoeba, Paramecium and Vorticella, Hydra, Lumbricus and the Dog-fish.

Two lectures and one laboratory period each week.

### 1b.—Plant Biology.

The Course in Plant Biology will deal chiefly with the general properties of cytoplasm; the structure and nature of the plant cell; movement; nutrition: respiration; fixation of carbon; division of labor and origin of organs; evolution of plant forms. These principles will be illustrated in their more simple forms by a Myxomycete, Pleurococcus, Spirogyra and Oedogonium, Fucus, Anthoceros and Pteris.

Two lectures and one demonstration each week.

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I. HISTOLOGY.-General M tended kn logy. It

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# Botany.

Professor - D. P. Penhallow, B.Sc., M.A.Sc. Lecturer :- C. M. Derick, M.A.

Ordinary

 HISTOLOGY.—This course, open only to students who have taken Third Year General Morphology for 1898-99, is designed to give an extended knowledge of vegetable anatomy and special morphology. 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.

Botanical Microtechnique (Zimmermann, trans. by Hum-phrey.)

Six hours a week.

Honours. Fourth Year.

(b) A course in Special Morphology, forming a part of the Honour Course in Biology, and open to students who have satisfactorily completed Botany I and 2a, of which latter it is a continuation. It includes critical studies of the structure and development of the Thallophyta, Bryophyta and Pteridophyta, together with special readings on Biological problems. The following types will be studied:—A Myxomycete, Bacteria, Chroococcus, Nostoc, Rivularia, Spirogyra Pleurococcus, Oedogonium, Vaucheria, Fucus, Nemalion, Rhizopus, Penicillium, Puccinia, Agaricus, Pellia, Polytrichum, Pteris, Equisetum. Lycopodium, Selaginella. Comparisons with other forms in each group will also be made.

This course, when taken separately, ranks as an ordinary subject.

Six hours a week.

### Zoology.

Professor :--Ernest William MacBride, M. A., B.Sc. Demonstrator:--F. Slater Jackson.

I. ELEMENTARY ZOOLOGY.—This course is designed to make the student thoroughly acquainted with the main types of structure met with in the animal kingdom, and with the principles on which the modern science of Zoology is founded. It com-



prises a study both theoretical and practical of the following types, viz.: Amoeba, Vorticella, Hydra, Craspedote Medusa, Alcyonium, Lumbricus, Nereis, Cambarus, Cyclops, Limulus, Periplaneta, Asterias, Echinus, Unio, Buccinum, Amphioxus, Mustelus, Rana and Lepus.

Six hours a week.

Honours. 2. Advanced Zoology.—This course, open only to students who have acquitted themselves creditably in the Third Year Examination in Zoology, forms part of the course for Honours in Biology. It comprises a study, theoretical and practical, of a number of additional types; a comparative study of the principal forms of development met with in the animal kingdom, and a special knowledge of vertebrate embryology. Attention will also be given to the general problems of philosophical zoology, especially such as are engaging the attention of zoologists at the present time.

> This course, when taken separately, ranks as an ordinary subject.

Six hours a week.

N.B.-Both these courses include two formal lectures, and two periods of laboratory instruction in the week. Under no circumstances will a student be allowed to attend the lectures without taking practical work.

The fee for the Session in each of the above courses is \$10.

Note-The Zoological Laboratory will be very considerably extended, both as to accommodation and equipment, before the opening of the session of 1899-1900.

It is contemplated having a separate small laboratory, with microtomes, etc., for advanced work, and a large elementary laboratory capable of accommodating 80 students.

## Geology and Palæontology.

Professor:-Frank D. Adams, M.A.Sc., Ph.D. Demonstrator:-Osmond E. Leroy, B. A.

1. GENERAL GEOLOGY.—The lectures will embrace a general survey of the whole field of Geology, and will be introduced by a short course on Mineralogy. Especial attention will be devoted to Dynamical Geology and to Historical Geology, includ-

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> 2. Petrograph graphy are of rocks is One lect a week thr scopical we Text Boo Books of graphie, an

3. PALÆONTOLO I, with spe of fossils. One lecti station a Museum. Books of Palaeontolo

4 PRACTICAL A methods en concluding occurrence One lectu Text-books Deposits of

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neral survey duced by a will be deogy, includ87

ing a description of the fauna and flora of the earth during the successive periods of its past history.

The lectures will be illustrated by the extensive collections in the Peter Redpath Museum, as well as by models, maps, sections and lantern views. There will be an excursion every Saturday until the snow falls, after which the excursion will be replaced by a demonstration in the Museum.

Text-book.—DAWSON, Hand-book of Geology. Books of Reference.—DANA, Manual of Geology; Scott, An Introduction to Geology.

Three hours a week throughout the year, with additional excursions and demonstrations as above stated.

> Honours. Fourth Year.

 PETROGRAPHY.—The modern methods of study employed in Petrography are first described, and the classification and description of rocks is then taken up.

One lecture a week during the first term. One afternoon a week throughout the year will be devoted to special microscopical work in the Petrographical Laboratory.

Text Book.-Harker, Petrology for Students.

Books of Reference.—ROSENBUSCH, Mikroskopische Physiographie, and FUTLEY, Rock-forming Minerals.

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

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

Books of Reference.—NICHOLSON and LYDEKKER, Manual of Palaeontology; ZITTEL, Text-Book of Palaeontology.

**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 or demonstration a week throughout the year.

- Text-books.—GEIKIE, Outlines of Field Geology; КЕМР, Ore • Deposits of the United States. PHILLIPS and LOUIS, A Treatise on Ore Deposits.
- 5 CANADIAN GEOLOGY.—A general description of the Geology and Mineral Resources of the Dominion. One lecture a week during the second term.

Fourth Year.

Fourth

Year.

Text-book.-DAWSON, Hank-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.

A large amount of 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.

### 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 hours to be arranged.

### Elocution.

### Instructor:-J. P. Stephen.

Instruction is given in this subject at such hours as may be arranged at the beginning of the session. Medical Examin

The classes w be announced a steed Silver and are offered for to students who sessions,—the si latter. (See Re

## LECTURES

Hours.	Monday.
9	Mathematics.
10	Latin.
11	French.
12	Physics.
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9	French.
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11	Mathematics.
11	Mathematics. English.
12	English.

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# 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 Wicksteed 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.

SESSION	1899-1900.

Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Mathematics.	Mathematics.	Mathematics.	Greek.	Mathematics.	
10	Latin.	Greek.	Latin.	French.	Greek.	
11	French.	German.	German.	German.	English.	
12	Physics.	French.	English.	Latin.	Physics.	1
2	Greek.	English.	French.		Latin.	
3					German.	
9	French.	Logic.	English.	German. Hebrew,	German. Hebrew.	SATURDAY.
10	Greek.	German. Hebrew.	French.	Logic.	Mathematics	Elem. Biology Zoology. (b) Botany. Lab (
11	Mathematics.	Chemistry.	Latin.	Latin.	Greek.	
12	English.	Greek.	Chemistry.	English.	Chemistry.	
2 .	Latin.	French.	Logic.	Greek.	Latin.	1
3	German. Hebrew.	Elem ntary.	Dynamics. Elem. Biology. Zool.(b), Bot. (c)	French.	Elem.Biology. Zool. Lab. (b)	
4	Elem. Biol. Botany.(c)	Biology (Lab.)				

YEARS	HOURS.	MONDAY.	TUESDAY.	WEDNESDAY,	THURSDAY.	FRIDAY.	SATURE
	9	English.	Greek Phys. Hebrew			German.	
	10	Chaldee.	French.	Math. Physics. Chaldee.	French. Chemistry.	Rhetoric.	
AR.	11	Metaphysics.	Zoology.	Metaphysics.	Zoology.	Math.Physics	
THIRD YEAR.	12	Latin,	Exp. Physics.	Greek.	Exp. Physics. Hebrew.	Latin.	
	2	Pract. Chem.	Botany.	Pract. Chem. Pract. Zool.		Botany.	
	3		German.	Pract. Zool.		-	
	4						
	9	Exp. Physics.	Astronomy (a)	Geology. Syriac.	Exp. Physics.	Latin. German.	SATURD
	10	Geology. Syriac.	French. Latin.	Latin.	English Lit.	Geology.	
EAR.	11	Greek.	Moral Phil.	Greek.	Moral Phil.	French.	
FOURTH YEAR.	12	Moral Phil.	Organic Chem	Miner, Demons.	Hebrew. Astronomy (a).		
	2	Pract. Chem. Zoology.	Botany.	Pract. Chem. Zoology.	Pract. Chem.	Botany.	
	3		German.				
	4						

TIME TABLE. - Continued.

Advanced Sections will be formed in all subjects in the first two years, so far as practicable and in these Honours may be awarded. In Greek, Latin, English and Mathematics there are Advanced Sections in the First and Second 'Years, 2 hours a week. (a) During First Term, (b) during First 8 weeks, (c) during last four weeks of First Term, Honour Courses (Third and Fourth Years) will be given in the following subjects, the precise hours for which will be arranged to suit the convenience of the classes :--CLASSICS: Third and Fourth Years, 6 hours a week. ENGLISH: Third Year, 6 hours a week; Fourth Year, 4 hours a week. FRENCH: Third Year, 4 hours a week; Fourth Year, 4 hours a week. GERMAN: Third Year, and Fourth Year, 4 hours a week. SEMITIC LANGUAGES: Third Year, 2 hours a week; Fourth Year, 2 hours a week. MISTORY: Third and Fourth Years, 5 hours a week. MENTAL AND MORAL PHILOSOPHY: Third Year, 2 hours a week; Fourth Year, 2 hours a week,

a week. MATHEMATICS, MATHEMATICAL PHYSICS AND ASTRONOMY : Third Year, 4 hours a week ;

MATHEMATICS, MATHEMATICAL FRISTISS AND ASTRONOMY. FINITE FOR, 4 HOURS a week. Fourth Year, 4 hours a week. GBOLOGY AND MINERALOGY: Third Year, 4 hours a week (First Term); 5 hours a week (Second Term); Fourth Year, 7 hours a week. BIOLOGY: 4 hours a week and 4 periods of Practical Work.

BIOLOGY : 4 hours a week and 4 periods of Practical Work. The CHEMICAL LABORATORIES are open every day (except Saturday) from 9 a.m. to 5 p.m. The Lectures on Chemistry and Laboratory classes are all open to Arts Students. PRACTICAL PHYSICS: Third Year, Monday, 10 a.m. to 1 p.m., or Friday, 2.30 p.m. to 5.30 p.m.; Fourth Year, Wednesday, 2.30 p.m. to 5.30 p.m. The BOTANICAL LABORATORIES are open daily from 9 a.m. to 5 p.m. GEOLOGY: Demonstrations and Excursions on Saturday. The Petrographical Laboratory is open every day throughout the Second Term. THE ZOOLOGICAL LABORATORY is open daily from 9 a.m. to 7 p.m. and from 2 p.m. to 5.7 p.m., Practical Work under the supervision of the Professor and Demonstrator, Wednesday, 2 to 4 p.m., and Saturday, 9 to 12 a.m. The time for Practical Work in the Fourth Year will be arranged. N B.-The keurs in this table are subject to alteration during the Session.

FRIDAY.	SATURD
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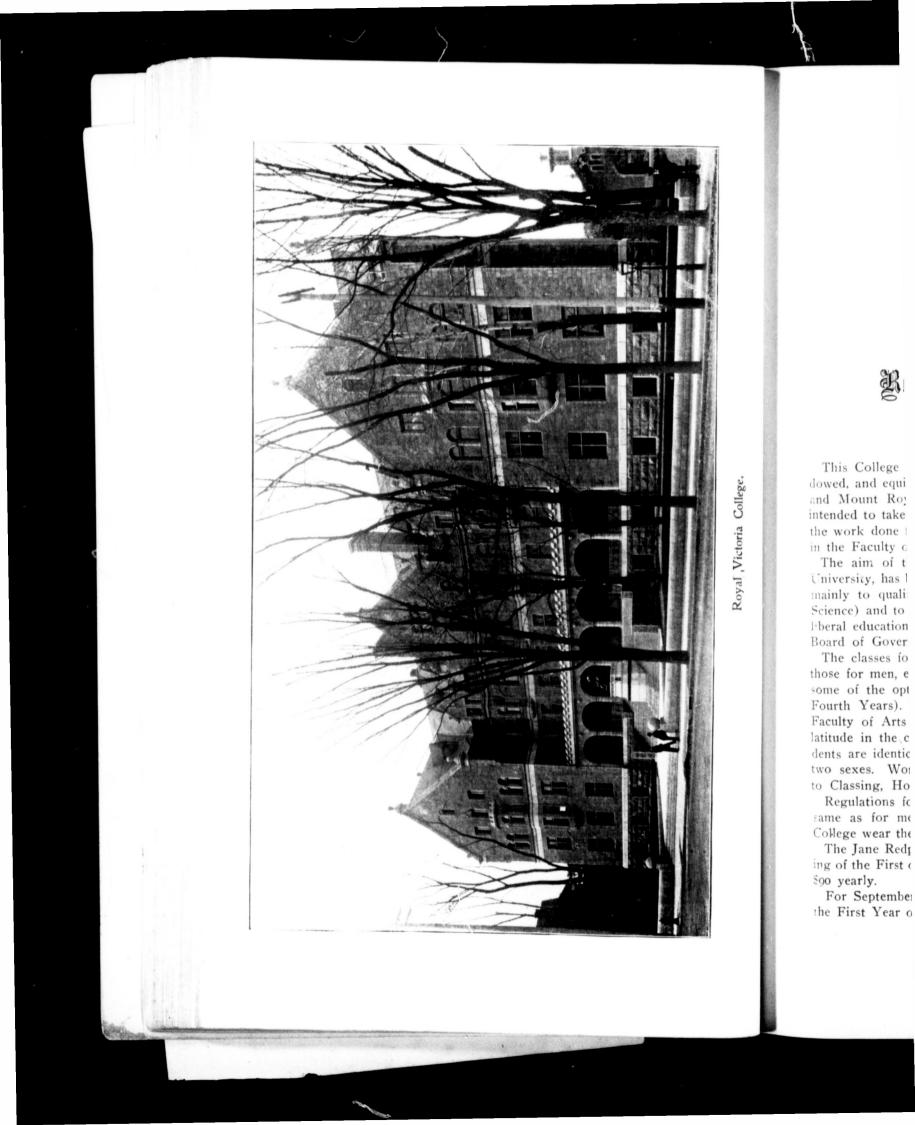
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, 2.30 p.m. to

Laboratory is

rom 2 p.m. to Wednesday, Fourth Year

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# Royal Victoria College.

This College will be opened in September. It has been built, endowed, and equipped by the Right Honourable The Lord Strathcona and Mount Royal, G.C.M.G., Chancellor of the University, and is intended to take up and continue, under greatly improved conditions, the work done for so many years in the Special Course for Women in the Faculty of Arts ("Donalda" endowment).

The aim of the College, which is now a constituent part of McGill University, has been defined as "the higher education of women; an 1 mainly to qualify women to take degrees in Arts (including Pure Science) and to provide them with instruction in those branches of a Eberal education necessary thereto, and in such other subjects as the Board of Governors may from time to time determine."

The classes for women will continue to be wholly separate from those for men, except classes for Candidates for Honours (including some of the optional courses and certain courses in the Third and Fourth Years). While the conditions of the new curriculum in the Faculty of Arts permit to women, as also to men, a considerable latitude in the choice of subjects, the examinations for women students are identical with those for men, in all studies common to the two sexes. Women have the same privileges as men with regard to Classing, Honours, Prizes, and Medals.

Regulations for Examinations, Attendance, Conduct, etc., are the same as for men. Undergraduate-Students of the Royal Victoria College wear the academic dress; others do not.

The Jane Redpath Exhibition is open for competition, at the begining of the First or Second year, to both men and women; value, about \$90 yearly.

For September, 1899, there are (besides other Exhibitions open to the First Year only, both men and women) Two "Donalda" Exhibi-

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tions open to women only; value \$100 and \$120 yearly. For subjects, see pp. 9-11.

Reference is made to the Announcement of the Faculty of Arts for regulations as to Matriculation, Course of study for the Degree of B.A., or B.Sc., Honours Courses, etc. The fee for tuition in the Royal Victoria College is the same as that at McGill, viz., Sixty dollars (see pp. 34-36). Students who desire to reside in College will pay an inclusive fee (Board, Residence, Tuition), the amount of which will vary according to the accommodation selected; for further information apply to the Secretary, McGill College.

# ROYAL VICTORIA COLLEGE.

				,						
YEARS	Hours.	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAL	9	Astronomy (a)	
	9	Greek.	Physics.	French.	Greek.	Greek.		10	French.	
	10	English.	English.	Greek.		Mathematics.	A.R.	11		
FIRST YEAR.	11	German.	Mathematics.	Latin.	English.	French.	E	12	Geology.	
	12	Latin.	Latin.	Mathematics.	German.	Latin.		2	Zeology.	
	2	Mathematics.	French.	German.	French.	German.		3		
	3				Physics.			4		
	9	Latin.	Greek.	French.	Latin.	English.	Elem. Zool. Bot. Lab. (t)	cable	Advanced Section and in these Ho Advanced Section	
	10	German.	Chemistry.	Math.	English.	Latin.	Elem. Biol. Zool. (b)	(a) During First Te Honour Courses (T hours for which will be		
EAR.	11	English.	French.	Greek.	Mathematics.	German.			CLASSICS: Third ENGLISH : Third FRENCH : Third GERMAN : Third	
SECOND YEAR.	12	Logic.	Logic.	Latin.	German.	French.		wee	HISTORY: Third MENTAL AND MO	
SECO	2	French.	Dynamics. Elem. biol.	Chem.	Logic.	Chem.		Fou	MATHEMATICS, M rth Year, 4 hours Geology AND N	
	3	Greek.	Elem. Biol. Zool. Lab. (&)	German.	Greek.	Elem. Biol. Zool, Lab.(b)		(Se	Cond Term); Fou Biology: 4 hou THE CHEMICAL	
	4			Elem. Biol. Botany (c)	Elem. Biol. Bot. Lab. (c)			5+3	PRACTICAL PHY p.m.; Fourth Yo THE BOTANICAL GEOLOGY: Den	
	5	Elem. Biol. Botany (c)							THE ZOOLOGICA m. Practical W	

2 p.m. to 4 p.m., and Sa will be arranged. N.B.— The hours in

MONDAY.

Latin.

French.

English.

Metaphysics.

German.

HOURS.

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TIME TABLE, SESSION 1899-1900.

<b>FRARS</b>	Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAV.	SATURD
	9	Latin.	German.	German. Greek.			
	10		Exp. Physics.		Greek. Exp. Physics.	French.	
AR	11	French.	Rhetoric.		Math, Phys.	Latin.	
AN UN	12	English.	Zoology.		Zoology.	Math. Phys.	
THU	2		Botany.	Pract, Zool.		Bo'any.	
	3	Metaphysics.		Metaphysics. Pract, Zool.			
	4	German.					
	9	Astronomy (a)	German.	German.	Moral Phil.	Geology.	
	10	French.	Exp. Physics. Greek.	Geology.	Exp. Physics.	French.	
AR.	11		Latin.	English Lit.	Math. Phys.	Latin. Astronomy(a)	
POURTH YEAR	12	Geology.	Moral Phil.	Mineralogy (a) Moral Phil.	Greek.	Math. Phys.	
LOOK	z	Zeology.	Botany.		Zoology.	Botany.	
	3						
	4				German.		

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(a) During First Term, (b) during First 8 weeks, (c) during last 4 weeks of First Term. Honour Courses (Third and Fourth Years) will be given in the following subjects, the precise hours for which will be arranged to suit the convenience of the classes.
CLASSICS: Third and Fourth Years, 6 hours a week.
ENGLISH: Third Year, 6 hours a week; Fourth Year, 6 hours a week.
FRENCH: Third Year, 4 hours a week; Fourth Year, 4 hours a week.
GLEMMAN: Third Year and Fourth Years, 5 hours a week.
HISTORY: Third and Fourth Years, 5 hours a week.
MENTAL AND MORAL PHILOSOPHY: Third Year, 2 hours a week; Fourth Year, 2 hours a week.

Week, MATHEMATICS, MATHEMATICAL PHYSICS AND ASTRONOMY : Third Year, 4 hours a week ;

Fourth Year, 4 hours a week. GEOLOGY AND MINERALOGY: Third Year, 4 hours a week (First Term); 5 hours a week; (Second Term); Fourth Year, 7 hours a week. BIOLOGY: 4 hours a week and 4 periods of Practical Work. BIOLOGY: 4 hours a week and 4 periods of Practical Work.

THE CHEMICAL LABORATORIES are open every day (except Saturday) from 9 a.m. to 5 p.m. PRACTICAL PHYSICS: Third Year, Monday, 10 a.m. to 1 p.m., or Friday, 2.30 p.m. to 5.30 p.m.; Fourth Year, Wednesday, 2.30 p.m. to 5.30 p.m. THE BOTANICAL LABORATORIES are open daily from 9 a.m. to 5 p.m. GEOLOGY: Demonstrations and Excursions on Saturday. The Petrographical Laboratory is open every day throughout the Second Term

Subject Performance Excursions on Saturday. The Perfographical Laboratory is open every day throughout the Second Term. THE ZOCLOGICAL LABORATORY is open daily from 9 a.m. to 1 p.m. and from 2 p.m. to 5 p.m. Practical Work under the supervision of the Professor and Demonstrator, Wednesday, 2 p.m. to 4 p.m., and Saturday, 9 to 12 a.m. The time for Practical Work in the Fourth Year will be arranged.

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

# FACULTY OF APPLIED SCIENCE.

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DATES OF

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### FACULTY OF APPLIED SCIENCE.

# DATES OF EXAMINATIONS AND COMMENCEMENT OF LECTURES.

The matriculation examinations will be held as follows :--

Latin. Thursday, September 14th, 9 a.m.

Mathematics, Friday, September 15th, 9 a.m.

English, Monday, September 18th, 9 a.m.

French, Tuesday, September 19th, 9 a.m.

German, Tuesday, September 19th, 2 p.m.

Greek, Thursday, September 21st, 9 a.m.

The supplemental examinations in Surveying will be held on Thursday, August 31st.

- The supplemental examinations in Electrical, Mechanical and Practical Chemistry subjects of the Second and Third Years, will be held on Thursday, September 14th, and following days.
- The supplemental examinations in all other subjects will be held on October 7th and following days.
- The examination in English Literature (Vacation Work, see p. 141) and the Exhibition examinations will be held on Saturday, October 7th, and following days.

Field Work in Surveying will commence on Friday, September 1st.

Lectures in the First Year will commence on Wednesday, September 20th.

Lectures in the Second, Third and Fourth Year, Electrical, Mechanical and Practical Chemistry Courses will commence on Wednesday, September 20th.

Lectures in the Second, Third and Fourth Year, Architectural, Civil and Mining Courses will commence on Monday, October 2nd.

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# Faculty of Applied Science.

WILLIAM PETERSON, M.A., LL.D., Principal.

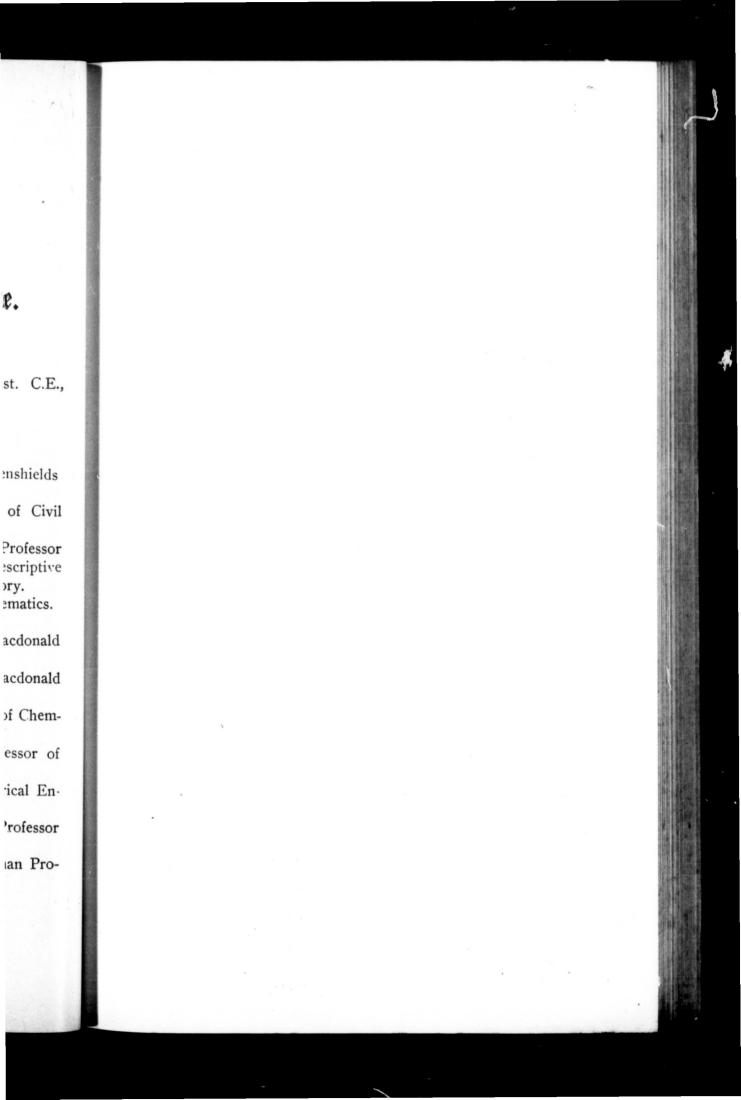
HENRY T. BOVEY, M.A., D.C.L., LL.D., M. Inst. C.E., F.R.S.C., Dean of the Faculty.

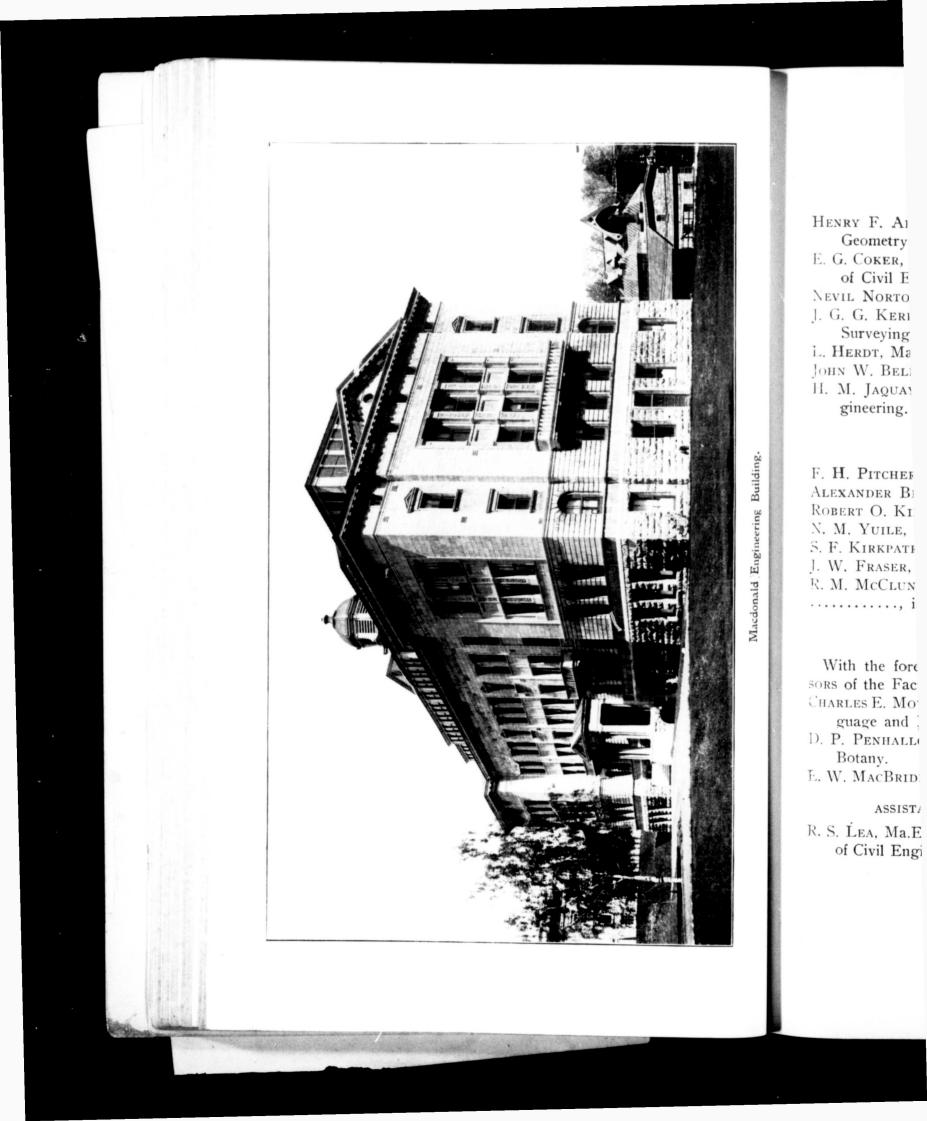
### PROFESSORS.

- 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.

JOHN COX, M.A., Macdonald Professor of Physics.

- S. HENBEST CAPPER, M.A., A.R.I.B.A., R.C.A., Macdonald Professor of Architecture.
- J. B. PORTER, E.M., Ph.D., M.Can.Soc.C.E., Macdonald Professor of Mining and Metallurgy.
- ). W. WALKER, M.A., Ph.D., Macdonald Professor of Chemistry.
- E. RUTHERFORD, B.Sc., M.A., Macdonald Professor of Physics.
- R. B. OWENS, E.E., Macdonald Professor of Electrical Engineering.
- FRANK D. ADAMS, M.A.Sc., Ph.D., F.G.S., Logan Professor of Geology.
- R. J. DURLEY, B.Sc., Ma.E., A.M.Inst.C.E., Workman Professor of Mechanical Engineering.





- HENRY F. ARMSTRONG, Assistant Professor of Descriptive Geometry and Freehand Drawing.
- E. G. COKER, B.A., B.Sc., A.M.Inst.C.E., Assistant Professor of Civil 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, Ma.E., E.E., Lecturer in Electrical Engineering. JOHN W. BELL, M.Sc., Lecturer in Metallurgy.

H. M. JAQUAYS, M.A., M.Sc., Lecturer in Mechanical Engineering.

#### DEMONSTRATORS.

F. H. PITCHER, M.A.Sc., in Physics.

ALEXANDER BRODIE, M.A.Sc., in Practical Chemistry.

ROBERT O. KING, B.A.Sc., in Physics.

N. M. YUILE, B.Sc., in Mining.

Building

Macdonald Engineering

S. F. KIRKPATRICK, B.Sc., Dawson Fellow in Metallurgy.

J. W. FRASER, B.Sc., in Physics.

R. M. MCCLUNG, B.A., in Physics.

....., in Mechanical Engineering.

With the foregoing are associated the following PROFES-SORS 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.
- E. W. MACBRIDE, M.A., B.Sc., Professor of Zoology.

### ASSISTANT PROFESSORS AND LECTURERS.

R. S. LEA, Ma.E., Asso.M.Can.Soc.C.E., Assistant Professor of Civil Engineering, and Lecturer in Mathematics.

G

# FACULTY OF APPLIED SCIENCE.

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### § 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 Science" (B.Sc.), mention being made in the Diploma of the particular Department of study pursued; and, subsequently, the degrees of "Master of Science" (M.Sc.), and "Doctor of Science" (D.Sc.) (§ IV.)

## § II. SUBJECTS OF INSTRUCTION.

The tables on the following pages shew 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 and METALLURGY.

VI.—PRACTICAL CHEMISTRY.

#### SUBJECTS.

### Descriptive Geometry

English.... Freehand Drawing... Geometrical Drawing Lettering..... A athematics... Physics... Projections. Mathematical Laboratory. Shopwork...

> Architecture, Theory ( Architectural History Building Construction Chemistry..... Descriptive Geometry Drawing and Design. Freehand Drawing... Kinematics of Machir Mapping .... Mathematics Mechanism Physics... Surveying... Chemical Laboratory. Physical Laboratory. Shopwork...

YEAR.

SECOND

YEAR

THIRD

1.

Architecture
Art History
Art History
Chemistry. D. C. Dynamo, Machin
D. C. Dynamo, Machin
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Descriptive Geometry
Descriptive Ocometry
Designing of Drawing
Decoration, Ornament, Descriptive Geometry Designing or Drawing . Determinative Minerale
Dynamics of Machiner
Freehand Drawing
Geology
Geology Graphical Statics
Graphical Statics
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Hygien Machine Design
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Mechanical Drawing
Metallurgy
Mechanical Drawing Metallurgy Mineralogy Ore Dressing
Ore Dressing
Modelling Municipal Engineering. Museum Work in Geolog
Municipal Engineering
Museum Work in Coole
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Specifications
Surveying. Theory of Structures.
Theory of Structures.
Thermodynamics
Chemical Laboratory
Electrical Laboratory
Thermodynamics Chemical Laboratory Electrical Engineering
Physical Laboratory
Testing Laboratory
Physical Laboratory Testing Laboratory Thermodynamic Labora
Shopwork

(a) First Term. (b) Second

afford a theoretrofession by of the and Sur-Practical Art. th underions and the first n being of study aster of (§ IV.)

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	SUBJECTS.		I	II	111	IV	v	VI
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SECOND YEAK.	Architecture, Theory of Architectural History. Building Construction Chemistry. Descriptive Geometry. Drawing and Design. Freehand Drawing Kinematics of Machinery. Mapping Mathematics Mechanism Physics. Surveying. Chemical Laboratory. Physical Laboratory. Shopwork	" 1     " 2     " 2     " 4     " 4     " 5     " 7     " 13     " 12     " 3     XIV., 4     " 16	3		3 3   3   6   2   3 3 0	3 3   3 6   <b>a</b>   3 36	33 36 12 33 34	5 6 10 3
THIRD YEAR.	Architecture. Art History. Chemistry. D. C. Dynamo, Machinery, etc. Decoration, Ornament, etc. Descriptive Geometry Designing or Drawing. Determinative Mineralogy. Dynamics of Machinery. Freehand Drawing. Geology Graphical Statics. Hygien: Machine Design. " (Exercises) Mapping Mathematics. Mechanical Drawing. Metallurgy. Ore Dressing. Modelling Municipal Engineering. Museum Work in Geology. Physics Specifications. Surveying. Theory of Structures. Thermodynamics Chemical Laboratory. Electrical Engineering Lab. Mining Laboratory. Thermodynamic Laboratory. Shopwork.		$\begin{array}{c} 1 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\$	$\begin{array}{c} 3 & (Opt.) \\ - \\ - \\ - \\ 1 \\ 1 \\ 2(a) \\ \tau(b) \\ 2 \\ - \\ - \\ - \\ 3 \\ (a) \\ - \\ 3 \\ (a) \end{array}$	2 - - - - - - - - - - - - -		$ \begin{array}{c}     2 \\     3 \\     6 \\     3 (a) \\     3 (b) \\     3 (b) \end{array} $	9 3 (1

(a) First Term. (b) Second Term.

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SUBJECTS.         I         II         II         II         IV         V         VI           A. C. Machinery. $$ XIII. 6$ -         -         3         -         -         -           Architecture         i         i         1         -         -         -         -         -         -           Chemistry.         (Electro). Metallurgi-         9         -
Architecture       " 1 1       -       -       -       -       -       -       -       -       -       -       -       -       -       6         Chemistry.       (Electro, Metallurgi)       " 9       -       -       -       -       -       6         Designing       " 2       2       -       -       -       -       -       6         Dynamics of Machinery       " 7       -       2       2       -

(a) First Term. (b) Second Term.

FOURTH YEAR.

# § III.

All Student of the Arts Cc mitted into the tion. (See § 1 Students an standing in the studies will wa ing and shopw Candidates

completed a p of Applied Sci ing.

Students ma instruction, as tion or otherw Candidates for first day of ex engaged in sur 9 a.m. on Wed:

Examination 12th, and follo centres, and (2 days, in McGil

begin.

Any Head M ination in June some suitable I is willing to ac tions, hold the Montreal. Fur will be given on

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(b) English, inc
(c) French or C
In 1901 and sub
(d) One of the

(3) Chemistry, (4

## § III. MATRICULATION AND ADMISSION.

All Students are recommended to take one or two years of the Arts Course. They are then, if otherwise qualified, admitted into the Faculty of Applied Science without examination. (See § 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 shopwork during their Arts Course.

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

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

Candidates for examination must present themselves on the first day of examination, and all Students, excepting those engaged in surveying field work, must attend punctually at 9 a.m. on Wednesday, September 20th, when the lectures will begin.

Examinations for entrance will be held in 1899 (1) on June 12th, and following days, in McGill College and at local centres, and (2) on Thursday, September 14, and following days, in McGill College only.

Any Head Master or other person desiring a local examination in June must, before May 10th, 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 to Montreal. Further particulars relating to this examination will be given on application to the Secretary of the University.

### SUBJECTS OF EXAMINATION.

(a) Mathematics.

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(a), (b)

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), 3(b) )pt.

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(a)

2

a), 2(b) Upt.

(b) English, including History.

(c) French or German or Greek or Latin.

In 1901 and subsequently,

(d) One of the following:—(1) Another Language, (2) Botany;
(3) Chemistry, (4) Physics, (5) Physiography.

Mathematics.—Arithmetic.—All the ordinary rules, including square root and a knowledge of the Metric System. Algebra.—Elementary rules, Involution, Evolution, Fractions, Indices, Suras, 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. An equivalent amount of geometry from any standard text-book will be accepted. Trigonometry.—As in Hamblin Smith, pp. 1-100, omitting Ch. XI.

*N.B.*—In 1900 and subsequently the following additional Algebra will be required:—The three Progressions: Ratio, Proportion and Variation; Permutations and Combinations; Binomial Theorem; Scales of Notation; Logarithms; Interest and Annuities.

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. Candidates are required to state the clause to which any subordinate sentence belongs, and to arrange and define the various parts of all sentences set. (Failure in Analysis and Parsing will cause the rejection of the paper.) West's Elements of English Grammar is recommended as a text-book, and attention is particularly directed to pages 197-216. English History .- The 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. Composition .- The candidates will write a short essay on a subject given at the time of the examination. Literature.-Scott's Lady of the Lake, ed. Stuart (Macmillan) and SHAKSPERE'S Richard II., ed. Deighton (Macmillan), or WORDSWORTH (Arnows Selections as specified in Junior Matriculation English [1899] of the University of Toronto.)

**French**.—Grammar, including syntax, as in Bertenshaw (Longmans), or equivalent text book. 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.—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).

Greek -XENOPHON, Anabasis, Book I.; Greek Grammar.

Latin. —CÆSH Book I.; Latin ( In both Greek position (sentence prose text) will At the Septem in Greek or Lati application be ma before the day c

Botany.— As to the Collection Credit will be Note.—Any pla of those specified ing to requireme

**Chemistry**—E preparation and p more important of weights, etc. (A

Physic.-(As ters I., II., III.,

**Physiography** Book of Physica graphy, or other

Candidates, who passed in the abo Candidates who of Quebec, or the

on entrance, be e: tation, English H Candidates who tion, or who hav themselves again re-examination in have reported the

At the June en an equivalent amo culation Examina

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(Long-French tion or familiar-

nt), toas in the juivalent Latin. —CÆSAR, 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.

**Botany.**— As in Groom's Elementary Botany, Penhallow's Guide to the Collection of Plants, and Blanks for Plant Description.

Credit will be given for plant collections.

Note.—Any plant of the same family may be substituted for any one of those specified in Part II. of Groom's Elementary Botany, according to requirements of the locality.

**Chemistry**—Elementary Inorganic Chemistry, comprising the preparation and properties of the chief non-metallic elements, and their more important compounds, the laws of chemical action, combining weights, etc. (As in Remsen's "Elements of Chemistry," pp. 1-160.)

**Physice.**—(As in Gage's Introduction to Physical Science, Chapters I., II., III., IV. and V.)

**Physiography** —The elements of the Science (As in Tarr's First Book of Physical Geography, *or* Hinman's Eclectic Physical Geography, or other text-book covering the same ground)

#### GENERAL REGULATIONS.

Candidates, who at the examination for Associate in Arts 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 examintion, or who have taken part only of the examination and present themselves again in the following September, will be exempted from re-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 Matriculation Examination of the University of Toronto.

## The Matriculation or Junior Leaving Examination accepted by the Universities of Ontario, and the Leaving Examinations of Nova Scotia, are 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.

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.

### *iv.* EXAMINATIONS.

# 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.

## I. FOR THE DEGREE OF BACHELOR OF SCIENCE.

(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 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 SCIENCE.

Bachelors of Arts or Bachelors of Science of at least one year's standing who shall have taken for one year a Graduate Course of Study in the Faculty of Arts or the Faculty of Applied Science of the University previously submitted to and approved by the Faculty, shall have passed an examination at the end of the year, shall, if required by the Faculty, have presented a satisfactory thesis, and shall have performed such other exercises lors of Arts of standing who is have passed a hnave performe to that end;—t Arts or the Fa and also of any associate with of Master of S University shal is conferred on or the Faculty

## III. FOF

11.—Masters Medicine, who, ing, shall have and learning in a satisfactory ti formed such oth --the whole to sisting of such 1 may in that bel of Doctor of Sc

IV. SPECIAL PR( OF BA

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other exercises as may be prescribed to that end; or Bachelors of Arts or Bachelors of Science of at least two years' standing who shall have presented a satisfactory thesis, shall have passed a special examination for the degree, and shall hnave performed such other exercises as may be prescribed to that end;—the whole to the satisfaction of the Faculty of Arts or the Faculty of Applied Science as the case may be and also of any other Examiners whom the Corporation may associate with the Faculty—shall be entitled to the Degree of Master of Science. The Diploma and the Records of the University shall indicate, in special terms, that the Degree is conferred on the recommendation of the Faculty of Arts or the Faculty of Applied Science, as the case may be.

## III. FOR THE DEGREE OF DOCTOR OF SCIENCE.

11.—Masters of Arts or Masters of Science or Doctors of Medicine, who, being Graduates of at least five years' standing, shall have distinguished themselves by special research and learning in the domain of Science, shall have presented a satisfactory thesis or published work, and shall have performed such other exercises as may be prescribed to that end; --the whole to the satisfaction of a standing committee consisting of such members of the University as the Corporation may in that behalf appoint—shall be entitled to the Degree of Doctor of Science.

## IV. SPECIAL PROVISIONS FOR OBTAINING THE TWO DEGREES OF BACHELOR OF ARTS AND BACHELOR OF SCIENCE IN SIL YEARS.

The Regulations heretofore in force have been modified so as to enable Students to take the two degrees of B.A. and B.Sc. in six years, as follows:—

I. Students who have passed the Intermediate in Arts may onter the First Year of the Applied Science Course, and will be exempted from the modern languages which they have already taken in Arts.

## **W. 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, on presentation at the end of one additional year of a satisfactory thesis on approved work.

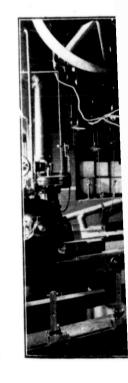
Students are strongly recommended to take a Graduate Course, and special arrangements will be made for advanced and research work in the following:—

In Architecture—Advanced study in design. (See § XIII, 1.)

In Chemistry and Mineralogy. (See § XIII., 8, 9 and 11, and § XIV., 4.)

In the determination and comparison of the errors and the co-efficients of standards of length. (See § XIII., 3, and § XIV., 11.)

In the determination of gravity. (See § XIV., 11.)



2. The remaining subjects required for the B.A. degree

3. The Faculty of Arts will accept the Mathematical Physics of the Applied Science Course in lieu of the Mathema-

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 degree in Science to those who, previous to entering the Faculty of Applied Science, 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 de-

may be spread over three years instead of two.

tical Physics of the Arts Course.

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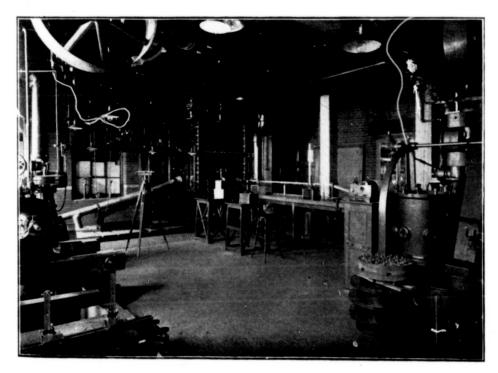
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An Engineering Testing Laboratory.



Hydraulic Laboratory.

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equipped and Courses and o pure Physics. shops for the such investigat

IN MATHEMA receive guidan connection wit The elasticity and strength of materials. (See § XIII., 2, and § XIV., 17.)

In Mining and Metallurgy—Advanced study in metallurgy and ore dressing can be carried on with great advantage in the new laboratories. (See § XIII., 8, and XIV., 13.)

The efficiency of pumps and hydraulic motors. (See § XIII., 2, and § XIV., 12.)

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

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

The efficiency of machines and machine tools, and the power absorbed by the several processes of mechanical work, (See § XIII., 7.)

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

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

On the efficiency of dynamos and electric motors. (See § XIII., 6, and § XIV., 6.)

The flow of water through orifices and pipes, and over weirs. (See § XIII., 2, and § XIV., 8.)

In Geodesy and practical astronomy. (See § XIV., 7.)

In street railway design and theory, and in alternating apparatus. (See § XIII., 6, and § XIV., 6.)

In Physics.—The Macdonald 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 § XIV., 16.)

IN MATHEMATICS.—Students taking Graduate Courses will receive guidance in any advanced Mathematics required in connection with their work.

## **VI. ATTENDANCE AND CONDUCT.**

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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. Any 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 1st 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 as caution money for damage done to the furniture, machinery or other apparatus, and also for loss of and damage to books belonging to the University. 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 rata assessment will be made over all the students more directly concerned.

## VII. LIBRARY.

## Librarian:--C. H. GOULD, B.A.

#### Assistant Librarian:-H. MOTT.

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 Room from 9 a.m. till 6 p.m., and also from 7.30 till 10.30 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 1 p.m.

2. 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.

3. No borrowers other than a Professor or Lecturer may keep any book belonging to the Library longer than two weeks, on penalty of a fine of 5cts a volume for each day of detention, but any borrower may renew the loan of a book for fitting reasons. A borrower incurring fines h use of the Libra

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ay keep any 1 penalty of 1 borrower 1 borrower incurring fines beyond the sum total of \$1 shall be debarred from the use of the Library until they have been paid.

4. 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 torbidden. 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.

5. Silence must be strictly observed in the Library.

#### **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 student wilfully defacing or injuring specimens, or removing the same, will be excluded from access to the Museum for the secsion.

#### IX. FEES.

The total fees for Undergraduates are \$155.00 per annum, and this amount includes the fees for Tuition, Library, Matriculation, Graduation, Laboratories, Workshops, Gymnasium, Grounds, wear and tear of Apparatus, etc., etc.

The Matriculation fee of \$5.00 (included in the \$155.00 fee) must be paid to the University Secretary previous to the examination.

Deposit for caution money (see § VI.), \$5.00.

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, which, unless otherwise specified, is 12.50 for each term, or 25.00 for the whole session.

SPECIAL LABORATORY FEES.--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.

SPECIAL 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 :—

I day, or 7 hours per week for the whole Session from

			September	to April :	\$25	00	
2 days, or 1	4 "	"	"	"	45	00	
3 days, or 2	°I "	**	"	"		00	
4 days, or 2	8 "	""	**	"	70	00	
Fee for Suppl	emental E	xaminati	on, at date	fixed by			
				Faculty	2	00	
**	"	if for any	y special rea	son grante	ed		
at any other of	date than				5	00	

Fee for a certificate of standing 2 00

The fees must be paid to the Secretary, and the receipts 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 \$150.00. Graduates of this Faculty will be required to pay only one-half of this amount.

Fee for the Degree of Master of Science (M.Sc.) \$20 00 Fee for the degree of Doctor of Science (D.Sc.).. 80 00

If for any special reason the Bachelor's or Master's degree be granted *in absentia* the fee will be \$40.00.

## X. MEDAI

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## 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 are open for competition to students of the Graduating Class in each of the six Departments of the Faculty, and, if the examiners so recommend, 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 Minto).

This Medal will be awarded for graduate Research Work. 3. SUMMER WORK. (See § XI., 1.) The following prizes are offered for the best summer Theses:—

To the students of the Civil Engineering Course a prize of \$25 presented by Alex. McFee, 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 Robert Gardner, Esq.

To the students of the Mining Engineering Course, a prize of \$25 presented by Messrs. Fraser & Chalmers.

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

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.

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. 4. A Scott Exhibition of \$50.00 and a British Association prize of \$25.00 to the Students entering the Fourth Year, the subjects of examination being the Mathematics and Theory of Structures of the Ordinary Course.

5. Three prizes of \$25.00, \$15.00 and \$10.00, to Students entering the Third Year, the subject of Examination being: --the Mathematics of the Second Year Course.

6. A SCOTT EXHIBITION of \$50.00, founded by the Caledonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, and two prizes of \$25.00 and \$15.00 to Students entering the Second Year, the subjects of Examination being:—

(a) English Literature (Summer Vacation work,) (b) Mathematics of the First Year Course. (c) Descriptive Geometry of First Year Course.

8. Two Prizes, each of \$10.00, presented by J. M. McCarthy, Esq., B.A.Sc., to Students entering the Third Year, for proficiency in Levelling or Transit Work.

9. The sum of \$150, presented by W. A. Carlyle, Esq., M.A., may be awarded in prizes to students of the Mining Course taking the highest positions in the degree examinations of 1900.

10. A prize (or prizes) to the amount of \$50, presented by Messrs. Waddell, M.A.Sc., and Hedrick, Civil Engineers, Kansas City, Mo., may be awarded for the best structure designs, prepared by the graduating class of 1900.

11. Three prizes, of \$10.00, \$6.00 and \$4.00, presented by A. C. Hutchison, Esq., R.C.A., will be awarded to the three undergraduates taking the highest standing in the Freehand Drawing of the First Year.

12. 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.

13. Prizes or certificates of merit are given to such Students as take the highest place in the Sessional and Degree Examinations. 14. Honou for advanced 15. SCIENC COMMISSION 1 ships of £150 s rare instances the Report of such as Physi which is specia object is, not enable Studen the view of air industries of t

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15. SCIENCE SCHOLARSHIPS GRANTED BY HER MAJESTY'S COMMISSION FOR THE EXHIBITION OF 1851.—The Scholarships of £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 these scholarships for the year 1899 was placed by the Commission at the disposal of McGill University, and another may be granted in 1901.

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.

Ti.is Exhibition has been awarded as follows:-

Evans, P. N., 1891 Macphail, J. A., 1893. King, R. O., 1895. Gill, J. L. W., 1897 McLean, W. B., 1899.

16. The Mason prize of \$50,00 in Electrical Engineering, given by Dr. A. F. Mason for original investigation in the practical application of Electricity.

17. WORKSHOP PRIZES.—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 workship practice.

## XI. SPECIAL PROVISIONS.

I. SUMMER WORK.—During the summer vacation following the close of each year, all students entering the Third and

## 110

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 September 21st.

2. All Students in the Architectural, Civil, and Mining Engineering Courses, entering the Second and Third Years, and Students in the Civil Engineering Course entering the Fourth Year, are required to be in attendance at the University on the 1st September, when the Field-work in Surveying will commence. (See § XIII., 3.)

3. All Students in the Mining Course are required to attend the Summer School in Mining, held between the Third and Fourth Years (four to six weeks of field-work), and students between the Second and Third Years are advised to do the same if practicable. The school is held in May and June.

4. Partial Students may be admitted to the professional classes upon payment of special fees. (§ IX.)

5. Students in Applied Science may, by permission of the Faculty, take the Honour Classes in the Faculty of Arts.

6. 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.

7. 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.

8. Students may be required to answer satisfactorily a weekly paper on such subjects of the course as the Faculty may determine.

9. Cred work done will be spe 10. Stu consequence ination in : viously pa Faculty. A the comme II. Par 12. Cert ed through culum. 13. The gineers are nightly mee gineering s joining the ings, and a relation to t 14. Caps may be obta ing.

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9. 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.

10. 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.

11. Partial Students are not eligible for prizes.

12. Certificates may be given to Students who have passed through any of the special courses attached to the curriculum.

13. 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 the 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.

14. 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 1898-99:--

A. B. Kenneily, Ph.D. (Phila.), a series of lectures on "Submarine Telegraphy."

Walter B. Snow (Boston), on "Efficiency of Mechanical Draft." Under the auspices of the Applied Science Society:--

J. Wallace Walker, Ph.D., on "New Gases of the Atmosphere."

J. W. Bell, B.A.Sc., on "The Metallurgy of Copper and Lead."

G. A. McCarthy, B.A.Sc., and E. G. Matheson, B.A.Sc., on "Rope Testing."

J. M. McCarthy, B.A.Sc., on "Foundations of the S. S. Railway Bridge at Sorel, P.Q.

Arthur Weir, B.A.Sc., on "History of Transportation in Canada."

E. Rutherford, B.Sc., on "Wireless Telegraphy."
Also, under the auspices of the McGill Mining Society:J. F. Johnston, B.A., on "The Manufacture of High Explosives."
N. Norton Evans, M.A.Sc., on "Mining in Freiberg, Saxony."
Captain J. J. Riley, on "Mining in Peru in the Sixties."
W. Adams, B.A.Sc., on "Mining in British Columbia."
J. W. Sword, Esq., on "Mining Machinery in British Columbia."
C. C. Hansen, M.E., on "New Electric Power Plant at the War Eagle Mines, Rossland, B.C."

#### XIII. COURSES OF LECTURES.

N.B.—The following courses are subject to such modifications during the year as the Faculty may deem advisable.

F-

#### I. ARCHITECTURE.

Professor:-S. HENBEST CAPPER, M.A. (Macdonald Professor of Architecture.)

## Lecturer:-H. F. ARMSTRONG.

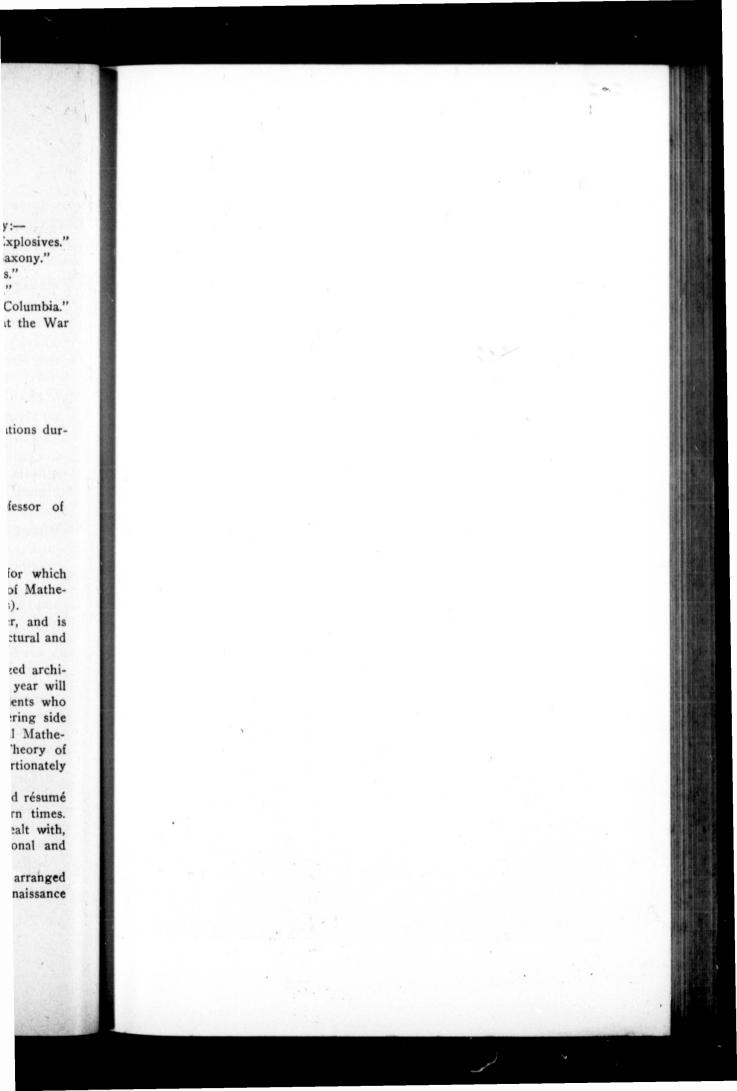
The Architectural Course begins in the second year, for which the first year is preparatory, especially in the departments of Mathematics and Drawing (Freehand, Lettering and Projections).

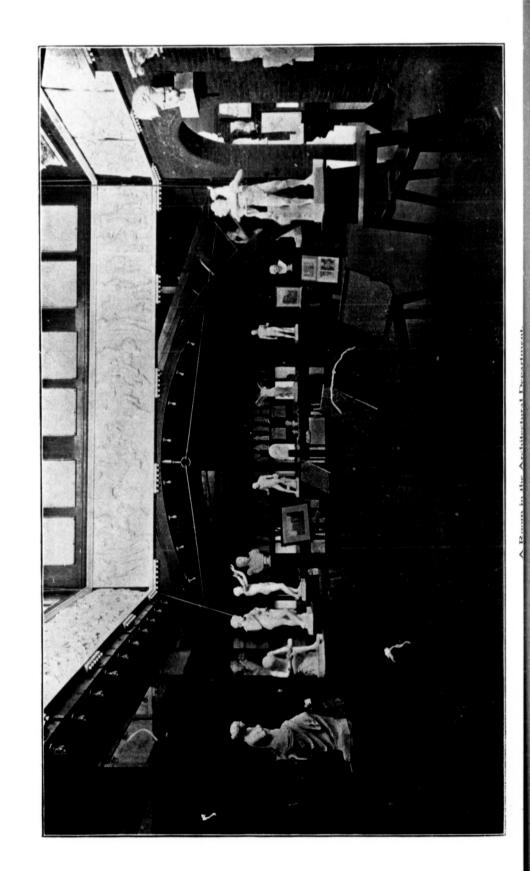
The work of the second year is of a general character, and is planned to combine to some extent the work of the Architectural and of the Civil Engineering students.

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 in design. For those students who desire to devote themselves more especially to the engineering side of architecture, the course is modified to include additional Mathematics in the third year, and the advanced course of Theory of Structures in the fourth year. Such students devote proportionately less time to architectural drawing and designing.

In the second year the Historical Course embraces a rapid résumé 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.

In the third and fourth years the historical lectures are arranged in continuation and extension of this general course, Renaissance





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and Modern Architecture being specially studied in the third year. The fourth year comprises more detailed courses upon Ecclesiastical, Domestic and Public Architecture, dealing with the historic evolution of architectural styles and with the problems and requirements of modern work.

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 Testing Laboratories, where practical experiments are conducted.

The Theory of Structures is dealt with, as also Municipal Engineering and Sanitation and Hygiene, Heating and Ventilation, and Electric Installation.

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 also studied.

Instruction in Drawing is given during all four years—Freehand Drawing (ornament and figure) from the cast, and Architectural Drawing occupying much of the students' time during three years of the course. Modelling in clay is included in the third and fourth years.

Problems in Architectural Design form the basis of work in the Architectural Drawing class from the earliest available period, and are combined with the study of the Classical Orders.

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 contemporary forms in other branches of art, especially the decorative arts employed in building.

The special courses of study are as follows:-

- General Architectural History.—T., 10; W., 11; Second Year (1st term) Ancient Egypt; Greece; Rome; Byzantine and Early Christian Architecture. (2nd term) Romanesque; The Monastic Orders; Gothic; The Renaissance and Neo-classic.
- 2. Renaissance and Modern Architecture.—T., 9; W., 12; Third Year. (1st term) The Renaissance in Italy and Spain. (2nd term) France; England; Colonial and Modern.
- 3. Doriestic, Public and Ecclesiastical Architecture.—F., 9; Fourth Year, Historical résumé; modern conditions and requirements.

- 4. Theory of Architecture.—M., 10; Second Year. The Orders of Architecture, arcading, mouldings, etc. Composition; elements of architectural effect; style.
- 5. Art History.-M., 9; Third and Fourth Years together. Sculpture; Painting; The Industrial Arts.
- 6. Drawing and Modelling:
  - (a) Freehand Drawing from the cast (ornament and figure).
     4 hrs., Second Year; 6 hrs., Third and Fourth Years.
     About 2 hrs. additional time for water-color work, etc., in Fourth Year.
  - (b) Architectural Drawing and Design.—9 hrs., Second Year. Studies of the orders and order-problems; architectural rendering with brush and pen.
    - 12 hrs., Third year; 18 hrs., Fourth Year.—Problems in design.
  - (c) Modelling, 3 hrs. (one term) Third and Fourth Years. Architectural ornament modelled in clay from the cast.
- 7. Building Construction.—Th., 11; Second Year. Lectures and Exercises.
- 8. Specifications and Contracts.—Th., 9; Third and Fourth years together. General conditions of contract; specifications for various trades; professional practice.
- 9. Hygiene.—F., 12 (2nd Term); Third and Fourth Years together. Principles of sanitation and house-drainage; ventilation; heating; electric installation.
- 10. Municipal Engineering.—W., 12; Third and Fourth Years alternately. Sewage of Cities and Towns.

#### ARCHITECTURAL EQUIPMENT.

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

#### WOMEN STUDENTS.

The Architectural, Freehand Drawing and Modelling Classes are 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 El

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#### 2. CIVIL ENGINEERING AND APPLIED MECHANICS.

Professor:-HENRY T. BOVEY, M. INST. C. E. (Scott Professor of Civil Engineering and Applied Mechanics).

Assistant Professors:-R. S. LEA, MA.E.

#### E. G. COKER, B. Sc., 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, roofs, bridge piers and trasses, arches, arched ribs, masonry dams, foundations, earth work: 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 § XIV.) 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 co struction, with special reference to the form and position of such material in the structure.

During session 1898-99, theses have been prepared on the following:---

(a) The effect upon steel bars of combined torsion and tension;

(b) The effect of the size of a concrete cube upon its strength;

(c) The strength of rollers;

(d) The influence of annealing on the tensile strength of copper under repeated stresses;

(e) The torsional rigidity of round and square steel bars.

THIRD YEAR.—During the Third Year the laboratory work includes the following:—

(a) The Testing of Timber.—Transverse tests of hard and soft timber beams; compressive, bearing, tensile, shearing and torsional tests of specimens from the same beams.

(b) The Testing of Iron, Steel and Alloys.—Tensile tests of cast iron, wrought iron and steel beams; tensile, compressive and torsional tests of specimens of mild steel, cast steel, cast iron and alloys.

(c) The testing of Bricks, Stones, Slates, etc.—Compressive, absorption and rumbling tests of bricks and stones; transverse, compressive and shearing tests of slates and other materials.

(d) The Testing of Concrete and Cement.—Complete tests of concretes and cements, in accordance with the standard methods.

(e) Notes on the characteristics, uses, life, methods of preservation, etc., and special tests of the various materials of construction.

#### BRIDGE CONSTRUCTION.

A course of lectures is given on practical bridge construction, including:

(a) The reasons governing the selection of a particular type of bridge;

(b) A discussion of the loads to which the bridge will be subjected;

(c) The calculations of the stresses in the several members of the bridge.

(d) The determination of the sectional areas and forms of the members;

(e) The design of the connections;

(f) The preparation of complete engineering drawings.

#### HYDRAULICS.

The Student is instructed in the fundamental laws governing the equilibrum of fluids, and in the laws of flow through orifices, mouthpieces, 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 § XIV.) will include the following:-

(a) Flow through orifices.—The determination of the coefficients of discharge velocity, etc.

(b) Flow over we charge we ment of the constraint of the

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(b) Electrical ti

(c) Hydraulie t

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(b) Sewerage of removal of sewage ate disposal; the p and intercepting materials used in

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- (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 in 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.

#### TRANSMISSION AND DISTRIBUTION OF POWER.

A special course of lectures on the transmission and distribution of power will be delivered during the term, and will embrace the following:-

(a) Transmission and distribution by wire ropes, compressed air, and steam.

(b) Electrical transmission and distribution.

(c) Hydrauli transmission and distribution.

#### MUNICIPAL ENGINEERING.

The lectures on this subject will embrace :--

(a) Water 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 ultimate disposal; the proportioning and construction of main, branch and intercepting sewers; manholes, flush-tanks, catch-basins, etc.; materials used in construction; estimates of cost.

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#### ELEMENTS OF BUILDING CONSTRUCTION AND FOUNDATIONS.

#### Lecturers:-Professors Capper and Lea.

These lectures will treat of:-

- (a) Brick and stone masonry.
- (b) Timber framing; flooring, beams, columns, centering, etc.
- (c) Iron and steel framing; girders, columns, etc.
- (d) Fire-proof and slow-burning construction.
- (e) The bearing power of the various soils, rocks, etc., as they occur in Nature.
- (f) The stability and character of the underlying material at any given site, taking into account the effect of frost, erosion, etc.
- (g) The construction of different kinds of foundations, both on land and in water, by piling, dredging, coffer dams, open and pneumatic caissons, freezing, etc.

#### 3. SURVEYING, GEODESY AND TRANSPORTATION.

Professor:-C. H. McLEOD, Ma.E. Lecturer:-J. G. G. KERRY, Ma.E.

#### SURVEYING AND GEODESY.

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. Simple curves and setting out work. Descriptions for deeds. General land systems of the Dominion and Provinces.

THIRD YEAR.—Construction surveying, including the location of roads, transition curves, setting out work and calculation of quantities. Geodetic, trigonometric and barometric levelling. 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 compass and micrometer survey. (5) A contour survey. (6) A plane table survey. (7) A survey and location of a line of road with determination of topography and contours and subsequent staking out for construction. (8) A hydrograph ment of discharge. methods. Astronou transit.

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FOURTH YEAR.—I latitude, longtitude measurements of ba and reductions of ol The field work of

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All students are required to keep complete field notes, and from them 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, longtitude and azimuth. Geodesy :—figure of the earth ; measurements of base lines and triangulation systems; adjustments and reductions of observations.

The field work of the Fourth Year consists in the measurement of a base-line, in triangulations and precision levelling.

The practical work in astronomy (for equipment of observatory see XIV, Art 11) 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 astronomical transit. (6) Latitude by zenith telescope. (7) Latitude by transit in prime vertical.

Field work is required of all students of the Second and Third Years in the courses of Architecture, Civil and Mining, and of the Fourth Year in the Civil course. The work will begin on the first of September, and continue through the entire month. The surveys will be made in a place some distance from Montreal. Suitable provision for board and lodging will be arranged for at the place selected.

Exercises in the Geodetic laboratory (for equipment see § XIV., Art II) carried out in the Fourth Year include the following:-(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. (10) Investigation of the graduation errors of steel tapes on the fifty-foot comparator. (11)' Investigation of the errors of aneroid barometers. (12) Investigation of the errors of level tubes, and determination of their scale values. (13) Measurement of the force of gravity with a reversible (14) Measurements of magnetic dip, declination and pendulum. horizontal force.

The equipment of the surveying department comprises the follow-

ing, in addition to the apparatus of the Observatory and Geodetic Laboratory:-Eleven transit theodolites by various makers, with solar and mining attachments. A photo-theodolite, 8-in. alt-azimuth Seven dumpy and three wye levels. Hand levels and clinometers. Two precision levels. Five surveyors' compasses. Three prismatic compasses. Pocket compasses. One solar compass. Three marine sextants. Artificial horizons. Four box sextants. Two reflecting circles. Two large plane tables. Four traverse plane tables. Four current meters. Rochon micrometer. Double image micrometer. Field-glasses. Two heliotropes. Several barometers. 300 ft. and 500 ft. steel tapes suitable for base measurements. Steel chains and steel bands. Linen and metallic tapes. Sounding lines. Pickets. Levelling rods. Micrometer targets. Slope rods. Pedometers. Station pointer, pantographs, planimeter, slide rules and minor appliances.

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.

#### TRANSPORTATION.

#### On Common Roads, Railways and Canals.

The lectures will embrace:-

(a) A brief historical review of the inception and carrying out of the great Canadian systems of transportation, and a resumé of the laws governing them.

(b) Common roads and streets.—Provision made for them in settling up land; the traffic for which they are suited, and the cost of hauling it over different surfaces; the materials used in their construction, and the merits and cost of the various systems.

(c) Canals and rivers.—The Canadian canal system, the methods and costs of construction and maintenance, the traffic it is designed to carry, and the cost of transportation.

(d) Steam railroads.—The traffic they serve and the cost of handling it, the details of location and the influence of physical features and trade possibilities upon it, and cost and design of construction, the duties of the engineer upon such work, the appliances at present in use for safe and speedy handling of trains. (e) Electric roation and construct probable future.

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The questions of the development and applying of motive power and the various appliances, mechanical and electrical, now in use for these special purposes are taken up in special descriptive lectures in the mechanical and electrical departments.

## 4. DESCRIPTIVE GEOMETRY.

## Lecturers:-C. H. McLeod, Ma.E. H. F. Armstrong.

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, and 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, EIC.

## Assistant Professor:-H. F. ARMSTRONG.

In the *Freehand Course*, the object is to train the hand and eye so that students may readily make sketches from parts of machinery etc., either as perspective drawing 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.

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# Professor:---R. B. OWENS, E.E. (Macdonald Professor of Electrical Engineering).

## Lecturer:-L. A. HERDT, Ma.E., E.E.

The first two years of the Undergraduate course of instruction in Electrical Engineering are devoted mainly to preparation in mathematics. physics, chemistry, mechanics, drawing and shopwork, and work in the physical and chemical laboratories. The electrical studies of the Third Year consist of the principles of electro-magnetism and continuous current dynamo electric machinery-two lectures per week, the principles of electrical measurement-one lecture per week, and four periods of three hours each in the Physical and Electrical Engineering laboratories. The Fourth Year is devoted principally to electrical work. Lectures and recitations on alternating current phenomena, including the principles of action and design of alternating current machinery for lighting and power purposes-three lectures per week; electric lighting systems, including central station design and operation, street railways, electric power transmission, etc., - three lectures per week; and three periods of three hours each in the electrical engineering laboratory. In the second term of the Fourth Year a choice may be made between the following options: electro-chemistry, advanced thermodynamics, hydraulics (second term). Each Fourth Year student is required to present a thesis giving the results of a suitable experimental investigation.

#### Undergraduate Courses.

I. Electro-Magnetism and the Magnetic Circuit. The theory and application of the laws of electro-magnetism and the laws of the magnetic circuit. T., Th., at 9. First term.

2. Direct Current Dynamo-Electric machinery. The principles of action of commutating and rectifying machines are discussed, and their practical design considered upon the general lines developed by Hopkinson and Kapp, and used by our best makers. Each student is required to design and make complete drawings of a direct current machine. T., Th., at 9. Second term.

3. Alternating Currents and Alternating Current machinery. Theoretical consideration of variable current flow in circuits containing resistance, inductance and capacity under different conditions. The principles of action of synchronous and induction apparatus. Complete designs of one of more types of alternating current machines are required. M., W., F., at II. First and Second term.

4. Electric Lighting and Systems of Electric Distribution. The



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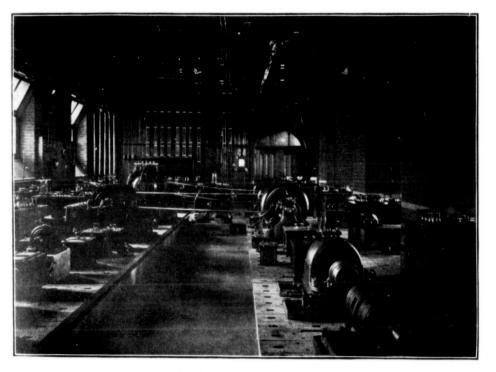
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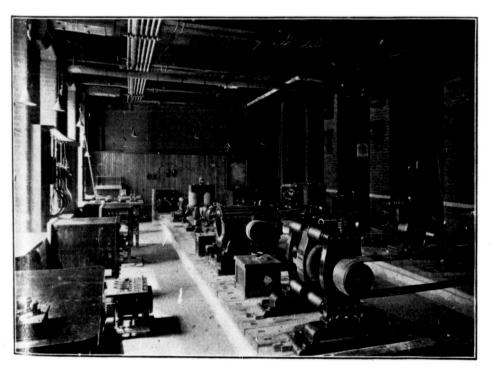
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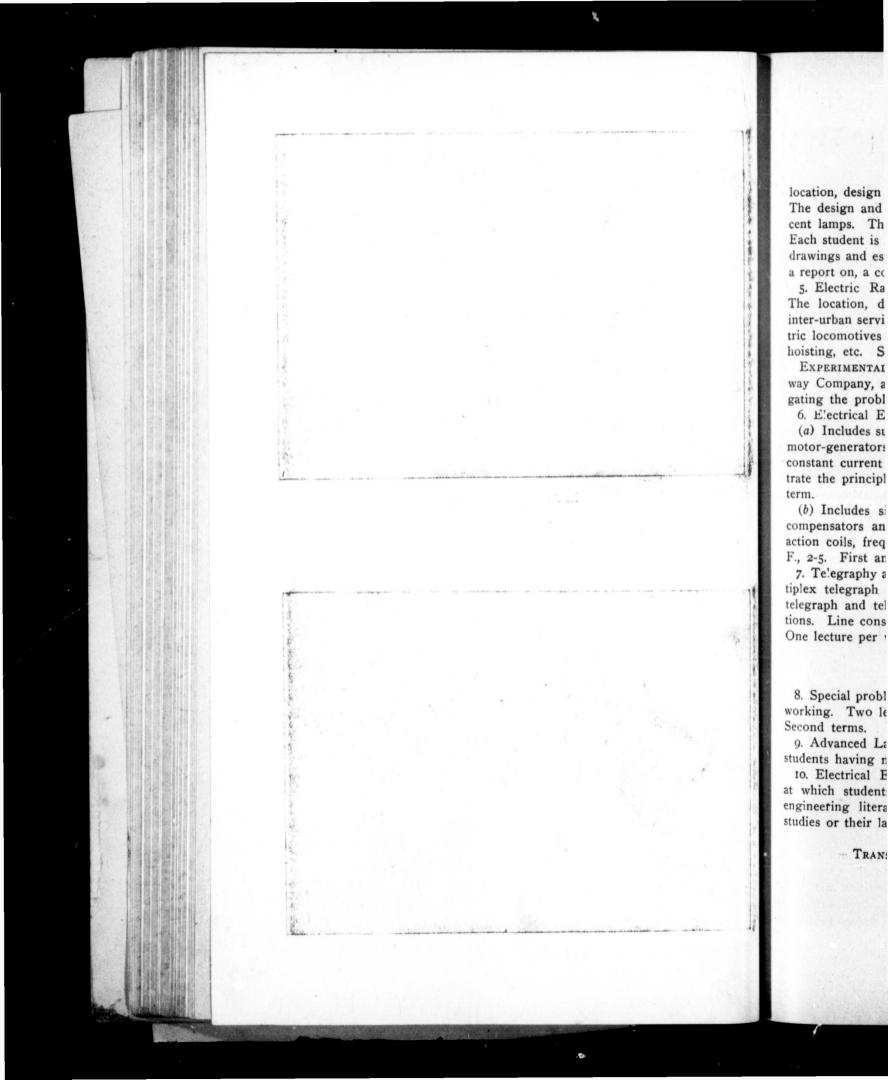
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In the Dynamo Rooms.



location, design and operation of central and isolated lighting plants. The design and construction of distributing lines. Arc and incandescent lamps. The application of motors for general power purposes. Each student is required to design a lighting or power plant, making drawings and estimates for its construction, and to make a test of, or a report on, a commercial plant. T., W., F., at 10. First term.

5. Electric Railways and Electricity in Engineering Operations. The location, design and operation of power plants for city and inter-urban service; line and track construction, car equipment. Electric locomotives for special service, electricity in mining, ventilating, hoisting, etc. Station economics. T., W., F., at 10. Second term.

EXPERIMENTAL CAR.—By the courtesy of the Montreal Street Railway Company, a special testing car, completely equipped for investigating the problems of tramway work, is available.

6. Electrical Engineering Laboratory:

(a) Includes such tests of direct current dynamos, motors, boosters, motor-generators, dynamotors, converters, open and closed coil constant current machine, and arc and incandescent lamps as illustrate the principles of their action. T., Th., 2-5. First and Second term.

(b) Includes similar tests upon alternators; synchronous motors, compensators and converters; transformers, potential regulator, reaction coils, frequency and phase-changing apparatus, etc. M., W., F., 2-5. First and Second terms.

7. Te'egraphy and Telephony. Single, duplex, quadruplex and multiplex telegraph systems, telephone systems, current generation for telegraph and telephone work, central telegraph and telephone stations. Line construction and testing. Special systems of signalling. One lecture per week at time to be arranged. First term.

## Graduate Courses.

8. Special problems in the theory and practice of alternating current working. Two lectures per week at time to be arranged. First and Second terms.

9. Advanced Laboratory Investigations. Special research work by students having necessary previous training.

10. Electrical Engineering Seminar. Weekly meetings are held, at which students present carefully prepared papers upon current engineering literature and special topics in connection with their studies or their laboratory work.

TRANSMISSION AND DISTRIBUTION OF POWER.

(See page 121.)

## 7. MECHANICAL ENGINEERING.

Professor:--R. J. DURLEY, B.Sc., Ma.E., A.M.Inst. C.E. (Workman Professor of Mechanical Engineering.)

Lecturer:-H. M. JAQUAYS, M.A., M.Sc., A.M.Can.Soc. C.E.

Demonstrator.—.....

This course embraces four subjects of study, as follows:-

I. DESCRIPTIVE MECHANISM AND KINEMATICS OF MACHINERY.

A course of lectures, illustrated by the lantern, is given in the second 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.

The science of Kinematics applied to machinery is then taken up. Reuleaux's principles and classifications are followed, and illustrated by the fine and unique collection of models in the Museum. The synopsis of the course includes the following subjects: Definition of a machine. Lower Pairs. Kinematic chains and trains. Centrodes. Restraint. Higher Pairs. Force and chain closure. Dead points. Notation Analysis of the quadric crank chain, the slider-crank chain, the double-slider crank chain. Chamber crank and wheel trains. Kinematic synthesis.

#### 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 mechanism, 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 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



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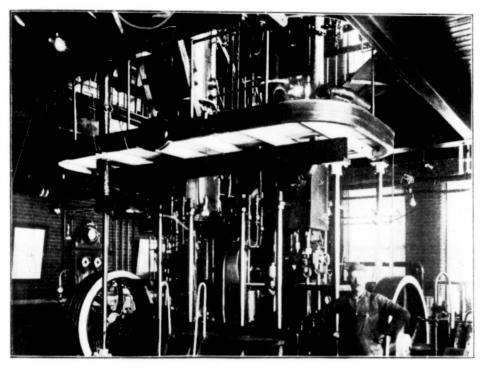
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A graduate c langed for, and Experimental machinery. The inter-relation between fly-wheel and governor. Dynamics of machine tools, of pumping and of forging machines. Graphic treatment of the dynamics of complicated machines. Knocking of steam engines.

#### 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 strength 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, such 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 slotting machine, an overhead traveling crane, an experimental pump, an air pump and other machinery have been taken up.

#### IV. MECHANICAL DRAWING.

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This course extends over three years:-

SECOND YEAR.—Elementary principles of mechanical drawing. Simple machine details. Sketching of machinery. Dimensioning, tracing and conventional coloring.

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.

## TRANSMISSION AND DISTRIBUTION OF POWER.

(See page 121.)

#### Graduate Course.

A graduate course in Mechanical Engineering has now been artanged 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.

## 8. MINING AND METALLURGICAL ENGINEERING AND ASSAYING.

## Professor:-JOHN BONSALL PORTER, E.M., Ph.D. (Macdonald Professor of Mining and Metallurgy).

#### Lecturer:-JOHN W. BELL, M.Sc. (Macdonald Lecturer in Metallurgy and Assaying).

## Demonstrator:-N. M. YUILE, B.Sc.

#### Fellow:-S. F. KIRKPATRICK, B.Sc. (Dawson Fellow in Metallurgy).

The work of the department does not begin until the third year of the regular course, and is chiefly carried on in the fourth year, as it is desirable that the students should have mastered the general principles underlying all engineering work before attacking the somewhat complex and highly specialized subjects of the professional courses.

I. Three introductory courses are given in the Third Year, as follows:--

MINING A.—Ore dressing. One lecture a week on the theory and practice of ore dressing and coal washing.—Treatment of ores underground and at the surface, hand picking, crushing and sizing, separating, vanning, jigging, etc.

Mill machinery and appliances; breakers, rolls, screens, jigs, vanners, tables, washers, buddles, magnetic separators, etc. (25 lectures.) Laboratory, see Mining B.

MINING B.—Laboratory course for A. Simple examinations and tests of ores, sands and gravels, by means of pan, vanning shovel, hand jig, magnet, classifier, etc., giving experience in prospecting and testing without the aid of machinery. (40 hours.)

METALLURGY A.—One lecture a week in general elementary metallurgy—including introduction, fuels, furnaces and refractory materials, typical metallurgical operations and reactions, and the metallurgy of the less important elements—zinc, tin, aluminum, etc. (25 lectures.)

II. Several advanced courses and options are given in the Fourth Year as follows:-

MINING C.—Or pecting, sinking, hauling, hoisting, and their prevent stores and dwellin

MINING D.—OI hours a week ir Metallurgical desi lurgical appliances

MINING E.—On of ores, adjustmer determination for tests, etc., etc. (1

METALLURGY B and Silver, etc. E stamp mill amalga cess, etc. Extrac cyanide process, s cupellation, partin

METALLURGY C. Steel, etc. Fuels, and steel and the r as in H. (25 hour:

METALLURGY D Lead, Silver, etc. 5 ing; mechanical c naces; matte fusielectro metallurgy

METALLURGY E Metallurgy, slag as in G. (12 hot

METALLURGY F. Furnaces, crucible and wet assay app preparation and cl Assays of gold an lion, and assays ( 75 hours laborato

METALLURGY G roasting, smelting materials. Flue g demonstrations. ssion, relensation,

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ntary metaly materials, metallurgy 25 lectures.) the Fourth MINING C.—One lecture a week on Principles of Mining.—Prospecting, sinking, drifting, developing, methods of mining, timbering, hauling, hoisting, drainage, lighting, ventilating, etc. Mine accidents and their prevention; general arrangement of plant, administration, stores and dwellings, etc. Mining law. (25 lectures—see also D.)

MINING D.—One lecture a week on Mining Machinery, and five hours a week in drawing room and laboratory on Mining and Metallurgical design. Mining and ore dressing machines and metallurgical appliances. (25 lectures and 110 hours in drawing room, etc.)

MINING E.—One day a week in the Ore Dressing Laboratory. Tests of ores, adjustment and use of machines. Horse-power and efficiency determination for different machines under varied conditions. Mul tests, etc., etc. (150 hours.)

METALLURGY B.—One hour for one term in Metallurgy of Gold and Silver, etc. Extraction of precious metals from tree 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, cupellation, parting, etc. Laboratory as in G. (25 hours lectures.)

METALLURGY C.—One hour a week on the Metallurgy of Iron and Steel, etc. Fuels, including calorimetry and furnace efficiencies. Iron and steel and the manufacture of structural material. With laboratory as in H. (25 hours lectures.)

METALLURGY D.—One hour a week on the Metallurgy of Copper, Lead, Silver, etc. Sampling and mixing of ores; calcination and roasting; mechanical calciners; smelting in reverberatory and shaft-furnaces; matte fusions; Bessemerizing, refining, etc. Wet methods; electro metallurgy. Laboratory as in G. (25 hours lectures.)

METALLURGY E.—One hour a week for one term on advanced Metallurgy, slag calculations, pyrometry, etc., etc., with laboratory as in G. (12 hours lectures.)

METALLURGY F.—Fire Assaying Laboratory. Assaying appliances. Furnaces, crucibles, scorifiers, cupels, etc. Pulp and button balances, and wet assay apparatus. Sampling and preparation of ores for assay; preparation and choice of fluxes and reagents, charges, methods, etc. Assays of gold and silver ores. Assays of lead ores. Parting of bullion, and assays of base bullion. Demonstrations and lectures, and 75 hours laboratory work.

METALLURGY G.—Metallurgical Laboratory. Use of furnaces roasting, smelting, refining, etc. Pyrometry and tests of refractory materials. Flue gases and flue dust. 100 hours in laboratory, with demonstrations. METALLURGY H.—A short course in Metallurgical laboratory on calorimetry and elementary pyrometry, etc., in connection with C. (20 hours, with additional time in Gas Analysis Laboratory.)

Special Courses are also offered in second term of Fourth Year in Mineral and Metallurgical Chemistry, Electro Chemistry, Hydraulics and Advanced Thermodynamics. One of these several options must be taken. (12 to 25 lectures and laboratory work.)

Special courses in advanced work are also 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.

III. LABORATORIES.—The admirable laboratories of the University are of peculiar advantage to students in the Mining Course, and enable them not only to become acquainted 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 students do systematic work in the several workshops and laboratories. During the last part of the Third and the chief part of the Fourth Year, they spend a large proportion of their time in the working laboratories for Ore Dressing and Metallurgy. (See § XIV.) 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 demonstrators, and assisted by the other students, each of whom he must in turn 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.

IV. ILLUSTRATIONS, MUSEUMS, SOCIETIES, ETC.—In addition to a large series of lantern slides, the department already owns a collection of over 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 contains 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.

V.-EXCURSIONS are made by the classes, from time to time, to such metallurgical works and mining establishments as are within reach.

VI. SUMMER Sc tuted last year is Mining in regula vacation between from the Second t

The school was Company in Cape Mines in Nova S region of Pennsyl Philadelphia. In

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ly to read from time profession. me, to such thin reach. VI. SUMMER SCHOOL.—The summer vacation class in Mining instituted last year is now a fixed part of the course. All students of Mining in regular course are required to attend this class in the vacation between the Third and Fourth Years, and students passing from the Second to Third Year are advised to do so also.

The school was held in 1898 at the mines of the Dominion Coal Company in Cape Breton, and at the Richardson and Hurricane Gold Mines in Nova Scotia. In 1899 it will be in the anthracite mining, region of Pennsylvania, and in the great iron and steel works near Philadelphia. In 1900 some other mineral locality will be visited.

The purpose of the school is to show the students by actual example the relations that obtain between theory and practice in engineering, and to acquaint them sufficiently with the methods and details of practical mining work to enable them to appreciate the technical details of the final year's teaching.

About six weeks are spent by the class in visiting mines and furnaces, and studying their operation. The processor of mining and his assistant go with the class, and give daily explanations and demonstrations. The students take notes and sketches, and at the end of the school each student writes up these notes in the form of a report, and these reports are accepted as the Summer Essays required by the Faculty.

Aid to Students.—The instruction given during this summer course is free to all mining students, and the only expense to them is the cost of board, lodging and railway fares, and every effort is made to keep these expenses as low as is practicable.

As some students may have difficulty in finding even this sum in addition to the cost of the regular course, a fund has been provided by Sir William Macdonald, and deserving students who require aid can have money advanced them by applying to the professor of mining.

## 9. CHEMISTRY AND ASSAYING.

Professors: B. J. HARRINGTON, M.A., Ph.D. (Greenshields Professor of Chemistry and Mineralogy).

> J. WALLACE WALKER, M.A., Ph.D. (Macdonald Professor of Chemistry).

Lecturers:

{ Nevil Norton Evans, M.A.Sc.

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Demonstrators:

Students in all the departments of Applied Science are expected to take up the study of Chemistry in the Second Year, having previously acquired a knowledge of some branches of Physics in the First Year of their course. They attend a course of lectures, supplemented by tutorial classes, on the laws of Chemical Combination, Chemical Formulae and Equations, the preparation and properties of the more important Elements and their Compounds, etc. They must also devote at least one afternoon a week throughout the session to practical work in the laboratory, where they learn the construction and use of ordinary apparatus, and perform a series of experiments designed to cultivate the powers of observation and deduction. Many of the experiments involve accurate weighing, and for this purpose the elementary laboratory is well supplied with balances. During the second term considerable attention is also devoted to the subject of Qualitative Analysis.

The lectures in the Third Year comprise:-

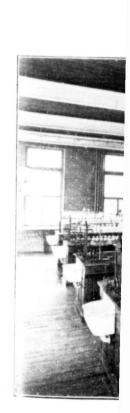
(a) A course dealing mainly with the methods and reactions employed in chemical analysis, being explanatory of the work done in the laboratory. One lecture a week during the session. (b) A course on the Metals and some of their more important compounds, consisting of two lectures a week during the first term. (c) An elementary course on Organic Chemistry, consisting of two lectures a week during the second term. (d) A course on the composition and analysis of Iron and Steel. One lecture a week during the second term.

The laboratory work of the Third Year comprises an extensive course of Qualitative and Quantitative Analysis, including in the latter case gravimetric, volumetric and electrolytic methods. The analysis of Iron and Steel will be taken up during the second term.

Lectures in the Fourth Year include a systematic course of Organic Chemistry, and a course on Physical Chemistry, each consisting of two lectures a week. In the lectures on Organic Chemistry special attention is paid to the commoner substances which find an application in the Arts. The lectures on Physical Chemistry are divided into two parts. In the first term they include a study of such physical properties of gases, liquids and solids as are known to depend upon their chemical constitution, Thermo-chemistry, and the law of Mass Action. The second term is devoted to Electro-Chemistry, theoretical and applied. The lectures will be based upon the application of the gaseous laws to solutions. This will be followed by descriptions of the most recent applications of Electricity to the production of Metals and Chemicals.

Laboratory work in the Fourth Year will be arranged to suit the requirements of students. Those intending to prosecute organic work will take up a complete course of Organic Preparations and Analysis, but they must also spend some time on the essential physico-chemical methods; while students of Physical Chemistry must spend enough time in the Organic Laboratory to become familiar with the chief

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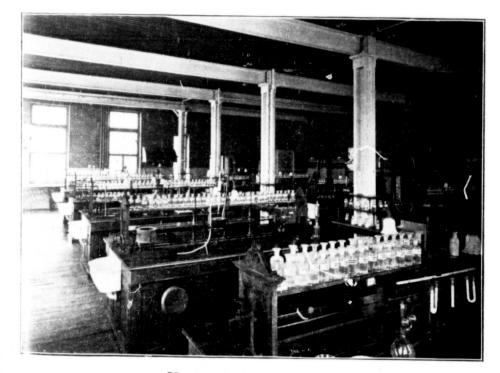
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Macdonald Chemistry Building A Lecture Theatre.



Macdonald Chemistry Building A Laboratory.

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Laboratory cours to make a specialty such as the Chemi Papermaking, and

# Lecturer:-R. J.

Demonstrator:-

Fundamental law to perfect gases an of perfect heat eng steam engines.

A study of the condensation and j mical point of cutdouble and triple e pected indicator d types of steam ge steam and caloric e

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Professors:-

Demonstrate

The courses are

THIRD YEAR .--

GENERAL GEOLC the whole fiel course on Min methods of organic work. Those intending to devote themselves ta Mineral Chemistry will omit the Organic Chemistry, but must study the more important Physico-Chemical methods, and devote a large amount of time to advanced Mineral Aanalysis. All students in the Chemistry Course must take up Water and Gas Analysis during the first term. Mining students devote two afternoons a week to assaying in the wet way, and attend a short course in Gas Analysis. Fire Assaying is done in the Mining Department.

Laboratory courses will also be provided for students who wish to make a specialty of any particular branch of Industrial Chemistry, such as the Chemistry of Oils, Iron and Steel Analysis, Bleaching, Papermaking, and manufacture of Chemicals, etc.

#### **10.** THERMODYNAMICS.

Lecturer:-R. J. DURLEY, B.Sc., Ma.E., A.M.Inst. C.E.

Demonstrator:-H. M. JAQUAYS, M.A., M.Sc., A.M.Can. Soc. C.E.

Fundamental laws and equations 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 economical 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 of Steam.

#### 11. GEOLOGY AND MINERALOGY.

## Professors:-B. J. HARRINGTON, M.A., Ph.D. FRANK D. ADAMS, M.A.Sc., Ph.D.

Demonstrator:-OSMOND E. LEROY, B.A.

The courses are arranged as follows:-

THIRD YEAR .--

GENERAL GEOLOGY.—The lectures will embrace a general survey of the whole field of Geology, and will be introduced by a short course on Mineralogy. Especial attention will be devoted to Dynamical Geology and to Historical Geology, including a description of the fauna and flora of the earth during the successive periods of its past history, as well as to the economic aspects of the subject.

The lectures will be illustrated by the extensive collections in the Peter Redpath Museum, as well as by models, maps, sections and lantern views. There will be an excursion every Saturday until the snow falls, after which the excursion will be replaced by a demonstration in the Museum.

Text-Book.—DAWSON, Hand-book of Geology. Books of Reference.—DANA, Manual of Geology; Scott, An Introduction to Geology.

- 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.
- **DETERMINATIVE** MINERALOGY.—Laboratory practice in blowpipe analysis and its application to the determination of mineral species.

FOURTH YEAR:-

- MINERALOGY (In continuation of the course in Third Year)—Description of species, particu'ar attention being paid to those which are important as rock constituents and to the economic minerals of Canada.
- **PETROGRAPHY.**—The modern methods of study employed in Petrography are first described, and the classification and description of rocks is then taken up.

In addition to the lectures, one afternoon a week during the second term will be devoted to special microscopical work in the Petrographical Laboratory.

Text-Book.-HARKER, Petrology for Students.

**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.

Text-Books.—GEIKIE, Outlines of Field Geology; KEMP, Ore Deposits of the United States; PHILLUPS and LOUIS, A Treatise on Ore Deposits.

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y; KEMP, Ore IS, A Treatise CANADIAN GEOLOGY.—A general description of the Geology and Mineral Resources of the Dominion.

PETROGRAPHICAL LABORATORY.—See § XIV., 15.

GEOLOGICAL COLLOQUIM.—A discussion each week during second term 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.

PALÆONTOLOGY.—(For students taking Honours.) Special studies of some of the more important groups of fossils.

Books of Reference.—NICHOLSON and LYDEKKER, Manual of Palaeontology; ZITTEL, Text-book of Palaeontology.

NOTE.—Students of the Mining and Chemistry courses take all the Mineralogy of the Third Year. Mining Students take all Courses of the Fourth Year. Chemistry Students take, in addition to the Geology of the Third Year, the Mineralogy of the Fourth Year.

The Petrographical Laboratory is open to Fourth Year Mining Students during the second term.

#### 12. EXPERIMENTAL PHYSICS.

Professors:— JOHN COX, M.A. (Macdonald Professor of Physics). E. RUTHERFORD, M.A., B.Sc. (Macdonald Professor of Physics).

Demonstrators:-ROBERT O. KING, B.A.Sc.

J. W. FRASER, B.Sc.

R. M. McClung, B.A.

The instruction includes a fully illustrated course of Experimental Lectures on the general Principles of Physics (embracing, in the Second 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.

LABORATORY COURSE.—Three hours per week spent in practical measurements in the Macdonald Physical Laboratory in conjunction with the lecture courses.

Sound.-Velocity of Sound; determination of rates of vibration of tuning forks; Resonance; laws of vibration of strings.

Light.—Photometry; Laws of Reflection and Refraction; focal lengths and magnifying powers of mirrors, lenses, telescopes and

microscopes; the sextant; spectroscope, spectrometer, diffraction grating, optical bench, polariscopes.

*Heat.*—Construction and calibration of thermometers; melting and boiling points; air thermometer; expansion of solids, liquids and gases; cale rimetry; pyrometry.

Magnetism and Electricity.—Measurements of pole strength and moment of a magnet; the magnetic field; methods or deflection and oscillation; comparison of moments and determination of the elements of the earth's magnetism; frictional electricity.

*Current Electricity.*—A complete course of measurements of current strength, resistance and electromotive force; calibration of galvanometers; the electrometer; comparison of condensers; electromagnetic induction.

SECOND YEAR.—Electrical Engineering Students are given an extra laboratory period of 3 hours per week, which allows of a more extended and complete course of experimental work.

THIRD YEAR.—Student of Electrical Engineering will continue their work in the Physical Laboratory in the Thir dYear. The following is a brief outline of the course:—

Magnetic 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 consideration.

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.

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

Radiation and conduction of heat with special methods and apparatus. Dynamical theory of gases. Viscosit<u>:</u> ture.

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Viscosity. Surface Tension. Variation of properties with temperature.

Light.—Photometric standards. Spectro-photometry. Theory of colour vision. Spectroscopy and spectrum photography. Compound prism spectrometers. Six inch and  $2\frac{1}{2}$  inch Rowland Gratings. Study of spectra of gases. Fluorescence and anomalous dispersion. Polarimetry. Landolt and other polarimeters. 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 Magnetism.—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 Ballistic methods. Temperature variation of resistance and E.M.F. Thermo-electric 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. Electro-magnetic optics. Alternating currents of high irequency and voltage. Electrical waves and oscillations. Discharge of electrification by Röntgen rays, ultra-violet uranium and thorium radiations.

N.B.—Students taking a Graduate Course will receive guidance in any advanced Mathematics required in connection with their work.

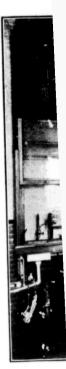
### 13. MATHEMATICS AND MATHEMATICAL PHYSICS.

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

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large amount of apparatus, such as balances, Atwood's machines, inclined planes, chronographs, rotation apparatus of various kinds, etc. The different methods of approximation and the reduction of results of experiments and observations 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.

#### 14. ENGLISH LANGUAGE AND LITERATURE.

Professor:--C. E. MOYSE, B.A. (Molson Professor of English Language and Literature).

Lecturer:—.. .. .. .. .. .. .. .. .. ..

A special course in English Composition is prescribed for all students in the First Year. The general aim of this Course is to train the students to express themselves in good English, and to cultivate in them readiness and accuracy of perception in matters of thought and style. Essays on current events and on popular and literary subjects, based on selections from the writings of well-known authors, are written weekly.

VACATION WORK.—During the vacation, students entering the Second Year are expected to read certain selected standard works in literature and fiction, and are required to pass an examination based upon a knowledge of the textual matter of such works. The marks obtained in this examination will be reckoned in determining s machines, tious kinds, eduction of le attention.

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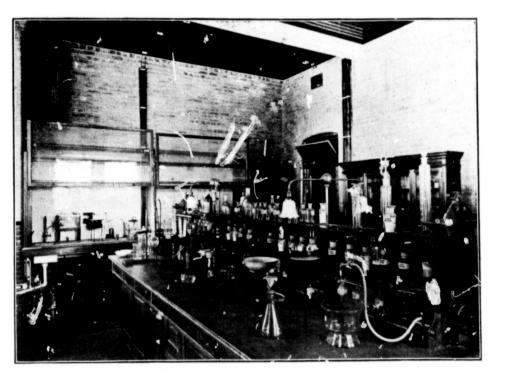
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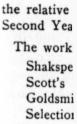
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Macdonald Chemistry Building. A Research Laboratory.



Macdonald Mining Building. The Assay Room.



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The building of electric fa attic. The e purposes, etc The rooms the air introduce steam coils. rooms are all by tin pipes f the relative standing at the sessional examinations at the end of the Second Year.

The works selected for the vacation of 1899 are:-

Shakspere's Tempest, ed. Deighton (Macmillan); Scott's Waverley; Goldsmith's Vicar of Wakefield; Selections from the Spectator, edit. by Deighton (Macmillan).

### 15. 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 METALLUR-GICAL LABORATORIES.

2. ASTRONOMICAL OBSERVATORY. See GEODETIC LABORATORY.

3. CEMENT LABORATORY. See TESTING LABORATORIES.

4. CHEMICAL LABORATORIES.—In September last the Chemical work was transferred to the new Macdonald Chemistry and Mining Building, where admirable facilities are afforded for study and research in the various departments of Chemistry. The building is spacious, well lighted, and ventilated by means of electric fans, one placed in the basement and two in the attic. The electric current for these, as well as for lighting purposes, etc., is obtained from the Engineering Building. The rooms throughout are heated by hot water, and the fresh air introduced into the building is heated by passing it over steam coils. The principal laboratories and preparation rooms are abundantly supplied with distilled water brought by tin pipes from a tank in the attic. The main lecture theatre, extending through two storeys, is entered from the ground floor, and seats nearly 250 students. The acoustic properties of the room have proved excellent. The lecture-table is supplied with coal-gas, oxygen and hydrogen, electricity, water, vacuum, down-draught, etc., and can be well seen from all parts of the room.

Besides the main lecture theatre there are three smaller class-rooms, accommodating from 40 to 60 students each.

The three principal laboratories have each a floor-space of about 2,400 square feet, and together have accommodation for nearly two hundred students working at a time. They are lighted on three sides, and have ample hood space. One is intended for beginners, and the others for more advanced work, more particularly in qualitative and quantitative analysis. In connection with each of the main laboratories is a balance-room, equipped with balances by several of the best makers.

Physical Chemistry is provided for in a special laboratory, nearly 30 by 40 feet, lighted from the north, and supplied with electricity, steam, vacuum pumps, etc. The equipment of this department consists of the apparatus necessary for the determination of the specific gravities of solutions, of the depression of freezing point, and the rise of boiling point, of the densities of gases and vapours. There are constant-temperature baths for accurate measurement of solubilities, Konlrausch's apparatus for determining the electrical conductivity of solutions, and the apparatus necessary for measuring the electromotive forces generated between metals and their solutions, and in There are also calorimeters for meavoltaic cells generally. suring the heat effects produced in chemical reactions. There is on the same floor an optical room furnished with refractometers for measuring the refractive indices of solutions, goniometers, polariscopes and spectroscopes. Other forms of apparatus will be added as required for research work,

Immediately adjoining the laboratory of Physical Chemistry is the Photographic department, supplied with two dark rooms, arranged on the maze system, and supplied with the necessary appliances for all ordinary photographic work, including an enlarging camera. Apparatus for micro-photography will shortly be added to the equipment.

The laboratory for gas analysis has a northern exposure, and is fitted with a large tank to contain water at the temperature of the room,

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for use in obtaining a constant temperature in the measurement of gases. The tables are arranged for work with mercury, and the laboratory is supplied with the apparatus of Hempel, Dittmar, Orsat, Elliot, and others. It contains also Fleuss, Boltwood and Töpler pumps for producing high vacua.

The laboratory for electrolytic analysis is supplied with accumulators, thermopile, platinum electrodes, rheostats, ammeters, voltmeters, etc.

Another room is shortly to be equipped with electric furnaces and other appliances for electro-chemical work.

The organic department comprises a laboratory for preparations and research, a combustion room for analysis, a dark room for polariscope and saccharimeter work, and a lecture room. The laboratory is fitted with all the necessary apparatus for organic research—special hoods for work with poisonous gases, regulating ovens for digesting and drying at various temperatures, filter presses for the extraction of raw materials, and various forms of apparatus for distillation in vacuo. The dark room is equipped with polariscopes and saccharimeters for sugar work. And there is a large supply of the necessary organic chemicals, which are supplied free of charge to students engaged in routine or research work in this department.

The laboratory for determinative mineralogy has places for 28 students, and is supplied with abundant material for practical work. It adjoins the lecture-room, in which the lectures in advanced mineralogy are delivered. The mineralogical department is also provided with suitable machinery, run by electricity, for use in the cutting and polishing of minerals and rocks.

The Library contains a valuable collection of the most recent English, French and German books, and sets of various journals and transactions, including the Berichte der Deutschen Chemischen Gesellschaft, Journal für praktische Chemie, Chemisches Central-blatt, Fresenius Zeitschrift für Analytische Chemie, Annales de Chemie et de Physique, Journal of the Chemical Society, Chemical News, Mineralogical Magazine, Mineralogische und Petrographische Mittheilnugen, etc. The library is open to students under such restrictions as are necessary to prevent damage or loss of books.

The rooms for allied purposes have, as far as possible, been grouped together on the same floor, and there is a hydraulic lift running from the basement to the attic. The offices and principal laboratories and supply rooms are also connected by a system of telephones. The building is practically fire-proof.

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5. DYNAMICS, LABORATORY OF. See MATHEMATICS and DYNAMICS, LABORATORY OF.

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6. ELECTRICAL LABORATORIES.—These have been completely remodelled during the past year, and now contain all principal types of commutating, synchronous and induction machinery, together with ample facilities for investigating their action. The several laboratories are the Standardizing Laboratory, the Dynamo Laboratory and laboratories for special investigation.

(a) The Standardizing Laboratory is equipped with four Kelvin balances for current measurement, best range, .025 to 600 amperes, a Weston laboratory standard ammeter, range with shunts o-600 amperes, a Weston laboratory standard voltmeter, range with multipliers o-3000 volts, special Weston alternating current voltmeters, special potentiometer with standard cells, means for measuring high and low resistances, dielectric strength of insulating materials, etc.

Direct current for the laboratories is furnished either from the generating unit in the service plant, a special motor-dynamo whose voltage can be varied from 0—10 volts, current capacity 300 amperes, a 75 k.w. hour storage battery arranged in sections, and from any machine in the dynamo laboratory. Alternating current of several wave shapes and of frequencies up to 150 periods per second, and of voltages up to 200,000 is available. A special transformer having a current capacity of 800 amperes is used for alternating current ammeter calibration.

(b) The Dynamo Laboratory. This laboratory consists of two sections; a section devoted to direct current work, and a section devoted to alternating current work. The previous method of driving from an overhead line shaft and clutch pulleys has been abandoned, and individual motors supplied for each dynamo. Each motor is provided with suitable series turns and variable shunt, the whole being connected to act with or against the shunt turns, as compounding or a differential effect is desired. The speed of the motors can be varied about 50 per cent. by field rheostat. This

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gives perfect control of dynamo speed. Current for operating is obtained from six independent sources of supply; one 75 k. w. direct connected unit in services plant, three sets of 25 k. w. hour chloride accumulators, and two city supply circuits. All dynamos and motors are mounted on strong testing benches fifteen inches high, with slotted floor so that any machine can be placed anywhere on the bench and secured in place. Two small travelling cranes over the benches allow machines to be easily shifted. All wiring is done in conduits under the floor, and large sectional switchboards are provided for current distribution about the laboratories. Special testing tables permanently wired up and fitted with circuit breakers, switches, etc., facilitate the work. Twenty-five commutating machines, generators, motors, boosters, motor-generators, dynamotors, converters, closed and open coil arc machines, varying in capacity from a fraction of a kilowatt to 75 kilowatts of many different types and makes are provided for direct current testing. Twelve alternating current machines, including generators, synchronous motors, compensators, and synchronous converters, together with a large amount of stationary and rotary induction apparatus, are provided for alternating current work. Several of the alternating current dynamos are of the inductor type, and several different shaped inductors are provided with each machine to give different wave forms. Also a specially arranged induction motor serves as a frequency changer.

The laboratory is also provided with between sixty and seventy voltmeters, ammeters and wattmeters of standard make and of different ranges, condensers, rheostats, standard resistances, etc.

(c) Special Laboratories. A laboratory for special investigations adjoins the standardizing laboratory, and a large battery room, and room for photometric work, are also provided.

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,

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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 aumitted 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 does the ordinary instruments for the purpose to be found in most physical laboratories, together 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 are carried out on the efficiency of belts, shafting, and machine tools. Governors are tested with the chronograph, and lubricants by journal friction-testing machine. Sliding and rolling friction and the stiffness of ropes 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 3,000th of a lb. per (a) An as

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square inch, two other draft gauges, a belt transmission dynamometer, a belt-testing, and other 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 LABORATORIES.

10. MILLING ROOM. See MINING and METALLURGICAL LABORATORIES.

II. GEODETIC LABORATORY.—The equipment of this laboratory 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.
- (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 Bessel'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

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the temperature within may be brought to, and held at, any desired degree.

The ordinary course of instruction in this laboratory is described in § XIII., 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.
- 2. A Troughton & Simms' zenith telescope.
- 4. An astronomical transit in the prime vertical.
- 5. Sidereal and mean time clocks and chronometers.
- Chronograph and electrical circuits by which observations and 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:-

(a) 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 rapidly 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 280 ft.

(b) 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.

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(c) A Rife's Hydraulic Ram.

(d) 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 .001 inch, the dimensions of a jet in any plane and at any point of the path.

(e) Numerous orifices, nozzles, and mouth-pieces.

(f) 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.

(g) A flume about 35 feet in length, by 5 ft. in width by 3 ft. 6 ins. in depth.

(h) 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.

(i) Numerous hydraulic pressure-gauges.

(j) A mercury column 60 feet in height.

(k) Gauge-testing apparatus.

(l) Various rotary, and piston meters, and a Venturi meter.

(m) Apparatus for illustrating vortex motion.

(n) Apparatus for illustrating vortex ring motion, and for determining the critical velocity of water flowing through pipes.

(o) Five specially built gauging tanks with suitable indicators, each having a capacity of 800 cubic feet. Also other portable tanks.

(p) Transmission and absorption dynamometers.

(q) An experimental centrifugal pump, which can be tested with varying heights of suction and discharge.

(r) An inward flow turbine, a new American turbine, a Pelton, and other motors and turbines.

(s) 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 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.

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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 purposes of determining the co-efficients of discharge through conical nozzles.

Similar experiments and also experiments 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.

13. MINING AND METALLURGICAL LABORATORIES.—The Macdonald Chemistry and Mining Building is now completed, and the Mining and Metallurgical Laboratories, situated in the lower part of the structure, are fully equipped.

These laboratories, with the lecture rooms and ubrary, 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 the main building and the whole of both wings. The total floor space covered is approximately 15,000 square feet, divided as follows:—

Mining and Ore-Dressing Laboratory, or Milling Room, 3,500 square feet; Metallurgical Laboratory, or Furnace Room, 3,000 square feet; Assay Laboratory, 2,500 square feet; Wet Assaying Rooms, 500 square feet; Technical Lecture Room, 750 square feet; Library and Drawing Room, 750 square feet; Offices, Stores and so forth, 4,000 square feet.

The two rooms first mentioned are of great size, and are the chief laboratories of the department. In these it is possible to take any ch. They are s. per sq. in., icable. The inger pumps haft. They is arranged oved and revith a double igned in the With these, and discharge ictuations of recorded.

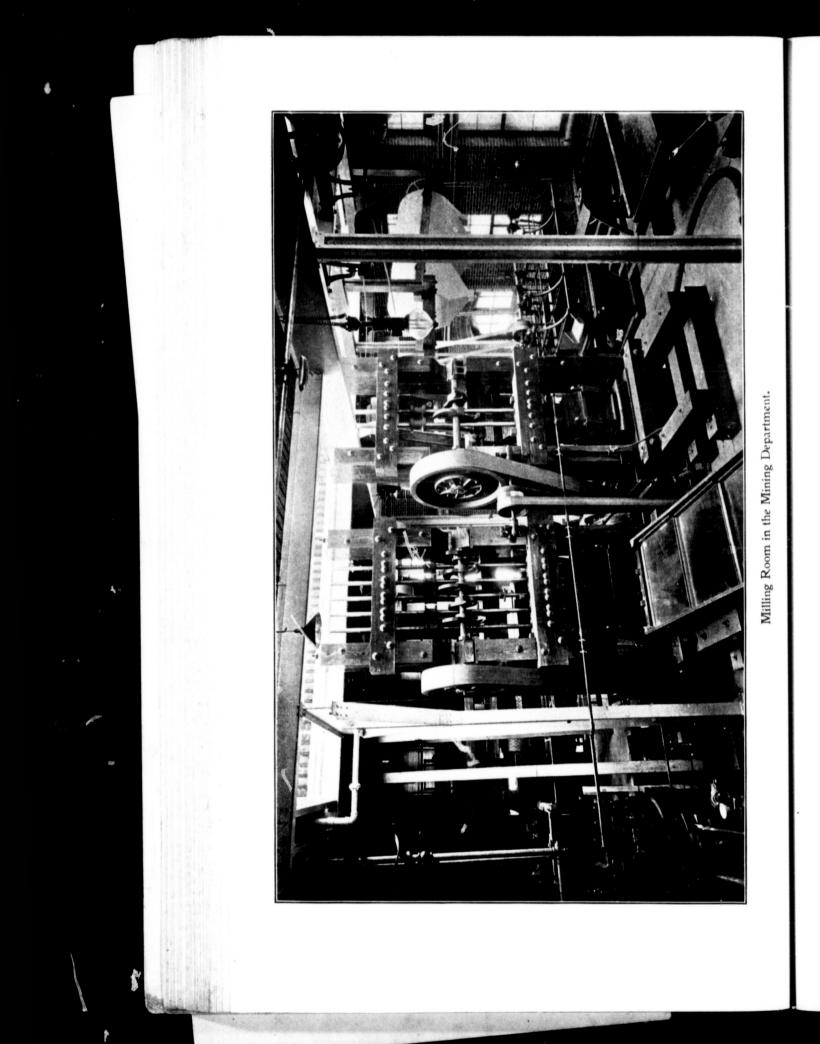
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ores of gold, silver, copper or lead in the condition in which they come from the mines, and to treat them from beginning to end precisely as they are treated in the ore-dressing works and smelting plants of the mineral regions. They may therefore be considered as constituting a small commercial plant for the actual production of metals. They differ from commercial plants, however, in that an ordinary ore-dressing establishment or smelter 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 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 is equipped with a complete working plant, capable of treating, if necessary, 10 to 20 tons of ore per day, the chief pieces of apparatus being:—Rock Crushers of three kinds ("Blake," "Dodge" and "Comet"), to break the large pieces of ore to small size. Stamp mills of 500 and 950 lbs., respectively, for the fine crushing and amalgamating of gold ores. Huntington mill, for crushing and amalgamating. Rolls, both coarse and fine, to reduce ores to powder when necessary. Trommels and sieves for sizing the crushed ores. Adjustable Hartz, Collom and slide jigs. with 2 and 4 compartments, for concentrating minerals by gravity. Revolving, bumping, and belt tables, Frue vanner, Wilfley table, etc., for separating valuable minerals contained in fine sands and crushed rock. Plates, pans and barrels for amalgamating gold and silver ores. Spitzkasten, spitzlütten, magnetic separators, coal washers, buddles and various other special pieces of ore-dressing apparatus.

The machinery above mentioned is not in miniature; it is of full size, such as the graduates will afterwards find in use in working establishments, and is provided with hydraulic lift, belt and bucket elevators, hand trucks, etc., etc. It is, however, so arranged that each piece can be worked by itself, and taken apart and cleaned up; and such of the larger pieces as cannot be used for small quantities of material are duplicated in miniature by working models for handling small lots of material. 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 motive power used in the laboratories is electricity, generated in the University power and light station, and utilized through a number of electric motors conveniently placed near the machines to be operated. The department is equipped with the most approved apparatus for electrical measurements, and is thus able to make constant and accurate determinations of the amount of power used by each machine, and for any especial condition of use.

THE METALLURGICAL LABORATORY is fitted with a water-jacket blast-furnace, 24 ins. inside diameter, with the necessary blast apparatus for smelting lead and copper; also with a hand reverberatory furnace, a Bruckner-cylinder furnace, an English cupellation-furnace, and several crucible furnaces.

It has also a lead-lined chlorination barrel for high pressures, with filter press, air pump, etc., and several small vats, barrels, etc., for the chlorination and leaching of silver and other ores, also both large and small cyanide extraction plants for gold ores, these being the new methods which are revolutionizing the gold metallurgy of the world and producing such extraordinary yields in the mines of South Africa, the United States and Australia.

In addition to the above named apparatus, the department is being fitted with an electric furnace; and, with a full equipment of electric pyrometers of both the La Chatellier and Callendar types. It also has a Mahler calorimeter and several other less elaborate calorimetric instruments.

The two main 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, etc., etc., from which clear level passages lead to the elevators and connect with the crushers and furnaces. There are also several overhead hoists and travellers. 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; and, owing to their thoroughly practical nature, instruction given in them will be of immensely geater value to the students than could be the case if the work were done only in miniature. 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 equipped with a large soft coal assay furnace, and with a complete set of small muffle and crucible furnaces, some of each being arranged for gas and gasoline, and others for coke and charcoal, as in some parts of the Dominion one of these fuels must be used, whil ea with this ances, and o chemical woi The course XIII, 8.

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be used, while in other parts another is found more desirable. Connectea with this laboratory is a room with pump, bullion and assay-balances, and others equipped for wet analysis of ores, and the other chemical work required in connection with the main investigations. The courses of instruction in these laboratories are described in § XIII, 8.

14. MODELLING.—A Laboratory for modelling in clay is arranged as part of the work in the Architectural Department. Third and Fourth Year Architectural Students follow a regular course in Modelling under the instruction of the Assistant Professor of Freehand Drawing.

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 is about to be transferred to the new Chemistry and Mining building. 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, Crouch, and Fuess, as well as with models, sets of thin sections, electro-magnets, heavy solutions, etc., for petrographical work.

A collection of typical rocks has been especially prepared for the use of students, and a complete equipment of diamond and emery saws, grinding laps, etc., running by electric power, has been installed, which gives excellent facilities for the preparation of thin sections for microscopic use.

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 Macdonald 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 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 basement contains the cellars, furnaces, and janitor's department at the west end of the building. The machine room—containing a small gas engine and dynamo, which are fitted for testing, but can also be used for light and power, a motor-alternator and a motordynamo—is situated at the extreme western corner of the basement so as to be as far removed as possible from the uelicate magnetic and electrical instruments. Here is also the switch-board for controlling the various circuits for supplying direct or alternating current to different parts of the building. The Accumulator Room contains a few large storage cells, charged by the motor-dynamo, which are fitted with a suitable series-parallel arrangement, and with rheostats for obtaining and controlling large currents up to 4,000 amperes for testing ammeters and low resistances, etc.

The Magnetic Laboratory contains magnetic instruments and variometers of different patterns, and also a duplicate of the B. A. Electro-dynamometer, which has been completely remodelled and set up with great care for absolute measurements of current. The Laboratory, on the opposite side of the basement, contains a very nne Lorenz apparatus for the absolute measurement of resistance, constructed under the supervision of Prof. Viriamu Jones. It also contains a set of Ewing Seismographs and a pair of Darwin Recording Mirrors for measuring small movements of the soil.

There is a Constant Temperature Room, surrounded by double walls, which contains a Standard Rieffler Clock, and is fitted for comparator work.

The Ground Foor contains at the western corner a small machine shop, fitted with a milling machine and suitable lathes and tools, driven by electric motors, and such appliances as are required for the making and repairing of the instruments, for which the services of a mechanical assistant are retained. There is also a store room for glass, chemicals and cleaning materials, and extensive lockers and lavatories for the use of the students.

The Main Electrical Laboratory is a room 60 feet by 40, and is fitted with a number of brick piers, which come up through the

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floor, and rest on independent foundations, in addition to the usual slate shelves round the walls. This room contains a large number of electrometers, galvanometers, potentiometers and other testing instruments of various patterns, and adapted for different uses. It connects with a smaller room at the side, in which are kept the resistance boxes and standards, and also the capacity standards. A small research laboratory, adjoining the electrical laboratory, is fitted up for the study of electrical discharge in high vacua, and for work with Röntgen and uranium radiation, and with ultra-violet light.

The First Floor contains the Main Lecture Theatre, with seats for about 250 students. The lecture table is supported on separate piers, which are independent of the floor. Complete arrangements are provided for optical projection and illustration. The Preparation Room in the rear contains many of the larger pieces of lecture apparatus, but the majority of the instruments, when not in use, are kept in suitable cases in the adjoining apparatus room. On the same floor there is the Heat Laboratory, devoted to advanced work in Thermometry, Pyrometry and Calorimetry, and also to such electrical work as involves the use of thermostats and the measurement of the effects of temperature. There are also two smaller rooms for Professors and Demonstrators.

The Second Floor is partly occupied by the upper half of the Lecture Theatre. There is also an Examination Room for paper work, a Mathematical Lecture Room, with a special apparatus room devoted to apparatus for illustrating Mathematical Physics, and a special Physical Library chiefly devoted to reference books and periodicals relating to Physics. A store room, lavatories and Professors' room occupy the remainder of the flat.

The Third Floor contains the Elementary Laboratory, a room 60 feet square, devoted to elementary practical work in Heat, Sound and Electricity and Magnetism. There is a Demonstrator's room adjoining, and an optical annex devoted to experiments with lenses, galvanometers, etc., which require a darkened room. On the other side of the building there is a spectroscopic room containing a six-inch Rowland grating, with mountings by Brashear, and other large spectrometers and polarimeters. Also a series of smaller optical rooms, including a photometric room, specially fitted for Arc photometry, and a dark room for photographic work. Communication between the different flats is facilitated by means of a hydraulic elevator. The building is lighted throughout by electricity, and heated by hot water. The walls are of pressed brick, and the floors of hard maple. There is a ventilating system, consisting of Tobin tubes and suitable exit flues, assisted by a fan in the roof.

17. TESTING LABORATORIES.—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:—

(a) A Wicksteed 100-ton and an Emery 75-ton machine for testing the tensile, compressive and transverse strength of the second materials of construction. To the former has been ad respecially designed arrangement, by which the transve rength of girders and beams up to 26 ft. in length mined. These machines are provided with the can be holders required for the various kinds of tests, and new holders 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.

(b) 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.

(c) An Unwin Torsion Machine with a specially designed angle-measurer, by which the amount of the torsion can be measured with extreme accuracy.

(d) An Accumulator, furnishing a pressure of 3,600 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.

(e) A Blake and a Worthington Steam Pump, designed to work against a pressure of 3,600 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.

(f) Ext other types enriched by designed ar (g) Por specially de the extension under stress (h) An Accumulate several mac (i) A dr hot air in t driven by ai (j) Num noticed an up to 2,50 machines ar with the Em ing recordin tically perfe (k) Spec of hose, etc. (l) Dyna: fabrics, the (m) App: (n) Appa of construct (o) Zeiss (**p**) Delic portant part able of indi .00001 lb. ur (q) Micro 18. CEME the strength

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(f) Extensioneters of the Unwin, Martens, Marshall and other types. The extensioneter equipment has recently been enriched by seven sets of improved extensioneter app ratus designed and made in the laboratory.

(g) 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.

(h) An automatic electric motor pump for actuating the Accumulator; also various electric motors for working the several machines.

(i) 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.

(*j*) Numerous gauges, amongst which may be specially noticed an Emery Pressure Gauge, graduated in single lbs. up to 2,500 lbs. per square inch. All of the testing machines are on the same pressure circuit, and are connected with the Emery gauge and also other standard gauges, including recording gauges. This arrangement provides a practically perfect means of checking the accuracy of the testing.

(k) Special apparatus and recording gauge for the testing of hose, etc.

(*l*) Dynamometers for measuring the strength of textile fabrics, the holding power of nails, etc.

(m) Apparatus for determining the elasticity of long wires.

(n) Apparatus for determining the hardness of materials of construction.

(o) Zeiss and other Microscopes.

(p) Delicate chemical and other Balances. A very important part of the equipment is the Oertling Balance, capable of indicating with extreme accuracy weights of from .00001 lb. up to 125 lbs.

(q) Micrometers of all kinds.

18. CEMENT LABORATORY.—The importance of tests of the strength of mortars and cements is very great. The equip-

ment of the Laboratory for the purpose is on a complete plan, including:—

(a) Three one-ton tensile testing machines, representing the best English and American practice.

(b) One 50-ton hydraulic compressive testing machine.

(c) Volumenometers for determining specific gravity and for determining the carbonic acid in the raw material.

(d) Faija steaming apparatus for blowing tests.

(e) Mechanical hand and power mixers.

(f) Apparatus for determining standard consistency.

(g) Vicats' and Gilmore's needles for determining set.

(h) Weighing hopper, spring and other balances.

(i) 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.

(*j*) 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 cement, both neat and with the sand.

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

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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 means of 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, one by Macintosh & Seymour, an Atkinson Cycle, an Otto gas engine, and a Sterling 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 mercury column apparatus for investigating the properties of superheated steam and other working fluids, draft gauges, pyrometers, fuel testers, indicators, planimeters and a Moscrop 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 be added to the Laboratory during next session.

In the boiler room there are available for research five distinct types of boilers, as follows:—One 50 horse power Cornish boiler, two 60 horse power Babcock Wilcox water tube boilers, one 120 horse power locomotive boiler, Belpaire type; one 120 horse power internally fired tubular boiler, by Robb of Amherst; and one 180 horse power Yarrow boiler, fitted in a closed stokehold for forced draft.

During the present session the following special researches were undertaken by various groups of Fourth Year students:--

- (1) Experiment on the laws of slide-valve leakage.
- (2) Experiments on the condensation of steam on a large scale by a new method.
- (3) On the forces acting on cutting tools, and on the leading screw in a lathe.
- (4) Economy trials, under varying conditions, of a small tandem compound steam engine.

# 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 Sir William Macdonald, and pronounced by Professor Reuleaux to be the finest and most complete collection in America.

ARCHITECTURAL EQUIPMENT.—The Architectural Department has been endowed by Sir Wm. Macdonald, 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 (illustrative of the historical development of the various styles) and of architectural and figure sculpture. The freehand-drawing classes for architectural students, as also the classes of architectural drawing and design, are conducted in this portion of the building.

A special architectural department has been added to the University Library, and numerous works of reference have been added to the Faculty Library, for the use of students in the classes of design. A collection of architectural photo-



A series of trials of the Robb Automatic cut-off engine and of the large experimental engine, working compound, with electrical thermometers, in the cylinder walls, at various speeds and ratios of expansion; as also a series of trials on the Robb and on the Locomotive

(5) The value of the Pitot tube in fan testing.(6) On the viscosity and friction of lubricants.

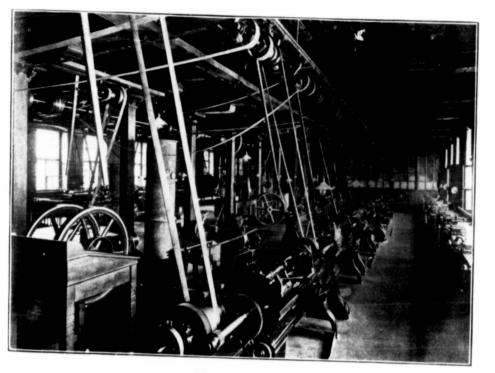
Boilers, were carried out by the Fourth Year Students.

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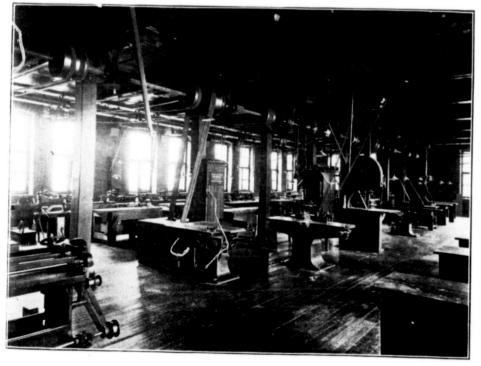
nd valuable d Geology, ork in these um, in con-Arts in the can be obhe use of a third storey paratus, the ematic modnounced by implete col-

ral Departthe founder, poses of inand compleding is intectural deevelopment e sculpture. tudents, as m, are con-

lded to the rence have students in aral photo-



Machine Shop.



Pattern Shop.

graphs is complete courses. fittings a: construct The we dowment, The pra give the S als of con tant hand skill in the during a s shops unde ical Engin commence the making nally concl manufactur the building The equi IN THE MAKING D benches, we saw benches universal w IN THE ] lathes, a 36universal mi hand lathes, cutter and r shaper, vise-IN THE S hammer.

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graphs is being formed in addition to diagrams and a very complete series of lantern slides in illustration of the historical courses. Diagrams, models and specimens of materials and fittings are also included for use in the courses on building construction and materials, sanitation, etc.

### **XVI.** WORKSHOPS.

The workshops, erected on the Thomas Workman Endowment, have a floor area of more than 25,000 sq. 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., finnally concluding in the iron-working department with the manufacture of tools, parts of machines, and, if possible, with the building of complete machines.

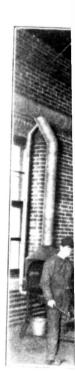
The equipment includes the following:

IN THE CARPENTER, WOOD-TURNING AND PATTERN-MAKING 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-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, I 16-in. patent shaper, vise-benches, etc.

IN THE SMITH SHOP.—Forges, hand drill, and a power hammer.

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### BOARDING 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. Gowns and overalls, \$7 to \$10. 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, \$300 to \$360.

Students can obtain a list of boarding houses on application to the secretary.

### THE MCGILL APPLIED SCIENCE SOCIETY.

The Graduates' and Undergraduates' Applied Science Societies have been amalgamated during the past session under the above title. The province of the new Society is to promote a closer relationship between the Faculty and its graduates and undergraduates. This object is to be attained by the issuing of publications which will keep the graduates advised of the progress of the Faculty, by an endeavour on the part of the Faculty to keep informed as to the whereabouts and progress of each of its graduates, and by the graduates placing the benefits of their experience at the disposal of the

IN THE FOUNDRY.—A cupola for melting iron, core oven,

The machinery in the shops is driven by a 50 I.H.P. com-

In the workshops, a 40 H. 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 arc lamps and projecting lanterns complete for class demonstration have been the principal results of steady application

pound engine and a 10 I.H.P. high speed engine.

brass furnace, moulders' benches, etc.

in the workshops.

### re oven,

P. com-

he staple d, will be aring the d double ing crane foundry; for class pplication

> month; \$10 per whole overalls,

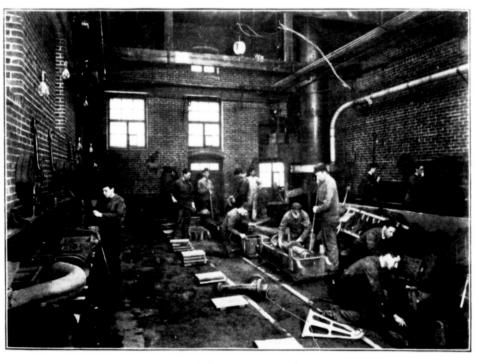
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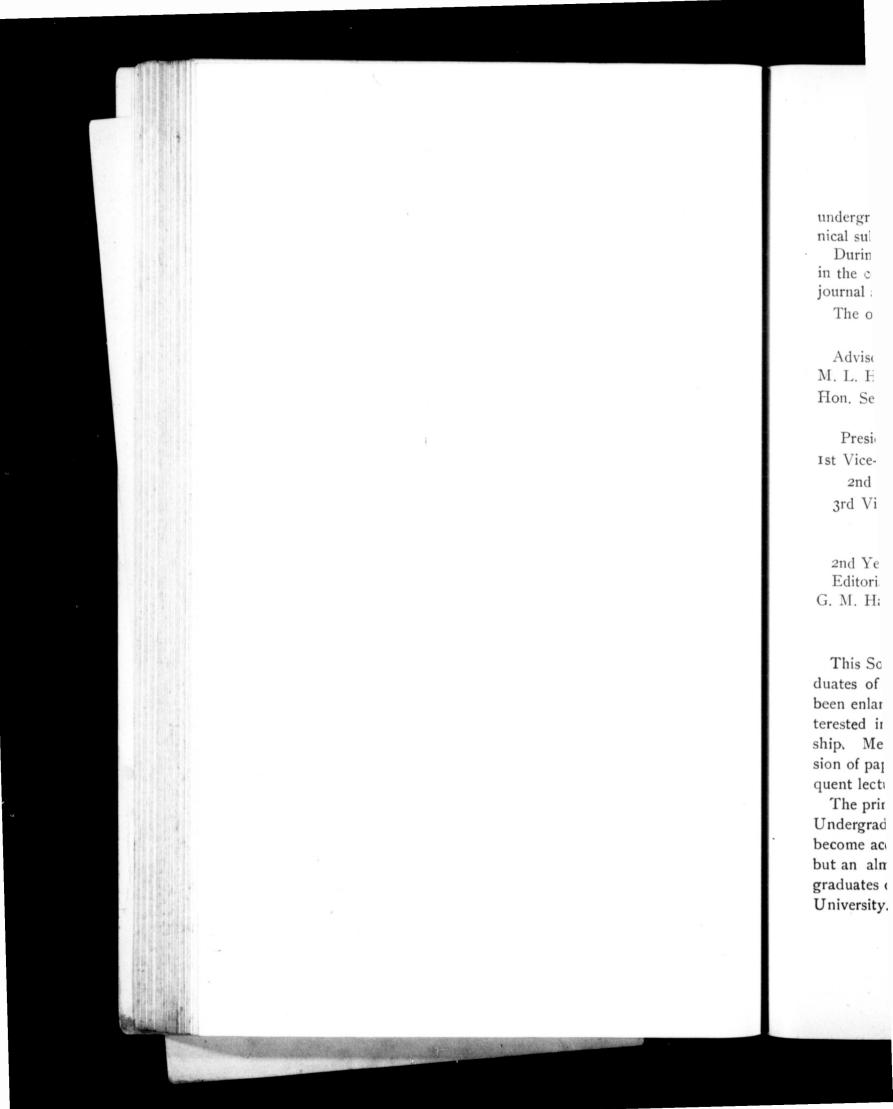
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The Smithy.



The Foundry.



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undergraduates in the form of papers and addresses on technical subjects.

During the year 1899 the Society is publishing its matter in the columns of the "Canadian Engineer," copies of which journal are sent free to every *bona fide* member of the Society.

The officers for the year 1899-1900 are as follows :---

Hon.-President, Dr. H. T. Bovey.

Advisory Committee.—Prof. F. D. Adams, J. M. McCarthy, M. L. Hersey, A. L. Mudge, R. F. Ogilvy.

Hon. Sec.-Treas., J. G. G. Kerry, Engineering Building, McGill University.

President, R. H. Gillean, Mining and Chemistry, '00.

Ist Vice-President, J. T. Anglin, Civil and Architecture, 'oo. 2nd Vice-President, J. G. Glassco, Electrical, 'oo.

3rd Vice-President, A. W. Macmaster, Mechanical, '00. Secretary, B. S. McKenzie, '01.

Treasurer, E. E. Palmer, '01.

2nd Year Representatives.—A. E. Beck and H. E. Scott. Editorial Board.—G. M. Cary, Chairman; S. J. Burgoyne, G. M. Hamilton, H. A. Burson.

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 on 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 1899-1900 are:-

### Honorary President, Dr. B. J. Harrington. President, G. P. Macmillan, Sc., '00. Vice-President, F. Cowans, Sc., '00. Sec.-Treasurer, A. R. Archer, Sc., '01.

The Committee consists of the officers and of two members from each year, who are elected at the beginning of the session.

### STATEMENT OF RESEARCH WORK IN THE LABORATORIES, 1898-99.

"Investigation of the causes of the solubility of iodine in solutions the various iodines."

"The optical activity of the phenyl-brome-acetic ethers."

"The optical activity of the salts of madelic acid at high dilutions." and "The inversion of optical activity of chor-phenyl-acetic acid by means of potash."

"A new bleaching process."

"On the loss of head due to bends in pipes" (Roy. Soc. Can.).

"On the phenomena of jets springing from non-circular orifices" (Roy. Soc. Can.).

"On the effect of temperature on the velocity in pipes, with special reference to the relation between the index of roughness and the index of fluidity."

" On the Venturi water meter."

"A new method of measuring leakage co-efficients in dynamos."

"Relation of short circuit core losses to load losses in A. C. dy-namos."

"On the laws of leakage of steam and water across a slide valve face when at rest and in motion."

"On the rate of condensation of steam with a new form of apparatus for measuring the same."

Some experiments on the application of Pitot's tube to measure the flow of steam and air in pipes."

"Experiments on the forces required by the cutting tool and the leading screw in a lathe; with a new automatic recording device."

"Experiments on the experimental engine, taking the temperatures of the cylinder walls."

"Progressive boiler trials on the new Robb-Mumford and the new locomotive boilers."

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165 " Economy trials of a Woolf compound engine." " Experiments on the properties of lubricants." " On the specific heat of water and mercury." " On the damping of electrical oscillations." "On the density of solutions." "On the absolute determination of the E. M. F. of the Clarke cell." "On the temperature and circular magnetization effects on iron." 'o mem-" On uranium and thorium radiation." "On the discharge of electrification by ultra-violet light." g of the " On vibration effect of moving machinery." "On time effects in magnetization of iron." " On the effect of combined tension and torsion upon steel bars." " On the effect of size upon the strength of a concrete cube." " On the strength of rollers." "On the influence of annealing on the tensile strength of copper under repeated stresses." solutions "On the torsional rigidity of round and square steel bars." " The British Columbia Miner's Inch." " On the application of the cyanide method to arsenical gold ores." lutions." " Comparisons of the several modifications of the chlorination and acid by bromination processes as applied to identical lots of auriferous concentrates." "On the concentration of molybdenite from quartz and granite Can.). rocks." orifices" Etc., etc., etc. special and the mos." C. dye valve ı of ap*leasure* and the ce." ratures nd the

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SATURDAY. FRIDAY.

THURSDAY.

HOURS. ł

FACULTY OF APPLIED SCIENCE--TIME TABLE-THIRD YEAR.

(a) First Term. (b) Second Term. (c) After Nov. 1st. \*The Chemical Laboratories are open to Second, Third and Fourth Year classes daily (Saturday excepted) from. to 5 p.m 1. Architectural Students. 2. Civil Engineering Students. 3. Electrical Engineering Students. 4. Mechanical Engineering Students. 5. Mining Engineering Students. 4. Mechanical Engineering Students. 5. Mining

YEARS	YEARS HOURS.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
	6	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Shopwork.
EAR.	10	Mathematics,	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Do
Y TEA	11		English.	Lettering.	Geom. Drawing $(a)$ . Lettering $(b)$	English.	Do
ы	12	Experimental Physics.		Lettering.	Geom. Drawing. $(a)$ . Lettering. $(b)$ .	Experimental Physics.	Do
	2 to 5	Mathematical Lab. (a) Shcpwork.	Mathematical Lab. (a) Physics.	Desc. Geometry.	Physics. Shopwork.	Freehand Drawing.	
	6	Mathematics, 1, 2, 3, 4, 5, 6.	Mathematics, 1, 2, 3, 4, 5, 6.	Mathematics, r, 2, 3, 4, 5, 6.	Mathematics, 1, 2 3, 4, 5, 6.	Drawing, 2. Freehand Drawing, 1.	Archt. Drawing, 1, Shopwork, 2, 3, 4, 5-
.я.	10	Chemical Lab., 3, 4, 5, 6. Theory of Archt., 1, 2.	Chemistry, 6. History of Archt., 1. Surveying, 2, 5.	Mathematics, 1, 2, 3, 4, 5, 6.	Chemical Lab., 6. Kinematics, 3, 4. Surveying, 2, 5.	Drawing, 2. Freehand Drawing, 1.	Do
ар теа		Chemical Lab. 3, 4, 5, 6. Freehand Drawing, 1.	Chemistry, 1, 2, 3, 4, 5, 6.	Chemistry, 6. History of Archt., 1, Kinematics, 3, 4. Surveying, 2, 5.	Building Const., 1, 2. Chemical Lab., 6, Kinematics, 3, 4.	Mathematics. <b>1</b> , 2, 3, 4, 5, 6.	Do
SECO)	12	Chemical Lab., 3, 4, 6. Freehand Drawing, 1. Mechanism, 2, 5.	Exp. Physics, 1, 2, 3, 4, 5, 6.	Chemistry, 1, 2, 3, 4, 5, 6.	Experimental Physics, <b>1</b> , <b>2</b> , 3, 4, <b>5</b> , 6.	Chemistry, 1, 2, 3, 4, 5, 6.	Do
	2 to 5	<b>2 to 5</b> Physical Lab., 1, 2, 5, 6.	Desc. Geometry, 1, 2, 3, 4, 5, 6.	Archt, Drawing, 1. Chemical Lab., 6. Mapping, 2, 5. Shopwork, 3, 4.	Archt. Drawing, <sup>1</sup> . Chemical Lab, 6. Mapping 2, Mechl. Drawing, 3, 4, 5.	Chemical Lab., 1, 2, 5, 6. Physical Laboratory, 3, 4.	

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# FACULTY OF APPLIED SCIENCE-TIME TABLE-FIRST AND SECOND VEARS.

WEDNESDAY.

MONDAY.

TUESDAY.

Desc. Geometry, 1, 2, 3, 4, 5, 6. z to o rnysical Lab., 1, 2, 5, 6.

Chemical Lab., 6. Chemical Lab, 6. Mapping, 2, 8. Mapping, 2, 4, 5. Shopwork, 3, 4. Mechl. Drawing, 3, 4, 5.

Chemical Lab., 1, 2, 5, 6. Physical Laboratory, 3, 4.

(a) First Term. (b) Second Term. (c) After Nov. 1st. \*The Chemical Laboratories are open to Second, Third and Fourth Year classes daily (Saturday excepted) from 0 a.m. to 5 p.m r. Architectural Students. 2. Civil Engineering Students. 3. Electrical Engineering Students. 4. Mechanical Engineering Students, 5. Mining Engineering Students. 6. Practical Chemistry Students.

# FACULTY OF APPLIED SCIENCE.-TIME TABLE-THIRD YEAR.

Reads and Canals, 2. Geology, 2, 5, 6. Specifications, etc.,	Geology, 2, 5, 6, Sp Freehand Drawing, 1. Mac Shopwork, 3, 4. Surveying, 2, 5.	Geology, 2, 5, 6.     Specifications, etc., 1.       Freehand Drawing, 1.     Machine Design, 3, 4, 5.       Shopwork, 3, 4.     Surveying, 1, 5.       Metallurgy, 5, 6.     Experiment: Physics.       Metallurgy, 5, 6.     Experiment: Physics.       Surveying, 1.     Ita, 2, 3, 4.5.       Surveying, 1.     Ita, 2, 3, 4.5.	Geology, 2, 5, 6.Specifications, etc., 1.Freehand Drawing, 1.Specifications, etc., 1.Freehand Drawing, 1.Machine Design, 3, 4, 5.Shopwork, 3, 4.Surveying, 1.Shopwork, 3, 4.Chemistry, 6.Metallurgy, 5, 6.Experiment.: Physics.Shopwork, 3, 4.Nathematics (b)Hist. of Archt, 1.1, 2, 3, 4, 5.Municipal Eng., 1, 2.1, 2, 3, 4, 5.Ore-dressing, 5, 6.Theory of Structures,
	1	Machine Design, 3, 4, 5. Surveying, 1. Experimentci, Physics. Mathematics (b) 1, 2, 3, 4, 5.	Machine Design, 3, 4, 5. Surveying, 1. Chemistry, 6. Experimentic, Physics. Mathematics ( $\hat{\phi}$ ) 1, 2, 3, 4, 5. Theory of Structures, 1, 2, 3, 4, 5.
	Machine Design, 3, 4, 5. Surveying, 1.		
		Gr Th	Freehand Dr Geelogy, 2 Thermo, Lah Graphical St Thermo, L 2, 3, 4, 4, Craphical St Hygiene Thermoi, L 2, 3, 4, 2, 2, 4, 2, 3, 4, 2, 3, 4, 2, 3, 4, 2, 3, 4, 2, 3, 4, 3, 4, 4, 3, 4, 4, 3, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,
	Freehand Drawing, r. Geology, 2, 5, 6. Thermo. Lab. $(b)$ 3, 4.	Freehand Drawing, 1, Geology, 2, 5, 6, Thermo, Lab. (b) 3, 4, Graphical Statics (a) Thrmo. Lab. (b) 2, 3, 4, 5, 2, 3, 4, 5,	awing, 1, $\frac{1}{2}$ , 5, 6, $\frac{1}{2}$ , 5, 6, $\frac{1}{2}$ ,
	Do		(b) Museum W

(a) First Term. (b) Second Term. (c) First half of first Term. (d) Second half of first Term. 1. Architectural Students. 2. Civil Engineering Students.
 3. Electrical Engineering Students. 4. Mechanical Engineering Students.
 6. Practical Chemistry Students.

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# FACULTY OF APPLIED SCIENCE-TIME TABLE-FOURTHYEAR.

			168		
SATURDAY.	Designing (b) r. Geodetic Lab., 2. Geology (a) r. Mining Lab. (c) 4. Shopwork, 4.	Do	Do	Museum Work in Geology (b) 2, 5.	
FRIDAY.	Hist, of Archt., r. Machinery, 2, 3, 4, 5.	Elect, Eng. (a) 3. Frêehand Drawing (b) 1. Geology 2. Geology (a) 1. Mechl, Eng. Lab., 4. Mining Lab., 5.	A.C. Machy., 3. Freehand Drawing, 1. Mechl. Eng. Lab., 4. Mining Lab. 5. Theory of Structures, 2.	Electro-Chem., 6 (b) 3. Freehand Drawing 'a) 1. Mygiene (b) 1. Mechl. Eng. Lab., 4. Mining Lab., 2. Theory of Structures, 2.	Chemical Lab., 6. Designing, r. Dynamo Lab., 3. Graphical Statics, 2. Mechl, Eng. Lab., 5. Mining Lab., 5.
THURSDAY.	Hydraulics (Machy., etc.), 2, 3, 4, 5. Specifications, etc., 1.	Transm. and Distrib. of Power, 2, 3, 4, 5.	Dyn. of Mach., 3, 4. Org. Chemistry, 6. Railway Eng., 2, 5.	Chemistry, 6. Designing, 5. Thermodynamics, 3, 4.	Assay Lab. $(b)$ 5, 6. Chem. Lab. $(a)$ 5, 6. Designing, 4. Hydraulic Lab. $(a, 1, 1)$ Modelling $(b)$ , 1. Physics, 3. Test. Lab. 6.
WEDNESDAY.	Designing, 2, Geology (a) 1. Metallurgy (a) 4, 5. Iron, steel and alloys $(h)$ 4, 5.	Designing, 2, 5. Dyn, of Machy., 4. Elec. Eng., 3. Freehand Drawing, 1.	A.C. Machy., 3. Designins, 2, 5. Dyn. of Machy., 4. Freehand Drawing, 1.	Dyn. of Machy., 4. Palæontology (b), 5. Pract. Geology (a) 5. Municipal Eng., 1, 2.	Assay Lab. $(b)$ 5. Chemical Lab. $(d)$ 5, 6. Designing. 1. Dyn. of Machy. $(a)$ 4. Hydraulic Lab. $(b)$ 3. Metallur. Lab. $(c)$ 4.5.
TUESDAY.	Designing, r. Dyn. of Machy., 3, 4. Mining, 5.	Canadian Geology (b) 5. Designing, r. Elect. Eng., 3. Ore Deposits (a) 5. Thermo. Lab., 4.	Designing, t Elect. Measurements, 3. Metallurgy, 5. Org. Chemistry, 6. Theory of Structures, 2. Thermo. Lab., 4.	Designing, r. Electro-Chem., 3 (b) 6. Railroad Eng., 2, 5. Thermo. Lab., 4.	Chem. Lab, 6. Designing (a) <sup>1, 5</sup> . Electro-Chem. Lab., 5. Physics, 3. Testing Lab., 2. Thermo. Lab., 4.
MONDAY.	Art. History, 1. Mach. Design (a) 3, 4. Mining, 5. Theory of Structures, 2.	Freehand Drawing, $(b)$ 1. Geology $(a)$ 1. Hydraulics, $a_1^2, a_2^2, a_3, a_1(a)$ 5. Hydraulics $(b)$ 5 or Electro-Chemistry $(b)$ 5,6.	A. C. Machy., 3. Freehand Drawing, 1. Geology (b) 5. Petrography (a) 5.	Chemistry, 6. Geodesy, 2. Freehand Drawing (a) 1. Metallurgy, non-ferous,5. Thermodv namics, 3, 4. Water Colouring (b) 1.	Chemical Lab., 5, 6, Designing, 1, 2, 4. Dynamo Lab., 3.
O URS.	6	10	=	12	2 to 5

 (c) First half of first Term. (d) Sec ond half of first Term.
 t. Architectural Students.
 z. Civil Engineering Students.
 4. Mechanical Engineering Students.
 6. Practical Chemistry Students. (a) First Term. (b) Second Term.3. Electrical Engineering Students.

MATTHEW HON. J. E HON. MR.

F. P. WAI of Ro Hon. C. A A. McGou T. FORTIN, HON. MR. W. DE M. . E. LAFLEUR HON. MR. J R. C. SMITH

P. C. RYAN, AIMÉ GEOFF GORDON W.

Session

WYATT G. J

The Curricul courses of lectu Province of Qu tory, and the of the Domini comprehensive to practice at th the attention of !

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## faculty of Law.

(Macdonald Foundation.)

THE PRINCIPAL : Ex. Officio.

PROFESSORS EMERITI.

MATTHEW HUTCHINSON, D.C.L. HON. J. EMERY ROBIDOUX, D.C.L.

HON. MR. JUSTICE WURTELE, D.C.L.

PROFESSORS.

F. P. WALTON, B.A. (Oxon.), LL.B. (Edin.), Gale Professor of Roman Law, and Dean of the Faculty.

HON. C. A. GEOFFRION, Q.C., D.C.L., P.C. Professors A. McGoun, M.A., B.C.L. T. FORTIN, LL.L., D.C.L. of Civil Law. HON. MR. JUSTICE DOHERTY, D.C.L. W. DE M. MARLER, B.A., D.C.L. E. LAFLEUR, B.A., B.C.L., Professor of International Law. HON. MR. JUSTICE DAVIDSON, D.C.L., Professor of Criminal Law.

R. C. SMITH, B.C.L., Professor of Commercial Law.

The above constitute the Faculty.

LECTURERS.

P. C. RYAN, B.C.L. AIMÉ GEOFFRION, B.C. L. GORDON W. MACDOUGALL, B.C.L.

SESSIONAL LECTURER IN MEDICAL JURISPRUDENCE.

WYATT G. JOHNSTON, M.D.

The Curriculum extends over three years. It includes courses of lectures upon all the branches of the Law of the Province of Quebec, and also upon Roman Law, Legal History, and the Constitutional Law of England, and of the Dominion. Its primary design is to afford a comprehensive legal education for Students who intend to practice at the Bar of the Province. In all the courses the attention of Students will be directed to the sources of the Law, and to its historical development. During their first year the students will attend a course of one hundred lectures on Roman Law, from which the Law of this Province is in great part derived. In the lectures on Legal History the relations of our Law with the Law of France and its History since the Cession will be explained. First Year Students will also attend courses on the Law of Persons; the Law of Real Estate; the Law of Obligations; and the Elementary rules of Procedure. The remaining branches of the law, civil, commercial and criminal, will be dealt with in the Second and Third Years. During the three years' course the Civil Code, the Criminal Code and the Code of Civil Procedure will be covered, and lectures will also be given upon subjects such as Bills of Exchange, Merchant Shipping, and Banking, which are regulated mainly by special statutes. A course of lectures upon Medical Jurisprudence is generally arranged for.

Students have the free use of the Law Library of the Faculty. This includes the law libraries of the late F. Griffin, Esq., Q.C., Mr. Chancellor Day, Mr. Justice MacKay and Mr. Justice Torrance. Many new books have been added, and the principal reports and legal periodicals are taken. A special room for Law Students is provided in the Redpath Library. This room is open during the day, and in the evenings from eight to ten o'clock.

The lectures are delivered in the rooms furnished for the Faculty in the East Wing of McGill College by its munificent benefactor, Sir Wm. C. McDonald, K.C.M.G. The Faculty desire to impress upon English students the great importance of obtaining a familiar knowledge of French. In the practice of the profession in this Province it is almost indispensable that a lawyer shall be able to write and speak French, and to understand it when it is spoken. Gentlemen who intend to become students of law are urged to pay special attention to this subject.

Those students who are able to take the B.A. course before entering upon their legal studies are strongly recommended to do so. Those for whom this is impossible are advised to attend the courses in the Faculty of Arts for two years. The requi found below

Various so dents of eac Examination No schola student unles high standin

Matriculate are classed a ceed to the L Occasional particular ser Students w and have pas upon the cert the Degree of

I. Any person apply to the Se in the Register triculation and t of the Course.

2. The degree University, or a the Bar for adm the intermediate versity will be a this Faculty. F this year will be g their first red lectures ovince is in History the its History udents will aw of Real irv rules of civil. comecond and Civil Code, will be cov-:ts such as ing, which rse of lecanged for. of the Fa-F. Griffin, cKay and en added. taken. A e Redpath the even-

> ed for the munificent ie Faculty at importi. In the nost indisik French, n who inspecial at-

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The requirements for Matriculation in the Faculty will be found below in the Faculty Regulations.

### SCHOLARSHIPS AND PRIZES.

Various scholarships and prizes will be awarded to the students of each year who obtain the highest distinction at the Examinations in April, 1900.

No scholarship or prize will, however, be awarded to any student unless in the estimation of the Faculty a sufficiently high standing 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 admitted for attendance on any particular series of Lectures without matriculation.

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 of the University for examination and entry in the Register of Matriculation, and may procure 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 Faculty of Arts in McGill University will be accepted in lieu of examination for Matriculation in this 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.

Candidates will be expected to be able to translate a simple passage at sight.

French.—De Fivas' "Grammaire des Grammaires;" \*Molière, "Le Bourgeois Gentilhomme"; †Translation into French of Macaulay's Essay on Frederick the Great.

> Candidates must be able to translate French easily, and must have some familiarity with the spoken language.

> Exercises in Composition and Grammatical Analysis, in English and French.

- 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; †Duruy, Histoire de France.
- Literature.—\*Collier's Biographical History of English Literature; †Laharpe Course de Littérature; †Lefranc, Course de Littérature.

Rhetoric .-- Whately's Rhetoric; Blair's Lectures (small edition).

Philosophy.—Whately's Logic; †Logique de Port Royal; †Cousin, Histoire de la Philosophie; \*Stewart's Outline of Moral Philosophy.

N.B.—The works mentioned above preceded by an asterisk are for English students only. Those preceded by a cross are for French Students only. The remainder are for both English and French.

The examination will be held on the first day of the Session at 10 a.m.

3. Students of Law shall be known as of the First, Second and Third Year, and shall 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 1st October in each year, and return thereof shall be immediately made by the Dean to the Registrar of the University. Candidates applying thereafter may be admitted on a special examination to be 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 shall apply to the Dean of the Faculty for admission as such Students, and shall obtain a ticket or ticket for the class or classes they desire to attend. 6. Students other Univers mitted, on the University.

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apply to and shall 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

7. All students shall be subject to the following regulations for attendance 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 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 required of each student. Professors will note the attendance immediately on the commencement of their lectures, and will omit the names 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, and, if necessary, report him to the Dean.

(d) When Students are reported to the Faculty under the above rules, 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.

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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 College year there shall be a general examination of all the classes, under the superintendence of the Professors, and of such other examiners as may be appointed by the Corporation. The 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, the Faculty shall decide the general standing of the Students.

10. At the end of the third College year there shall be a Final Examination of those Students who have completed the Curriculum. This Examination shall be conducted partly by written papers and partly orally. It shall cover all the subjects upon which lectures have been delivered during the three years' course. Those Students who satisfy the examiners shall be entitled, after making the necessary declaration and payment of the Graduation Fee, to proceed to the Degree of B.C.L. The Elizabeth Torrance Gold Medal shall be awarded to the Student who shall obtain the highest marks in the Examination, provided his answers shall, in the estimation of the Faculty, be of sufficient merit to entitle him to this distinction. There shall be no Sessional Examination of Students who are candidates in the Final Examination.

II. 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.

12. 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.

13. Every Candidate, before receiving the Degree of B.C.L., shall make the following declaration:--

Ego A.B. polliceor sancteque recipio, me, pro meis viribus, studiosum fore communis hujus Universitatis boni, et operam daturum ut ejus decus et dignitatem promoveam, et officiis omnibus ad Baccalaureatus in Jure Civili gradum pertinentibus fungar.

14. The fees in the Faculty will be as follows for Students matriculating after Nov., 1897:--

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fellows...... 12 50 Sessional Fee by Partial Students, for the course of Roman Law, \$20; for each of the courses on Successions, Criminal Law, and Civil Procedure, \$15; and for each one of the shorter

courses ...... 10 00 Students matriculated before Nov., 1897, will continue to pay a

Matriculation and Sessional Fees must be paid on or before Oct. Ist; and, if not so paid, the Student in default shall incur a fine of \$3; his name shall be removed from the books; and his attendance at lectures shall not be credited until his fees and the said fine have been paid. Students already on the books of the University shall not be required to pay any Matriculation Fee.

15. Partial Students may be admitted into class on such terms as shall be arranged by the Faculty.

16. The requirements and conditions for obtaining the Degree of D.C.L. in course can be ascertained upon application to the Dean.

### SYLLABUS.

Tuesday, 5th September, 1899, Matriculation, Introductory Lecture by the Dean.

Wednesday, 6th September, Ordinary Lectures begin.

Friday, 8th 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, 8th January, 1900 Lectures, Second Term, begin. Tuesday, 9th January. Bar Examinations take place at Montreal.

Friday, 27th April. Convocation for Degrees in Law.

Saturday, 3rd 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 practice Law in the Province of Quebec. Tuesday, 4th July. Bar Examinations take place at Quebec.

### EXAMINATIONS.

The Examinations are held at the close of the session.

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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 practice 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:

### MONTREAL......Tuesday, 9th Jan., 1900. QUEBEC.....Tuesday, 2nd July, 1900.

and alternately in Montreal and Quebec every six months, namely at Montreal on the second Tuesday of each January, and at Quebec on the first Tuesday of each July.

All information concerning these examinations can be obtained from the General Secretary's Office. The present General Secretary is Arthur Globensky, Esq., Montreal.

Article 3546.—Candidates must give notice as prescribed by this article at least one month before the time fixed for the examination to the Secretary of the Section in which he resides, or in which he has resided for the last six months.

The present Secretary of the Montreal Section is J. C. Walsh, Esq., 1608 Notre Dame Street, Montreal.

Article 3503a.—Added by Statute of Quebec, 53 Victoria (1890), Cap. 45, provides that Candidates holding the diploma of Bachelor on Arts, Bachelier-es-Lettres, or Bachelier-es-Sciences from a Canadian or other British University are dispensed from the examination for admission to study. Such Candidates are required to give the notice mentioned above.

Article 3548 R.S.Q. (as altered by by-law of the General Council). On giving the notice prescribed by Article 3546, the Candidate pays the Secretary a fee of \$2, and makes a deposit of \$30 for admission to study, or of \$70 for admission to practice, which deposit, less \$10, is returned in case of his not being admitted.

Article 3552 (amended 1894, Q. 57 Vic., c. 35).—To be admitted to practice, the Student must be a British subject, and must have studied regularly and without interruption during ordinary office hours, under indentures before a Notary as Clerk, or Student with a practicing Advocate, during Four Years, *dating from the registration* of the certificate of admission to study. This term is reduced to Three Years in the case of a student who has followed a regular law course in a degree in la The By-]

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course in a University or College in this Province and taken a degree in law therein.

The By-Laws passed by the General Council of the Bar of the Province of Quebec, 16th Sept., 1886, and amended 10th Feb., 1892, provide as follows:—

# PROGRAMME FOR UNIVERSITY COURSE OF LECTURES ON LAW.

Art. 42.—A course of lectures on law given and followed at a University or College in this Province, and a diploma or degree conferred on students by such university or college, shall be held to be such as contemplated in art. 3552 R.S.Q. only when the university or college conferring the degree and the student who receives it shall have efficiently followed the programme herein set forth. This article and article 44 shall apply to students already admitted only as regards lectures to be given after the 1st of January, 1887.

2. The subjects on which lectures shall be given, and the number of lectures required on each subject for a regular course of lectures on law in a university or college shall be as follows—:

### ROMAN LAW:—103 Lectures.

This subject shall include an introduction to the study of Law and the explanation of and comments on the Institutes of Justinian and the principal jurisconsults of Rome.

CIVIL, COMMERCIAL AND MARITIME LAW:-413 Lectures.

Lectures on these subjects shall cover at least three years. They consist of the history of French and Canadian law, the explanation of and comments on the Civil Code of the Province of Quebec and the Statutes relating to Commerce and Merchant Shipping.

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### CIVIL PROCEDURE:—103 Lectures.

Lectures on this subject shall extend over at least two years. It shall consist of the explanation of and comments on the Code of Civil Procedure and the Statutes amending it, the organisation of the Civil Courts of this Province and the history of the different judicial systems of the country; also, the special modes of procedure provided by statutes and laws of general application.

### INTERNATIONAL LAW, Private and Public:—21 Lectures. CRIMINAL LAW:—69 Lectures.

This subject includes the history of criminal law in Canada, the constitution of criminal courts, criminal procedure, comments on statutes relating to criminal law, the relation of criminal law in Canada to the criminal law of England. The lectures shall extend over two years.

### Administrative and Constitutional Law:-41 Lectures.

These subjects include an inquiry into the different political institutions and the public institutions of the country, the powers, organization and procedure of the Federal Parliament and of the Local Legislature, the laws on Education and the Municipal Code.

Art. 43.—Candidates for practice who hold a degree in law from a university or college in this Province, shall produce, with their notices, a certificate from the principal or Rector of such university or college to the effect that they followed a course of lectures on law in the same, during at least three years, in conformity with the by-laws of the Bar; and such certificate shall further specify the number of public lectures at which they shall have attended on each subject mentioned in the foregoing programme, during each of the said three years. The last part of this certificate shall only be required for courses of lectures given after the 1st January, 1897.

Art. 44.—The examiners shall not consider a university degree in law valid for the purposes of admission to the Bar if they find that the candidate has not in fact followed the programme above.

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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 form 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. In group first one work on Public and one on Private International Law must be offered.

I. INTERNATIONAL LAW.

A. Public:--Twiss, Sir T., Law of Nations. Hall, W. E., International Law.

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Harcourt, Sir W. D., Letters by Historians.
Ortolan, T., Diplomatie de la Mer.
De Martens, Droit International.
Holland, Studies in International Law.
B. Private:—
Savigny, Private International Law (Ed. Guthrie).
Bar, Private International Law (Ed. Gillespie).
Foelix, Droit International Privé.
Laurent, Droit Civil International.
Brocher, Droit International Privé (Ed. Pradier-Fodéré).
Dicey, Conflict of Laws.
Story, Conflict of Laws.
Lafleur E., Conflict of Laws.

### 2. ROMAN LAW.

Maynz, Droit Romain. Muirhead's Roman Law. Girard, Manuel de Droit Romain. Ortolan's Institutes (Ed. Labbé.) Savigny, Roman Law in the Middle Ages. Cuq, Les Institutions Juridiques. Puchta, Institutionem. Krüger, Rômische Rechtsquellen. Roby's Introduction to the Digest. Hunter's Roman Law.

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. May, """"" Gardiner, """" Freeman, C Mill, Repre Anson, Law

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Todd, Parlia Bourinot, Fe Doutre, Cons Cartwright, ( Lord Durhan Lareau, Hist Houston's Cc Volume O., S Masères' Coll Laferrière, Es Dilke, Problen Matthews (Jeł Bryce, Americ Curtis, Histor Cooley, Princi

### 5. CRIMINAL L

Stephens, Histo Blackstone, Vo Harris, Principi Pike, History o Holland, Eleme Austin, Lecture Lorimer's Instit Amos, Science o Woolsey, Political Freeman, Compa Aristotle's Politica

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Freeman, Growth of the English Constitution. Mill, Representative Government. Anson, Law and Custom of the Constitution.

### 4. Constitution of Canada and Works relevant thereto.

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Todd, Parliament Government in the British Colonies.
Bourinot, Federal Government 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 Constitutional of the United States.
Cooley, Principles of Constitutional Law.

5. CRIMINAL 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 Ethics.
Lieber, Political Ethics.
Freeman, Comparative Politics.
Aristotle's Politics, by Jowett.

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# COURSES IN THE FACULTY OF LAW FOR 1899-1900.

### Roman Law.

### Professor Walton.

During the first part the external history of the law from the early period to the codification of Justinian will be dealt with. The sources of the law will be described, and the gradual evolution explained, by which the law of the city of Rome became fitted to be the law of the civilized world. A brief sketch will be given of the legal institutions of Rome in the first period and of the early constitutional history.

In the doctrinal part of the course matters mainly of antiquarian interest will be touched only slightly. Those portions of the Roman Law which have been followed most closely in the existing law of the Province, e.g. Things, Servitudes, Pignus and Hypothec, Contracts, Obligations, will be treated in detail, and the modifications made by the modern law will be noticed. Class-examinations will be held from time to time, and a first and second prize of books will be given to the two students who obtain the highest marks in these examinations.

Text-book, Moyle's or Sandar's Institutes of Justinian. Books of Reference.

Muirhead's Historical Introduction to Roman Law. Muirhead's Institutes of Gaius.

Maynz, Cours de Droit Romain.

Puchta, Institutionem.

Girard, Manuel de Droit Romain. Maine's Ancient Law.

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### CONSTITUTIONAL LAW.

### Professor Walton.

This subject will be divided into two courses of about twenty lectures each.

Part I. will consist of a sketch of the Constitutional Law

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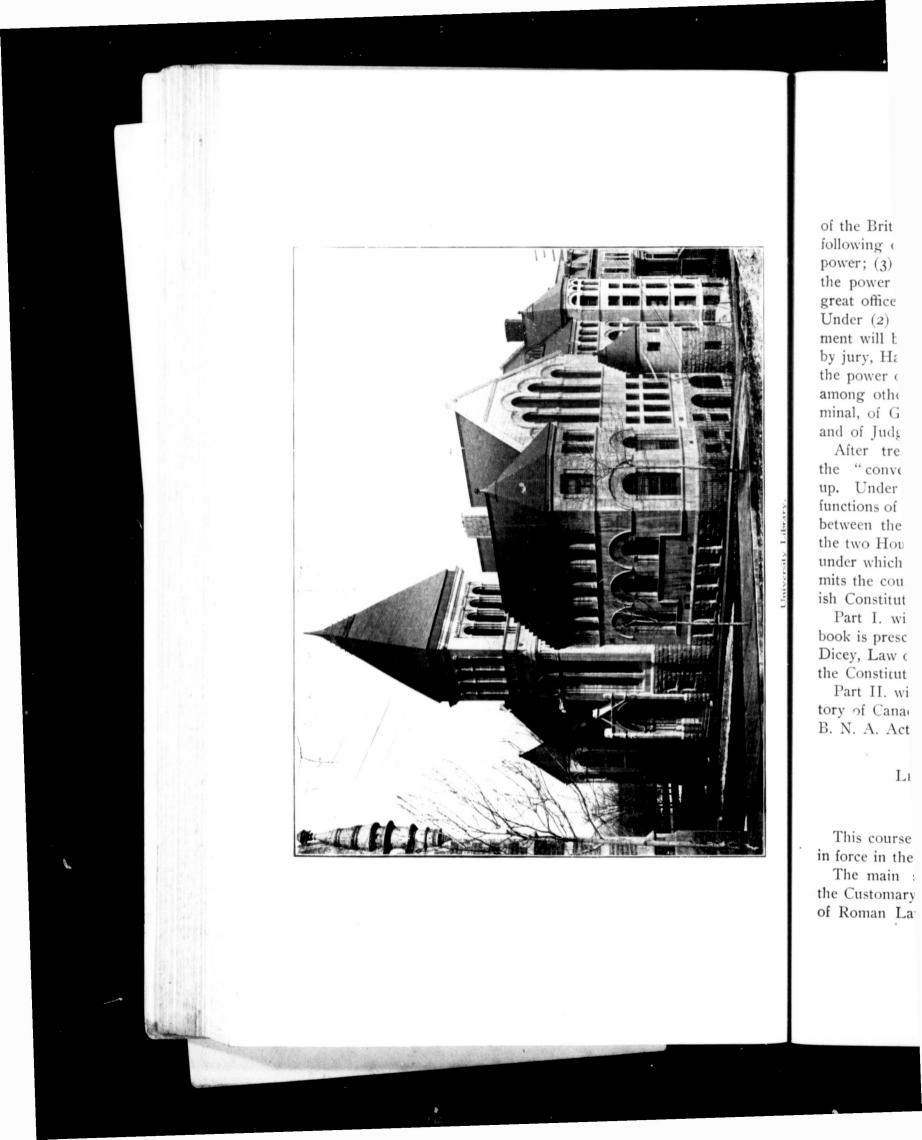
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of the British Empire. The subject will be considered in the following order: (1) the executive power; (2) the legislative power; (3) the rights and liberties of the subject. Under (1) the power of the sovereign, of the Privy Council, of the great officers of state, and of Parliament, will be discussed. Under (2) the process of legislation in the Imperial Parliament will be explained. Under (3) will fall the right to trial by jury, Habeas Corpus, and the constitutional limitations of the power of the Crown. Afterwards the following topics among others will be dealt with. Liability, Civil and Criminal, of Governors of Colonies, Naval and Military officers, and of Judges for their official conduct.

After treating of the actual law of the constitution, the "conventions of the constitution" will be taken up. Under this head will fall a description of the history and functions of the Cabinet, of the means of adjusting differences between the Sovereign and the two Houses, and between the two Houses themselves, and of the kind of circumstances under which it is usual for ministers to resign. If time permits the course will conclude with a comparison of the British Constitution with the Constitution of the United States.

Part I. will be given to First Year Students. No textbook is prescribed, but students are recommended to refer to Dicey, Law of the Constitution; Anson, Law and Custom of the Constitution; and Bagehot, The English Constitution.

Part II. will consist of a sketch of the Constitutional history of Canada, and of the existing Constitution under the B. N. A. Act.

### LEGAL HISTORY AND BIBLIOGRAPHY.

### Professor McGoun.

This course comprises an outline of the history of the law in force in the Province of Quebec.

The main sources from which this law are derived are the Customary Law of France, as modified by the principles of Roman Law as embodied in several of the codes or collections of Roman Law before the time of Justinian. The Customs of France after being reduced to writing were further modified by the influence of modern Roman Law, which prevailed throughout the larger part of France. The ordinances of the French kings and the commentaries of the great jurists from Cujas and Dumoulin down to Pothier brought the Civil Law of France into the systematic form into which it was introduced into this Province. The custom of Paris, one of the most important of those recognized in France, became formally the basis of the Civil Law in this country, and the ordinance of 1667 was the main authority for procedure.

Since the opening of the British régime the development of Lower Canadian Civil Law has proceeded independently of the Civil Law of France, where the Code Napoléon was passed early in the Century. In Lower Canada a code on the same lines was adopted shortly before the Confederation. Lower Canadian Law has been modified by English law in commercial matters, and also by statutes passed in the Province. Criminal Law, on the other hand, has been derived almost exclusively from the Criminal Law of England.

The leading authorities upon the main branches of the law with the reports of decisions of our courts are brought under the attention of the students in this course.

### LAW OF CORPORATIONS AND OF JOINT STOCK COMPANIES.

### Professor McGoun.

This course is the sequel on the one hand of the course on Agency and Partnership, with which it is closely connected, by reason of the facilities given in the Incorporation of Companies to the undertaking of important enterprises, by a species of partnership or association between individuals upon a larger scale than can be undertaken in a simple partnership. The doctrine of limited liability and the opportunity which it affords for carrying out enterprises of great importance, with combinations of capital derived from a large number o other han lished by or by Par plained, an ordinary fe and Corpc of laws re and the au the limits e are brough years, Prof.

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number of individuals, is treated of in this course. On the other hand, the growth of Corporatons, both those established by long custom, and those created by Royal Charter, or by Parliamentary or Legislative authority, is also explained, and the relation between these corporations and the ordinary forms of joint stock companies. Corporations sole and Corporations aggregate are defined, and the principles of laws relating to Corporations and Companies explained, and the authors who treat of these principles, and who trace the limits of the powers and authority of such corporations are brought under the notice of the students. In the alternate years, Prof. McGoun will lecture on Agency and Partnership.

### CRIMINAL LAW.

### Professor Mr. Justice Davidson.

This course includes:----

A history of the Criminal Law and Criminal Procedure of England; and of their introduction into and development throughout Canada;

Discussion of the Criminal Code and other Statutes enacting criminal offences; of the rules of evidence in criminal cases, of the Fugitive Offenders' Act; of extradition, and generally of the principal features belonging to the Criminal Law of the Dominion.

### COMMERCIAL LAW.

### Professor Macmaster.

The subjects dealt with will include Commercial Sales, Bills and Notes, the law of Carriers and the law of Insurance. The course on carriers will cover:

- I. Carriers: contracts with:
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  - (b) Merchant Shipping.
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The course on Insurance will cover: 2. Insurance contracts of:

- (a) Marine Insurance.
- (b) Fire Insurance.
- (c) Life Insurance.

### CIVIL PROCEDURE.

### Mr. Percy C. Ryan.

The advanced course for the Second and Third Years covers all matters of procedure not dealt with in the First Year Course, and includes Provisional Remedies, such as capias, attachment before judgment, injunction, etc., and special proceedings, such as proceedings relating to corporations and public offices, mandamus, etc., as well as the rules of pleading in the more complicated classes of action. It will be divided into two parts, one of which will be taken in each alternate year.

### CIVIL PROCEDURE.

### Mr. Gordon W. Macdougall.

This course to the students of the First Year is intended to form an introduction to the subject, to explain the simpler kinds of actions, the general rules of pleading, and the jurisdiction of the several courts.

The revised Code of Civil Procedure for the Province of Quebec is the text-book.

### MARRIAGE COVENANTS AND MINOR CONTRACTS.

### Professor Fortin.

Two courses.

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In the alternate years, Professor Fortin will lecture on Prescription, Lease, and Municipal Law.

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### Professor Mr. Justice Doherty.

The Law of Succession.

The course consists of a commentary and explanation of the whole of Title I., and the third Chapter of Title II. of the Third Book of the Civil Code. The order followed by the Code in dealing with the different matters, coming within the scope of this course, has however been departed from with a view to presenting to the Student the Law governing successions as one whole. The subject will be developed as nearly as possible in the following order:—

I. General notions, definitions and divisions of the subject. The Testamentary Succession. The Ab-Intestate Succession.

2. Rules of Law common to both Successions.

3. Rules peculiar to the Testamentary Succession.

4. Rules peculiar to the Ab-Intestate Succession.

5. Partition of the Succession (and of property held in undivided ownership generally), its incidents and effects. In the alternate year, Prof. Doherty will lecture on Gifts and Substitution.

### Obligations.

### Mr. Aimé Geoffrion.

This course of lectures will consist of a commentary on the title on obligations in the Civil Code, less the chapter of proof articles 982 to 1,202 inclusive. Our law on the subject will be compared with the old French law and the modern French law; and its general principles will be explained and illustrated.

REAL PROPERTY LAW, PRIVILEGES AND HYPOTHECS, RE-GISTRATION, AND NOTARIAL LAW.

Professor Marler.

Two courses.

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### PUBLIC INTERNATIONAL LAW.

### Professor Lafleur.

Sovereignty and equality of Independent States, Recognition of Belligerency and Independence. Justifiable grounds of intervention. Modes of territorial acquisition. Territorial boundaries. Doctrine of Exterritoriality. Treatise and Arbitrations. Laws of War. Neutrality of States and of individuals. Laws of Blockade. Contraband. Confiscation. Prize-Courts and their jurisprudence.

N.B.—The students' attention will be specially directed to Treaties, Diplomatic Relations, and International Arbitrations, in which Canada is directly concerned.

### PRIVATE INTERNATIONAL LAW.

### Professor Lafleur.

Distinction between the *a priori* and positive methods. Sources of the positive law of Quebec on the subjects. Application and illustration of the rules for solving conflicts of law in regard to the different titles of the Civil Code. Comparisons between our jurisprudence and that of England, France, and Germany. INT

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### TIME TABLE.

### INTRODUCTORY LECTURE, TUESDAY, 5TH SEPT., 4 P.M. FIRST YEAR STUDENTS, 1899-1900.

WEDNESDAY, 6TH SEPT., TO FRIDAY, 3RD NOV., 9 WEEKS.

HOURS.	Monday	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY
8.30	Obligations. Mr. A. Geoffrion	Procedure. Mr. Gordon Macdougall.	Obl.	Procedure.	Obl.
4.00	Roman Law. The Dean.	Rom.	Constitutional Law, The Dean,	Rom.	Rom.
5.00	Legal History. Pro . McGoun.	Persons. Prot. Lafleur.	Hist.	Persons.	Hist.

### MONDAY, 6TH NOV., TO FRIDAY, 15TH DEC., 6 WEEKS.

Hours.	MONDAY.	TUFSDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	Ob!.	Procedure.	Obl.	Proced.	Obl.
4.00	Rom.	Rom.	Const.	Rom.	Rom.
5.00	Real Rights. Prof. Marler.	Persons.	Real Rights.	Persons.	Real Rights

### CHRISTMAS. Monday, 8th Jan., to Friday, 19th March, 9 weeks.

Jours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY
8.30	Obl.	Constitutional Law. The Dean.	Obl.	Const.	Obl.
4.00	Rom.	Rom.	Rom.	Rom.	Rom.
5.00	R. R. 3 wks.		R. R.		R. R.

### MONDAY, 12TH MARCH, TO FRIDAY, 30TH MARCH, 3 WEEKS.

Hours.	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY
8.30					
4.00	Rom.	Const.	Rom.	Const.	Rom.
5 00	Criminal Law. Prof. Mr. Justice Davidson.	Crim.	Crim.		Crim.
Lega Perso Real	an Law l History ons Rights edu <b>re</b>	25 " 25 "	Criminal . Constitution	nal	$\begin{array}{c} 50 \text{ lectures.} \\ 10 \\ 35 \\ \hline 310 \end{array}$

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### TIME TABLE.

### INTRODUCTORY LECTURE, TUESDAY, 5TH SEPT,, 4 P.M. SECOND AND THIRD YEAR STUDENTS.

### WEDNESDAY, 6TH SEPT., TO FRIDAY, 3RD NOV., 9 WEEKS.

Hours.	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	Gifts and Sub- stitutions. Prof. Mr. Justice Doherty.	Civ. Procedure. Mr. Ryan.	Gifts, &c.	С. Р.	Gifts, &c.
4.00	Marriage Covenants. Prof. Fortin.	Marriage Covenants.	Constitutional Law. The Desc.	Marriage Covenants.	Marriage Covenants.
5.00	Criminal Law. Prof. Mr. Justice Davidson.	Commercial Law. Prof. Macmaster	Crim.	Comm. Law.	Crim.

N.B.-The lectures on Gifts, &c., will begin Monday, 11 Sept.

MONDAY, 7TH NOV., TO FRIDAY, 16TH DEC., 6 WEEKS.

Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	Gifts, &c.	С. Р.	Gifts, &c.	с. Р.	Gifts, &c.
4.00	Minor Contracts. Prof. Fortin.	Minor Contracts.	Const.	Minor Contracts.	Minor Contracts.
5.00	Criminal.	Commercial Law.	Crim.	Comm. Law.	Crim.

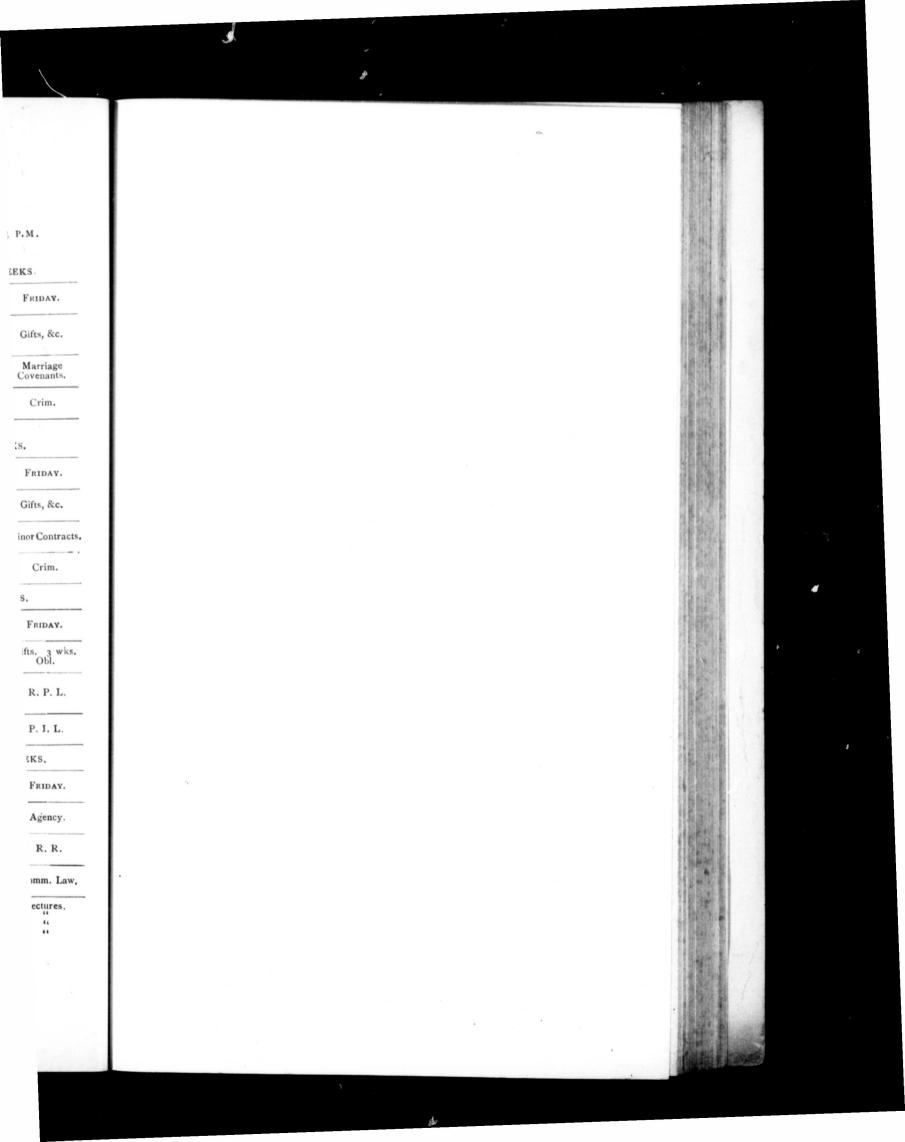
### MONDAY, 8TH JAN., TO FRIDAY, 19TH MARCH, 9 WEEKS.

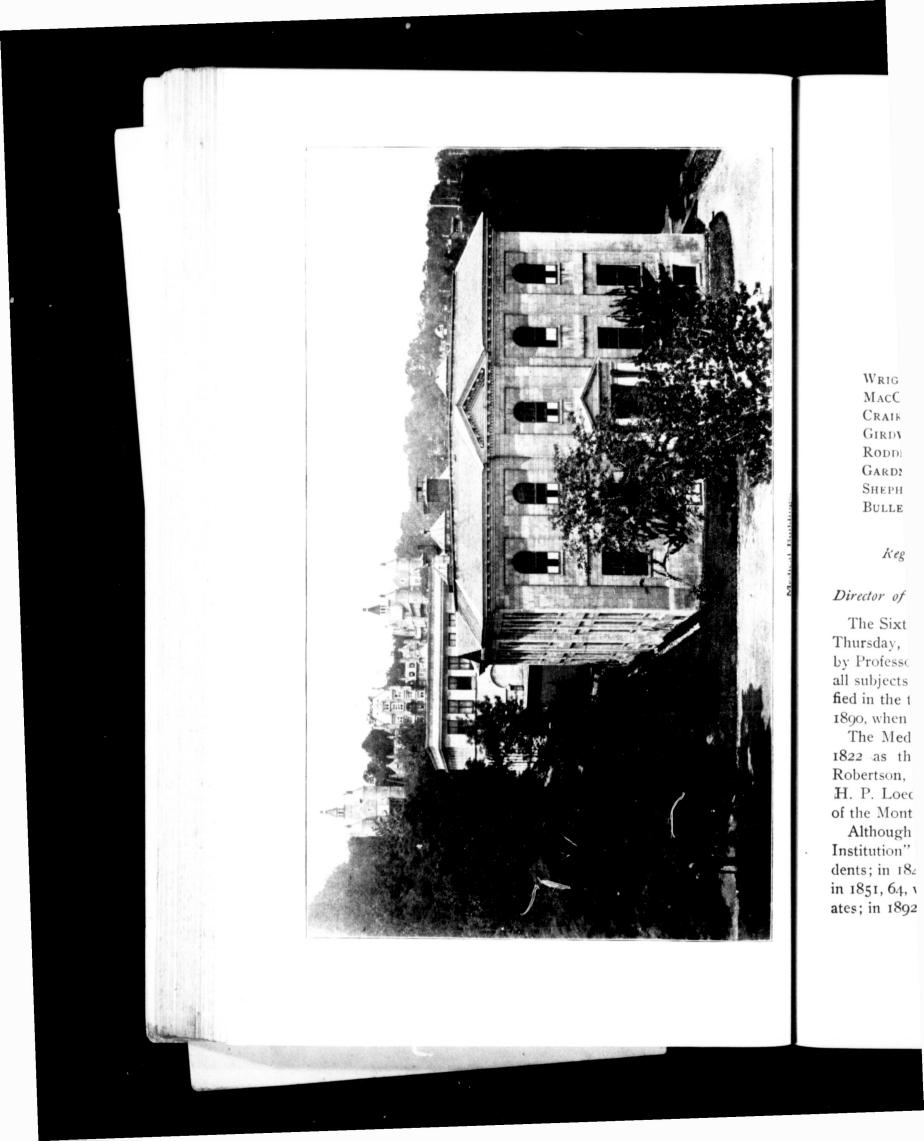
Hours.	MONDAY.	1 UESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	Gifts 3 wks. Obl. 6 wks.	Agency Prof. McGoun.	Gifts. 3 wks. Obl.	Agency.	Gifts. 3 wks. Obl.
4.00	Real Property Law. Prof. Marler. 6 weeks.	С. Р.	R, P. L.	С. Р.	R. P. L.
5.00	Priv. Internat. Law. Prof. Lafleur.	Commercial Law. Prof. Macmaster	P. I. L.	Comm. Law.	P. I. L.

### MONDAY, 12TH MARCH, TO FRIDAY, 30TH MARCH, 3 WEEKS.

Hours.	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	Agency.	Obl.	Agency.	Obl.	Agency.
4.00	R. R.		R. R.	Line	R. R.
5.00	Commercial Law.		Comm, Law.		Comm. Law
Com Ager Real Marr	and Substitution mercial Law hey and Partners Property Law riage Covenants. or Contracts	50 " hip 25 " 25 "	Procedure Internationa Constitution	aw al nal tal	40 lectures. 40 '' 25 '' 15 '' 320

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# faculty of Medicine.

THE PRINCIPAL (ex-officio.)

Professors.

WRIGHT, MACCALLUM, CRAIK, GIRDWOOD, RODDICK, GARDNER, SHEPHERD, BULLER, STEWART, WILKINS, PENHALLOW, MILLS, CAMERON, BLACKADER, RUTTAN, BELL,

Adami, Birkett, Finley, Lafleur, Armstrong, Johnston, Burgess, Martin.

Dean.-R. CRAIK, M.D., LL.D. Kegistrar.-R. F. RUTTAN, B.A., M.D., F.R.S.Can. Librarian.-F. G. FINLEY, B.A., M.D.

Director of Museum.-J. G. ADAMI, M.A., M.D., F.R.S. (EDIN.)

The Sixty-seventh Session of this Faculty will be opened on Thursday, September 21st, 1899, by an introductory lecture by Professor William Osler, at 3 p.m. The regular lectures in all subjects will begin on September 22nd, at the hours specified in the time-tables, and will be continued until May 25th, 1890, when the annual examination will begin.

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 1895-96, 419, with

90 graduates; in 1898-99 the session just completed, 436, with 70 graduates.

There were no sessions held during the political troubles from 1836 to 1839, and it is owing to this fact that the present is the 67th session of the Faculty. This is in reality the seventieth 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 was occupied ior 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 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 build ready in 1 These t His Excel sity, Janua The nev of the old Carlton roa They conn with the old room, capal preparation logy, Physi Science. T been greatly floor has be consists of room, prepa rooms, and a On the gro greatly enlarg furnished as the extensive sulted.

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erosity operty o erect new buildings and extensively alter and improve those already in use.

These buildings were completed and officially opened by His Excellency, the Earl of Aberdeen, visitor of the University, January 8th, 1895.

The new buildings have been erected as an extension of the old ones, towards the northwest. 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 enlarged and improved; the whole of the second floor has been devoted to the department of anatomy, and consists of dissecting-room, anatomical museum and boneroom, 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 Gynæcology, 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, cloak rooms with numerous lockers for use of students, the Lavatory, etc., recently furnished with the most modern sanitary fittings.

### 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

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rooms, two 'capable of comfortably seating about 300 students, and one for general lectures, sessional 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 portions of the building, and, in addition, commodious lockers can be procured 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 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 31 feet in breadth and the other arm 45 by 32. 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 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 the demonstrators of anatomy.

#### **Fhysiological Laboratories**.

The 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 rapidly growing and important branch of the medical curriculum. They cons for underg vanced wo room set a of the Prof is arranged at and taki well as unde A recent from private an additiona to extend, a partments o

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They consist of one large room forty-five by thirty-five feet for undergraduate 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 the more elaborate demonstrations, as well as undertaking experiments independently for themselves.

A recent grant from the Faculty, which was supplemented from private sources, has allowed of the partial equipment of an additional branch of the subject which it is the intention to extend, as well as to augment the resources of other departments of practical physiology in the immediate future.

#### 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. Students are given special facilities for 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.

#### 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; and tables arranged for teaching dispensing and the preparation of medicines.

#### Chemical Laboratory.

The Chemical Laboratory is large, lofty, and lighted from three sides. It can accommodate 124 men, but only a much smaller number is 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 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, giving the student unsurpassed advantages for acquiring a sound and practical knowledge of medical chemistry.

#### Pathological Laboratories.

A 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.

#### Endowments.

The first endowments of the Faculty were the "Leanchoil" and "Campbell Memorial" funds. The former was a gift of Lord Strathcona; the latter subscribed by the citizens of Montreal and graduates of Medicine of the University. A portion of these funds was expended in increasing the laboratory and lecture room accommodation in 1885, the interest on the balance being applied to general maintenance.

In 1893 Lord Strathcona endowed the Chairs of Pathology

and Publi Faculty to quite up to Various of Physiol Mrs. John abled the 1 teaching w course to the This year Lord Strath in the nam Howard on to meet the Museum, an applied to r used to supp are now req expenses out The thank Morrice, who upwards of th ing the equip

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and Public Health with \$100,000. This gift enabled the Faculty to equip and develop these departments until they are quite up to the requirements of modern medical science.

Various other endowments, such as the Drake Endowment of Physiology and the bequests of the late Mrs. Mary Dow, Mrs. John MacDougall and Miss Jane Learmont, have enabled the Faculty to maintain a high standard of laboratory teaching without proportionately increasing the cost of the course to the student.

This year the Faculty has great pleasure in announcing that Lord Strathcona has again come to its aid. He has promised in the names of Lady Strathcona and the Honorable Mrs. Howard one hundred thousand dollars, to be used partially to meet the cost of extending the Laboratories, Library and Museum, and partially as a fund, the interest on which is to be applied to replace the loss of the graduation fees, formerly used to support the Medical Library and Museum, but which are now required by the Governors for general university expenses outside the Faculty of Medicine.

The thanks of the Faculty are also due to Mr. David Morrice, who has recently come forward with a donation of upwards of three thousand dollars to meet the cost of increasing the equipment of the Laboratory of Pharmacology.

#### MATRICULATION.

I.

# I. REGULATIONS OF THE FACULTY OF MEDICINE OF MCGILL UNIVERSITY.

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 spring 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. Examinat and local c College only

COMPULS

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Book I. In both ( Latin, transl or easy narr be required. At the Se Latin equiva cation be ma least a fortni Mathematics.cimal Fr

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# Examinations begin on June 12th, 1899, in McGill College and local centres; and on September 14th, 1899, in McGill College only.

COMPULSORY SUBJECTS.

Latin.—Cæsar, Bell. Gall. Books I. and II.; Virgil, Aeneid, 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 be required.

At the September examination, other works in Greek or Latin equivalent to those specified may be accepted if application be made to the Secretary of the Examining board at least a fortnight before the day of examination.

Mathematics.—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, Indices, Surds and easy Quadratics; Problems leading to equations. Geometry. Euclid's 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. Candidates are required to state the class to which any subordinate sentence belongs and to arrange and define the various members of all sentences set. Failure in Analysis and Parsing will cause the rejection of the paper. West's Elements of English Grammar is recommended as a text-book, and attention is particularly directed to pages 197-216. 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.

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Gardiner's Outline of English History (Longmans) is recommended. *Composition.*—Candidates will write a short essay on a subject given at the time of the examination. *Literature.*—Scott's Lady of the Lake, ed. Stuart (Macmillan). Shakspere's Richard II., ed. Deighton (Macmillan), or Wordsworth (Arnold's Selections as specified in Junior Matriculation English [1899] of the University of Toronto).

**OPTIONAL SUBJECTS.** 

(One only of these subjects is required.)

- 1. 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.
- Physics.—Properties of Matter; Elementary Mechanics of Solids and Fluids, including the Laws of Motion, Simple Machines, Work, Energy; Fluid Pressure and Specific Gravity; Thermometry, the effects and modes of transmission of Heat. (See, for instance, Gage's Introduction to Physical Science, ch. I-V.)
- German.—The whole of Joynes' German Reader and Baumbach's Schwiegersohn (Heath & Co.), (or texts approximately equal in amount), together with a thorough knowledge of German accidence. Candidates must also be able to translate into German with tolerable correctness exercises approximately equal in difficulty to those contained in the first part of Vandersmissen's High School German Grammar or in the First and Second Parts of the Joynes-Meissner German Grammar (Heath & Co.).

Candidates who fail in one or more subjects at the June examination, or who have taken part only of the examination and preser will be exe which the qualified.

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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.

Ontario Candidates.— At the June examination, as well as the September one, candidates from Ontario may present an equivalent amount from the books prescribed for the Junior Matriculation Examination of the University of Toronto.

The Junior Leaving Examination accepted by the Universities of Ontario is acepted 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.e.*, 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 Possession (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 license 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 in any professional subject.

The requirements for this examination:

- LATIN.—Cæsar'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 Shakspere's plays, viz., Twelfth Night, for 1898, 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 Fénélon's Télémaque.

FRENCH.—For French-speaking candidates.—A critical knowedge of Molière's Le Bourgeois Gentilhomme, Fénélon's Aventures de Télémaque and La Fontaine's Fables, Bks. I., II., III., with questions of Grammar and Analysis.

> For *English-speaking* candidates.—Translation into English of passages from Fénélon's Télémaque, 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

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HISTORY.—Outlines of the History of Greece and Rome, and particular knowledge of the History of Britain, France and Canada.

- GEOGRAPHY.—A general view, with particular knowledge of Britain, France and North America.
- ARITHMETIC.—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.
- GEOMETRY.—Euclid, Bks. 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 Remsen'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 Hand-Book.

The Examinations will be held in September, 1899, at Quebec, and in June, 1900, at Montreal. 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, twenty 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 be 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.

### C. To obtain a license to Practice in Ontario.

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Every one desirous of being registered as a matriculated medical student in the register of the College of Physicians and Surgeons of this Province, except as hereinafter provided, must present to the Registrar the official certificate of having passed the "Departmental Pass Arts Matriculation Examination," and in addition Physics and Chemistry—whereupon he shall be entitled to be so registered upon the payment of twenty dollars and giving proof of his identity.

Graduates in Arts, in any University in Her Majesty's dominions, are not required to pass this examination, but may register their names with the Registrar of the College, upon giving satisfactory evidence of their qualifications, and upon paying the fee of twenty dollars.

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. of the required marks be taken, and that Physics be taken as the optional subject.

The New Brunswick Medical Board accepts the McGill Matriculation, as it is the same as that required for entrance to the Faculty of Arts.

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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, motify 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 John's; 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 Almanac in the 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. Dr. J. S. Gray, of Winnipeg, Manitoba, is the Provincial Registrar.

#### 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 to practice elsewhere in Canada are examined in professional subjects only. Dr. H. W. Bain, of Prince Albert, is Registrar of the Province.

#### 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. Dr. C. J. Fagan, of New Westminster, is the Provincial Registrar.

# II.

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# 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 21st of October next, for the Session of 1899-1900.

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 this University may obtain a license to practice in the Province of Quebec without further examination if he has complied with the above regulations. Time Tab with his Lec

LECTUR

Anatomy ...

Physiology ....

Chemistry...

Zoology .....

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LECTURES

Anatomy..... Physiology.... Chemistry.... Pharmacology and

Therapeutic

LABORATORY WORK

Auatomy. .....

† Prac. Chemistry

†Prac. Physiolog

tHalf the class NOTE—Student to attend the Out P t endance to average TIME TABLE FOR SESSION 1898-99

Time Tables for the Session of 1899-00 will be issued to each student with his Lecture Room ticket on enregistration. TIME TABLE OF FIRST YEAR LECTURES.

111113	TADDI	L'OF I	TROL	TEAL	L LLC	I U IUEA	5.
LECTURES.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Lecture Theatre.
Anatomy	9	9	9	9	9	{	Autumn & Winter Terms-No I,
Physiology	4	4		4			No. I.
		3	· · · · · · ·	3	3	{	Autumn Term No III.
Chemistry			2		2	{	Winter and Sprin Terms-No, III
Zoology		11	· • • • • • •	11		10 }	Autumn & Winte Terms.
Botany		4		4			Autumn Term.
LABORATORY Work.							
Practical Anatomy	$10 - 12\frac{1}{2}$	$10 - 12\frac{1}{2}$	$10 - 12\frac{1}{2}$	10-121	$10 - 12\frac{1}{2}$	$9-12\frac{1}{2}$	
*Prac. Physiology			3-5				
*Prac. Histology	2-4				4-6	10-12	
*Prac. Chemistry.	9-11	9-11	9-11	9-11			Autumn Term.
*Prac. Biology	3-5		3-5				Autumn Term.
*Class taken in di	vision.		1				1
TIME T	ABLE	OF 8	ECONI	D YEA	R LEO	TURE	8. •
LECTURES.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Lecture Theatre.
Anatomy	9	9	9	9	9	{	Autumn & Winte Terms -No, I.
Physiology	2		2		2		No, I.
Chemistry	3		3		3		
Pharmacology and Therapeutics	4		4		4		No. I,
LABORATORY WORK.							
Auatomy	10	10	10	10	10	10	
Auatomy	12.30	12.30	12.30	12.30	12.30	12.30 {	Autumn & Winte Terms.
† Prac. Chemistry	9-11	9-11	9-11	9-11	9–11	9-11	Spring Terms
†Prac. Physiology.		2-4		2-4		<b>.</b>	

<sup>†</sup>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. (11 a.m. to 1 p.m.); at-t endance to average two hours per week. Certificates required for graduation,

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Gynæcology	9			9			п
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urgery.	10		*12-1		10		iii
urisprudence )							
and Mental Diseases	11	••••	•••••	11	•••••		II
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and Therapeutics		11			11		III
en. Pathology	5		9				
and Bacteriology.	0		9	· · · · · · ·		· · · · · · ·	111
Iygiene Iorbid Anatomy		9	· · · • • • •		9	*9-11	III
linical		1 p.m.		2 p.m		*9-11	
Medicine }		MGH		RVH			
linical	2 p.m.				1 p.m.		
Surgery	RVH	4-6	4-6	4-6	MGA 4-6		Path. Lab. Winter.
Clinical and		4-0	4-0	4-0	4-0		) rath. Lao. winter.
Sanitary Chemistry		4-6	4-6	4-6	4-6		Chem. Lib. Autumn
Bacteriology and Hygiene		4-6	4-6	4-6	4-6		Path. Lab. Autumn
Clinical Microscopy		4-6	4-6	4-9	4-6		Path, Lab. Spring
Operative Surgery		4-6	4-6	4-6	4-6		Anat. Lab. Spring
*Alternate weeks M.G.F TIME TABL				Optional YEA			
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TIME TABL LECTURES.  ynæcology. bostetrics Iedicine. urgery Ied, & Surg. Pathology. Out Patients' Clinics Unical Medicine Unical Surgery Gynæcological Operations Clinics Clinics Clinics Clinical Clinics Clinics Clinical Clinical Clinics Clinical Clinica Cli	E OF Mon.	FOU Tues. 9 10  11-12 12-1  11  4 4 	RTH	YEA	AR L Fri. 11 10 11-12 12 1 12 1 2 	ECTU	URES. Lect ure Theatre. II III III III III III III II
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# TIME TABLE OF THIRD YEAR LECTURES.

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\*In groups of eight or ten. †In groups of four. ‡Alternate weeks M.G.H. and R.V.H.

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# 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.

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# ANATOMY.

# PROFESSOR, FRANCIS J. SHEPHERD.

LECTURERS, LECTURERS, SENIOR DEMONSTRATOR, J. G. MCCARTHY. DEMONSTRATORS, ASSISTANT DEMONSTRATORS, LECTURERS, J. A. SPRINGLE. R. TAIT MACKENZIE. J. A. HENDERSON. J. J. ROSS. A. E. ORR. A. T. BAZIN. H. M. CHURCH. W. G. REILLY. R. A. WESTLEY.

Anatomy is taught in the most practical manner possible, and its relation to Medicine and Surgery fully considered. 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 direct control and personal supervision of the Professor of Anatomy, assisted by his staff of Demonstrators.

The methods 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 on 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 can be obtained, owing to the Anatomy Act of the Province of Quebec. The cour the first yea Physics and In the seco embrace its cludes a cou illustrated b ped with all

# LABORA

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# CHEMISTRY.

#### PROFESSOR, GILBERT 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.

# PROFESSOR, 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 is given, in which the student is 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.

The JOSEPH MORLEY DRAKE, PROFESSOR.—WESLEY MILLS. LECTURER, W. S. MORROW.

DEMONSTRATORS, J. W. SCANE and A. A. ROBERTSON.

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

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the physical, the chemical and other aspects of the subject receive attention.

In addition to the use of diagrams, plates, models, etc., 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 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, d gestive 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 important physiological principles.

#### HISTOLOGY.

# PROFESSOR, GEO. WILKINS. DEMONSTRATOR, N. D. GUNN.

The teaching of Histology and Microscopical methods is spread over two years.

During the latter half of the first year a course of demonstrations is given upon elementary Histology and systematic Histology up to and including the digestive system. During the second year fifteen or twenty demonstrations will be given upon the whole of Histology. The practical instruction upon the p during the ten will be

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upon the preparation and mounting of specimens is given during the first year. Examinations both practical and written will be held at the end of both first and second years.

# PHARMACOLOGY AND THERAPEUTICS. PROFESSOR, A. D. BLACKADER. DEMONSTRATOR, R. A. KERRY.

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 is given to the therapeutic application of all 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 general and special Therapeutics.

#### MEDICINE.

DEMONSTRATOR, S. RIDLEY MACKENZIE.

While the lectures on this subject are mainly devoted to Special Pathology and Therapeutics, no opportunity is lost of illustrating and explaining the general laws of disease.

#### Sec.

With the exception of certain affections seldom or never observed in this country, all the important internal diseases of the body, except those peculiar to women and children, are discussed, and their Pathological Anatomy illustrated by the large collection of morbid preparations in the University Museum, and by fresh specimens contributed by the Professor of Pathology.

The College possesses an extensive series of Anatomical plates and models illustrative of the Histological and Anatomical appearances of disease, and the wards of the General and Royal Victoria Hospitals afford the lecturer ample opportunities to refer to living examples of very many of the maladies he describes, and to demonstrate the results of treatment.

### CLINICAL MEDICINE.

#### PROFESSOR, JAMES STEWART. ASSOCIATE PROFESSORS, F. G. FINLEY and H. A. LAFLEUR. ASSISTANT PROFESSOR, C. F. MARTIN.

The instruction in Clinical Medicine is conducted in the theatres, wards, out-patient rooms and laboratories of the Royal Victoria and Montreal General Hospitals

The courses include:---

I. The reporting of cases by every member of the Graduating Class, a certain number of beds being assigned to each student.

II. Bedside instruction for members of the Graduating Class.

III. Two Clinics weekly in each hospital.

IV. Tutorial instruction for the Junior Classes, in the wards and out-patient rooms of both hospitals.

V. Instruction in Clinical Chemistry and Bacteriology.

#### SURGERY.

#### PROFESSOR, THOMAS G. RODDICK. LECTURER, 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 obtained fr greater par of Surgery which hav The variou and applica Surgery for

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III. Beds student is re assist in the case reportir

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obtained from cases under observation at the Hospitals. The 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, A. E. GARROW.

DEMONSTRATORS,

KENNETH CAMERON. J. M. ELDER. J. ALEX. HUTCHISON.

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 10 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 patients and to take part in the application of a variety of surgical dressings and appliances.

#### OBSTETRICS AND DISEASES OF INFANTS.

# PROFESSOR, J. CHALMERS CAMERON. DEMONSTRATOR, D. J. EVANS. ASSISTANT DEMONSTRATORS, { T. P. SHAW. JAMES BARCLAY.

This course will embrace: 1. Lectures on the principles and practice of the obstetric art, illustrated by diagrams, fresh and preserved specimens, the artificial pelvis, complete sets of models illustrating deformities of the pelvis, wax preparations, bronze mechanical pelvis, &c. 2. Bedside instruction in the Montreal Maternity, including external palpation, pelvimetry, the management and after treatment of cases. 3. A complete course on obstetric operations with the phantom and preserved foetuses. 4. The diseases of infancy.

5. A course of individual clinical instruction at the Montreal Maternity.

Arrangements have now been made for a graded course in Obstetrics, instruction being given separately to third year and final students.

Particular attention is given to Clinical instruction, and a Clinical examination in Midwifery similar to that held in Medicine and Surgery now forms part of the final examination.

A short course of lectures on diseases of infancy is given, supplemented by Clinical demonstration and ward work.

#### GYNÆCOLOGY.

# PROFESSOR, WM. GARDNER. LECTURER, F. A. M. LOCKHART.

The didactic course is graded, and consists of from forty to forty-five lectures given at intervals alternating with the lectures on Obstetrics and extending throughout the session. The anatomy and physiology of the organs and parts concerned is first discussed. Then the various methods of examination are fully described, the necessary instruments exhibited, and their uses explained.

The diseases peculiar to women are considered as fully as time permits, somewhat in the following order:—Disorders of Menstrua Genital Org ments of the flammations and Malignan Diseases of t trated as fully

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# LECTURER ON

This course in its Medical tention is devo microscopic an scribed and sho in its different so well adapted minute quantiti in the diagnosis In addition to t of this kind, To of Menstruation; Leucorrhœa; Diseases of the External Genital Organs; Inflammations, Lacerations and Displacements of the Uterus; Pelvic Cellulitis and Peritonitis and Inflammations of the Ovaries and Fallopian Tubes; Benign and Malignant growths of the Uterus; Tumours of the Ovary; Diseases of the Bladder and Urethra. The lectures are illustrated as fully as possible by drawings and morbid specimens.

Clinical teaching, including out patient and bed-side instruction, is given at both Royal Victoria and Montreal General hospitals by Professor Gardner and Doctors Lockhart and Webster. 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 out-patient Gynæcological Clinic, to which advanced students are admitted in rotation and instructed in digital and bi-manual examination and in the use of instruments for diagnosis.

Particular attention is thus given to Clinical instruction, and a Clinical examination in Gynæcology similar to that held in Medicine and Surgery now forms part of the final examination.

#### MFDICAL JURISPRUDENCE.

# PROFESSOR, GEO. WILKINS.

# 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

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lly as rders of poisons, general evidence of poisoning and classification of poisons are first treated of, after which the more common poisons are described, with reference to symptoms, postmortem appearances and chemical tests. The post-mortem appearances are illustrated by plates, and the tests are shown to the class. A series of demonstrations and Clinics will be given by Prof. Johnston on the Medico-Legal cases arising out of the coroner's court, as well as those in the Montreal General Hospital. In this way Students will have practical clinical instruction in methods of Medico-Legal investigation in civil as well as in criminal cases.

#### OPHTHALMOLOGY AND OTOLOGY.

# PROFESSOR, F. BULLER. 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.

#### BIOLOGY.

#### D. P. PENHALLOW, PROFESSOR BOTANY. E. W. MACBRIDE, "ZOOLOGY.

This course will be given during the Autumn term of the first session; it will be largely practical, and will consist of Zoology and Botany. Zoology, the first eight weeks; Botany, the last four weeks.

#### A.-Animal Biology.

The Course in Animal Biology will discuss the fundamental properties of protoplasm; the principles of the formation of tissues; ture and cel'a, H Two

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tissues; the formation of organs; an outline of vertebrate structure and function, as exemplified by Paramecium and Vorticel'a, Hydra, Lumbricus and the Dog-fish.

Two lectures and one laboratory period each week.

# B.—Plant Biology.

The Course in Plant Biology will deal chiefly with the general properties of cytoplasm; the structure and nature of the plant cell; movement; nutrition; respiration; fixation of carbon; division of labor and origin of organs; evolution of plant forms. These principles will be illustrated in their more simple forms by a Myxomycete, Pleurococcus, Spirogyra and Oedogonium, Fucus, Anthoceros and Pteris.

Two lectures and one demonstration each week.

# PATHOLOGY.

The SIR DONALD SMITH, PROFESSOR,—J. G. ADAMI. DEMONSTRATOR, A. G. NICHOLS. ASSISTANT DEMONSTRATORS, D. D. MACTAGGART, D. P. ANDERSON.

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 Roya' Victoria Hospital, and by Dr. Wyatt Johnston at the General Hospital.

#### Practical Courses.

4. The performance of autopsies. Each student 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 the 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. In connection with this department, two researches and teaching fellowships have been established; one by the Faculty of Medicine, and one by the Governors.

#### DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE.

The SIR DONALD SMITH, PROFESSOR,-ROBT. CRAIK.

SANITARY PHYSICS ( PROF. ROBT. CRAIK. AND CHEMISTRY. | PROF. R. F. RUTTAN. BACTERIOLOGY AND PREVENTIVE MEDICINE.

PROF. J. G. ADAMI. PROF. WYATT JOHNSTON. H. B. YATES. A. J. WILLIAMS.

The Department of Public Health and Preventive Medicine has, owing to its endowment by Sir Donald A. Smith, been made one of the most important subjects of the third year.

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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, ventilation, 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 clin.ate 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 equipped 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.

#### LARYNGOLOGY AND RHINOLOGY.

(See Museums.)

PROFESSOR, H. S. BIRKETT. DEMONSTRATOR, H. D. HAMILTON.

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.

#### PROFESSOR, 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.

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# PROFESSORS, { A. D. BLACKADER. J. C. CAMERON.

Although this subject does not constitute a special chair in the 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.

# 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 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). 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. To see Medical year to of each ance on tions mu Fourth the full been con A cert the profe entrance pleted tw the prese

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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 end 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.

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.

# ν.

# 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 1900.

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, etc. This course will last about six weeks, beginning about the first 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, Pharmacology, 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 have been open for graduates since May 1st, 1896.

Further details regarding courses, fees, etc., may be obtained on application to the Registrar.

#### THE GRADUATE COURS 2 OF 1899.

The Faculty of Medicine has just completed the fourth special course of instruction for general practitioners. This course began Tuesday, May 2nd, and closed June 10th, 1899.

The course consisted of:-

(A.)—LABORATORY COURSES—Systematic laboratory instruction was given from 9 to 10.30 every morning in Microscopical Methods, Clinical Microscopy and Clinical Bacteriology, including the histology of blood in disease and serum diagnosis. These courses were conducted by Profs. Adami and Wyatt Johnston, assisted by Drs. C. F. Martin, N. D. Gunn, Nichols, Anderson and Yates. A course of Operative Surgery on the cadaver was given by Prof. Armstrong from 5 to 6 p.m. during the second, third and fourth weeks of the course.

# (B.) TIONS to mid Moder Midwif gess; ston; ( trations Clinical tions ( zie: Su

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(B.) – LABORATORY AND SPECIAL DEMONSTRA-TIONS – These demonstrations were given daily from 10.30 to mid-day, and consisted of one or more of the following : Modern treatment of Diphtheria, Prof. Finley; Operative Midwifery, Prof. J. C. Cameron; Mental Diseases, Dr. Burgess; Medico-Legal Autopsy Methods, Prof. Wyatt Johnston; Clinical use of Roentgen Rays, Prof. Girdwood; Illustrations of the Graphic Method as applied to Physiology and Clinical Medicine, Prof. W. Mills; Anatomical demonstrations on the Cadaver, Drs. McCarthy and Tait MacKenzie; Surgical Anatomy, Drs. Elder and J. Henderson; Clinical Chemistry and Urinalysis, Prof. Ruttan; Morbid Anatony of certain diseases, Prof. Adami; Infant feeding (Modified Milk, etc.,) Dr. Evans.

(C.) – **MEDICAL AND SURGICAL CLINICS**. – For four days each week, during the first two hours of the afternoon, there were clinics on groups of cases in the wards of the Montreal General and Royal Victoria Hospitals. Those given in the Medical Wards of the Montreal General Hospital were given by Profs. Blackader and Lafleur; in the Surgical Wards, by Prof. Shepherd and Dr. Elder; in the Royal Victoria Hospital Medical Wards, by Prof Stewart and Dr. C. F. Martin; in the Surgical Wards, by Prof. Bell and Dr. Garrow. In addition two or three ward classes were given weekly.

(D.)-CLINICS IN SPECIAL DEPARTMENTS OF ME-DICINE AND SUBGERY- One or more of these clinics were given in the Hospitals each afternoon, after the regular Medical or Surgical Clinic, and during the entire afternoon on Wednesday and Saturday of each week. The following special Clinics were given: Ophthalmology in the Royal Victoria Hospital, by Prof. Buller; in the Montreal General Hospital, by Dr. J. Gardner; Dermatology, Prof. Shepherd; Genito-Urinary Surgery, Prof. Bell; Orthopedics, Dr. C. W. Wilson; Laryngology, Prof. Birkett and Dr. Hamilton; Gynaecology, Prof. Wm. Gardner and Dr. Webster in the Royal Victoria Hospital, and Dr. Lockhart in the Montreal Gen-

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eral Hospital; Aseptic Midwifery (at the Montreal Maternity Hospital), Prof. J. C. Cameron; Diseases of Children, Prof. Blackader and Dr. G. G. Campbell.

The above course of instruction is given wholly apart from the regular lectures, clinics, etc., for undergraduates in medicine, and the Graduates may enter on the course at any time between May 1st and June 15th.

Practitioners who purpose attending this course may obtain programme of course for 1900 on application after March next to the Registrar. lst. to the D shall no months College 2nd. on produ shall be Subjects

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### VI. **QUALIFICATIONS FOR THE DEGREE.\***

1st. No one entering after September, 1894, 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.

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, Element-ary 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 flist 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:

ANATOMY. PRACTICAL ANATOMY. PHYSIOLOGY. CHEMISTRY. PHARMACOLOGY AND THERAPEUTICS. PRINCIPLES AND PRACTICE OF SURGERY. OBSTETRICS AND DISEASES OF INFANTS. GYNÆCOLOGY. THEORY AND PRACTICE OF MEDICINE. CLINICAL MEDICINE. CLINICAL SURGERY. MEDICAL JURISPRUDENCE. GENERAL PATHOLOGY HYGIENE AND PUBLIC HEALTH. PRACTICAL CHEMISTRY. OPHTHALMOLOGY AND OTOLOGY. BIOLOGY HISTOLOGY PATHOLOGICAL ANATOMY. BACTERIOLOGY. MENTAL DISEASES. PEDIATRICS. MEDICAL AND SURGICAL ANATOMY.

\* It shall be understood that the programme and regulations regarding courses of study and examinations contained in this calendar 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 bound to adhere absolutely, for the whole four years of a student's course, to the conditions now laid down.

† Students enregistered in the Province of Quebec are required to attend and pass examinations in Laryngology and Minor Surgery. ‡ Provided, however, that Testimonials equivalent to, though not pre-

sciely the same as those above stated, may be presented and accepted.

#### Of which Two full Courses will be required.

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Of which One Course will be required. 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.

6th. No one will be permitted to become a Candidate for 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 twenty-four months the practice of the Montreal General Hospital or 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 only the practice of the Out-Pavient departments of the Hospitals during their second year.

Sth 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 10 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.

10th. 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.

11. The trials to be undergone by the Candidate shall be in the subjects mentioned in Section 4.

12. The following oath of a firmation will be exacted from the Candidate before receiving his degree:

#### SPONSIO ACADEMICA.

In Facultate Medicinæ Universitatis.

Ego, A\_\_\_\_B\_\_\_\_,Doctoratus in Arte Medica titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo —me in omnibus grati a imi officiis erga hanc Universitatem ad extre num vitæ halitum perseveraturum; tum poro artem medicam caute, caste, et probe exercit\*turum; et quoad in me est, omnia ad ægrotorum corporu en salutem corducentia cum fide procu aturum; quæ denique, inter medendum, visa vel audita silere conveniat, non sine gravi causa vulg\*turum. Ita præsens 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. Frequ the Stuc through The F Session

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# 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 OF ZOOLOGY, HISTOLOGY, PHYSIO-LOGY, 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 their 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 CHEM-ISTRY, PHYSIOLOGY, HISTOLOGY, PHARMACOLOGY and THERA-PEUTICS.

### Third Year.

**Examinations** in PHARMACOLOGY and THERAPEUTICS, ME-DICAL JURISPRUDENCE, PUBLIC HEALTH and PREVENTIVE MEDICINE (including BACTERIOLOGY), GENERAL PATHOLOGY, MENTAL DISEASES, CLINICAL CHEMISTRY, OBSTETRICS, ME-DICINE and SURGERY.

### Fourth Year.

Examinations in MEDICINE, SURGERY, OBSTETRICS, GYNÆ-COLOGY, OPHTHALMOLOGY, CLINICAL MEDICINE, CLINICAL SURGERY, CLINICAL OBSTETRICS, CLINICAL GYNÆCOLOGY, CLINICAL OPHTHALMOLOGY and PRACTICAL PATHOLOGY.

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A minimum of 50 per cent. in each subject is required to Pass and 75 per cent. for Honors.

Candidates must pass in all the subjects of each year; those 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 by 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 all 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.

Candidates who fail to pass in a subject of which practical courses are required may, at the discretion of the Faculty, be required to repeat the 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.

### FELLOWSHIPS, MEDALS AND PRIZES.

The Faculty has begun to establish Teaching and Research Fellowships in connection with the various laboratories.

These fellowships are of a value of five hundred dollars per annum, and are tenable for three years.

Two are now established in connection with the department of Pathology—a Governor's Fellowship endowed by

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one or two of the Governors of the University, and a Faculty Fellowship established by the Faculty. Other Fellowships will be announced as they are established.

Ist. 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 Curriculum.

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 Holmes' medalist 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.

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 THERA-PEUTICS," 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.

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### FEES.

The total Faculty fees for the whole medical course of four full sessions, including clinics, laboratory work, dissecting material and reagents, will be *five hundred dollars*, payable in four annual instalments of \$125 each.

For the convenience of the undergraduates, the Hospital fees 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 grounds and athletics.

Students repeating the course of study of any Academic session are not required to pay full fees. A fee of twentyfive dollars will be charged, which will include Hospitals, dissecting material, chemical reagents, laboratory fees, etc. The same fee is charged students entering from other colleges who have already paid elsewhere fees for the courses taken.

It is suggested to parents or guardians of students that the fees be 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 20th.

For Graduation Fees, see page 228.

For Hospital Fees, see pages 243 and 247.

ANATOMY PRACTICA Ellis' marks PHYSICS.-INORGANIC mistry ORGANIC PRACTICAL. PHARMACO and W PHYSIOLOG ners, N Physio Labora PATHOLOGY PRACTICAL Prudde BACTERIOLC HISTOLOGY. tology. SURGERY .---- ] America PRACTICE OF CLINICAL M Klemper Diagnosi MEDICAL JUI MENTAL DIS 4th Ed. MIDWIFERY.-DISEASES OF GYNÆCOLOGY

# TEXT BOOKS

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ANATOMY.—Gray, Morris, Quain (Eng. Ed.)., Gervish. PRACTICAL ANATOMY.—Cunningham's Practical Anatomy, Ellis' Demonstrations, Holden's Dissector and Landmarks.

PHYSICS.—Balfour Stewart.

- INORGANIC CHEMISTRY.—Remsen, Wurtz's Elementary Chemistry.
- ORGANIC CHEMISTRY.-Renisen
- PRACTICAL CHEMISTRY.-Odling.
- PHARMACOLOGY and THERAPEUTICS.—Butler, White, Hare and Wood.
- PHYSIOLOGY.—Foster and Shore's Physiology for Beginners, Mills' Textbook of Animal Physiology, Foster's Physiology, G. N. Stewart's Physiology, Mills' Class Laboratory Exercises.
- PATHOLOGY.—Ziegler, Coats'.
- PRACTICAL PATHOLOGY.—Mallory and Wright, Delafield & Prudden, Boyce.

BACTERIOLOGY.-Muir & Ritchie, Abbott.

- HISTOLOGY.—Klein's Elements, Schafer's Essentials of Histology.
- SURGERY.—Holmes, Moullin, Walsham, Erichsen, Treves, American Text-book of Surgery, Da Costa.

PRACTICE OF MEDICINE—Osler, Tyson, Wood and Fitz.

CLINICAL MEDICINE—Musser's Medical Diagnosis; Simon, Klemperer, Rainy and Hutchison, Vierort's Medical Diagnosis.

MEDICAL JURISPRUDENCE.—Reese, Guy and Ferrier.

MENTAL DISEASES.—Insanity and its Treatment, Blandford, 4th Ed.

MIDWIFERY.-Lusk, and American Text Book.

DISEASES OF CHILDREN.—Holt, Rotch, Smith and Starr. GYNÆCOLOGY.—Hart and Barbour, Garrigues, Webster.

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HYGIENE.—Parks, Wilson, Rohe.

BOTANY.—Gray's Text Book of Histology and Physiology. ZOOLOGY.—Shipley (Invertebrata), Wiedersheim (Vertebrata). OPHTHALMOLOGY.—De Schweinitz, Nettleship and Swanzy. OTOLOGY.—Pritchard, Dalby.

LARYNGOLOGY.—Watson Williams and Karl Seiler, Grumwald's Atlas of Diseases of Larynx.

OPERATIVE SURGERY.—Jacobson, Treves, Kocher. DERMATOLOGY.—Malcolm Morris, Hyde, Crocker, Unna. MEDICAL DICTIONARY.—Gould, Dunglison, Hoblyn.

# 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 four 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 Museum of Pharmacy.

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 a.m. and 5 p.m.

#### PATHOLOGICAL MUSEUM.

PROF. J. G. ADAMI, DIRECTOR. MAUD E. ABBOTT, B.A., M.D., ASSISTANT CURATOR. M. JULES 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 ad-

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LATOR. LATOR. aterial furn collected ny medical world for

remely im-Auseum. s. 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 affected 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 different forms of calculi. The Faculty are mainly indebted to Prof. Fenwick for this collection.

During the past seven 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, multiple exostoses, &c., &c.

The Pathological Museum has recently 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 from the fresh specimens are mounted on swinging frames, and also form a frieze at the ceiling. These serve to recall the fugitive colors of those preparations which become more or less altered on keeping.

Numerous specimens have been contributed from the surgical and medical wings of the Royal Victoria Hospital, and from the different departments of the Montreal General Hospital.

### 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 Lord Strathcona and Mount Royal 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 sterilisation, 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.

The Director has much pleasure in acknowledging contributions of value from:

1. The Sanitary Construction Company of New York.

2. Richard King, King, Sprague & Co., New York.

3. Maignens Filtre Rapide Co., London, Eng.

4. L. Casella, London, Eng.

5. Messrs. Doulton & Co., Lambeth Pottery, London, E.C.

6. The Sanitary Institute, Parke's Museum, London.

7. The Hygienic Referendum, Hornsey, London, Eng.

8. Messrs Newton & Co., London.

9. The Expanded Metal Co., London.

10. A. B. Reck, Copenhagen, Denmark-

11. Fischer Filter Plate Co.

12. J. W. Hughes, Montreal.

13. Wormser, Filterplatten-Werk, Worms, Germany.

14 The Laing Packing Company, Montreal.

The Department of Hygiene is also indebted to Mr. Fleming, Sanitary Engineer, for assistance and advice.

### ANATOMICAL MUSEUM.

### DIRECTOR, PROFESSOR F. J. SHEPHERD.

M. JULES BAILLY, OSTEOLOGIST AND ARTICULATOR. This Museum occupies a large room on the same floor and adjoining the Anatomy Lecture Room and Dissecting Room.

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Smaller apartments in connection are used for 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 few years added a very complete collection of plaster and papier maché 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.

During the past year numerous valuable specimens have been presented to the Museum and its stores, which will be acknowledged in the next Calendar.

# XII.

# LIBRARY.

# LIBRARIAN, PROF. F. G. FINLEY. ASSISTANT LIBRARIAN, Miss M. R. CHARLTON.

The Library of the Medical Faculty now comprises upwards of twenty thousand volumes, the largest special library connected with a medical school on this continent.

The valuable libraries of the late Professors Robert Palmer Howard, George Ross, Richard L. MacDonnell, T. Johnston Alloway and of Dr. Allen Ruttan have been donated to the Medical Faculty.

The standard text-books and works of reference, together with complete files of the leading periodicals, are on the shelves. Students may consult any work of reference in the library between 9 a.m. and 6 p.m. A library reading-room for the use of students is provided.

### EXTRACTS 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 6 p.m. During vacation from 10 a.m. to 5 p.m.

II. The stack room is not open to students or to the public.

III. The books in the Library are classed in two divisions: Ist, those which may be taken from the Library; 2nd, those which may not, under any circumstances, be removed from the Library. The latter class includes all catalogues, dictionaries and encyclopædias.

IV. Students will be allowed to use regular text-books only in the Library. Any other book may be taken out at 5.30 p.m., to be returned at the next day. If books so removed from the Library are not returned punctually, a fine will be imposed, and if the delay be serious the student may be suspended from use of the Library at the discretion of the Librarian.

V. Students may take out books, subject to the above regulations, to the number of three volumes at one time.

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# VI. Books may be taken from the Library only after they have been especially asked for and charged at the delivery desk; borrowers who cannot attend personally must sign and date an order, giving the titles of the books desired and the name of the person deputed to procure the same.

VII. 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 debarred from the use thereof for such time as the Library Committee may determine.

VIII. Silence must be strictly observed in the Library.

IX. Infringement of any of the rules of the Library will subject the offender to a fine or suspension of his privileges, or to such other penalty as the nature of the case may require.

The number of volumes presented to the Library from June 4th, 1898, to May 25th, 1899, is. . . . 850

Those added by purchase	130
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Total additions to May 25th	980
The number of pamphlets and reports	200
The attendance of readers from June 4th, 1898, to	
May 25th, 1899, has been	8,008
The attendance from June 2nd, 1897, to May 14th,	
1898, was	6,350
The attendance from June 1st, 1896, to June 1st,	
1897, was	5,920
The attendance from June 1st, 1895, to June 1st, 1896,	
was	4,875
The number of books taken out for home use has	
been	3,209
The number of Journals and pamphlets has been	

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This does not include the works consulted in the Library.

The Faculty has endeavored to make the Library as complete as possible for research work. Complete files of almost all the important periodicals are now on the shelves, including foreign as well as English and American Journals. A large number of transactions arious societies has recently been acquired, and also the anal Paris theses.

Arrangements have been ...... whereby practitioners both in the city and country can about themselves of the library, the only conditions being the payment of express charges and a guarantee for the safe return of books borrowed.

# 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 1st, and all papers shall be subject to the call of the Committee on October 1st. All papers shall be handed in for examination on or before January 10th.

The Students' reading room has been placed under the control of this Society, in which the leading English and American 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 following officers are elected: Hon. President, elected from the Faculty; President, Vice-President, Secretary, Assistant Secretary, Treasurer, Reporter, Pathologist, and three Councilmen (of whom two shall be elected from the Faculty). This Student in smal \$20 per spected Secretar Janitor

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# XIV.

# COST OF LIVING, &c.

This will, of course, vary with the tastes and habits of the Student, but the necessary expenses need not exceed those in smaller 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.

# 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: (1.) 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 Greenshields Memorial, and of a new surgical theatre. The interior of the older buildings now has been entirely reconstructed on the most approved modern plans.

The Royal Victoria Hospital at the head of University Street, which in structure and arrangements ranks among the finest modern hospitals of either continent, 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, etherising, instruments, sterilising 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 150 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 there is ample accommodation for the various special departments as well as large rooms for general medical and surgical patients.

The Pathological Department is a completely new building in which are the post-mortem theatre and rooms for microscopical and bacteriological work, and also a mortuary and chapel. In this building students are offered every opportunity of perfecting their knowledge of morbid anatomy and pathological histology.

The old Fever Wards on the grounds of the Hospital have been completely remodelled, and are now used as a laundry and kitchen. A Mont pital. thous wards as ma of res thousa ment of Ann pital m price \$

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ospital have as a laundry 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.

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 College. 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 immediate connection with which is the 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

<sup>\*</sup> Fees for this hospital are the same as those for the Montreal General Hospital

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 three 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.

A new wing will be opened in the autumn of 1899 for the treatment of out-patients, and will contain special operating rooms for Gynaecology, Ophthalmology, Laryngology, etc.

# XVI.

# CLINICAL INSTRUCTION.

During the Session of 1899-00, three Medical, three Surgical, two Gynaecological and two Ophthalmological clinics 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, and Laryngology. eye and tals, will iliar with make the and it is practical Surgery. thalmic 5 and Stud practicabl they rema

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n in these ms and lathe Montgology and he GenitoCLINICAL CLERKS in the medical and surgical wards of both Hospitals are appointed every three months, and each one during his term of service conducts, under the immediate directions of the Clinical Professors, the reporting of all cases in the ward allotted to 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 Gynaecology and Laryngology, presided over by Specialists in these branches. Students are thus enabled to acquire special technical knowledge under skilled direction. The plan of teaching practical 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.

A special clinic for diseases of the Genito-Urinary Organs has been established at the Royal Victoria Hospital.

Infectious diseases and Insanity will also be taught clinically, the former 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 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 Tarnier-Budin 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 convalescence. 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 being paid to the important subject of infant feeding. The Walker-Gordon 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 resident accoucheurs are appointed yearly from months Fee Hospit

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Fee for twelve months, \$12.00, payable at the Maternity Hospital.

# XVII.

# STUDENTS' APPOINTMENTS.

Montreal General Hospital-Seven Resident Medical Officers.

The following were the candidates at the examination, successful for vacant positions on the house staff of the Montreal General Hospital, for the year beginning September 1st, 1899: —R. A. A. Shore, B.A., M.D.; A. H. Gordon, M.D.; C. T. Fitzgerald, M.D.; W. A. Cumming, M.D.; W. F. Brown, B.A., M.D.; T. G. McNeice, W. A. Wilkins. Royal Victoria Hospital—Six Resident Medical Officers.

The following graduates in 1899 were appointed to fill vacancies in the Royal Victoria Hospital.

In Medicine, E. F. Murphy, T. Turnbull.

In Surgery, T. R. O'Brien, B.A.

In Ophthalmology, F. T. Tooke, B.A.

University Maternity-Two Resident Medical Officers.

James Barclay, M.D., was appointed in 1898.

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.

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# 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.

5. Any Student found guilty of dishonest conduct at an examination, may be expelled from the University or suspended for a term of years. ent may, at re the classpline, after the Dean reprimand next meets.

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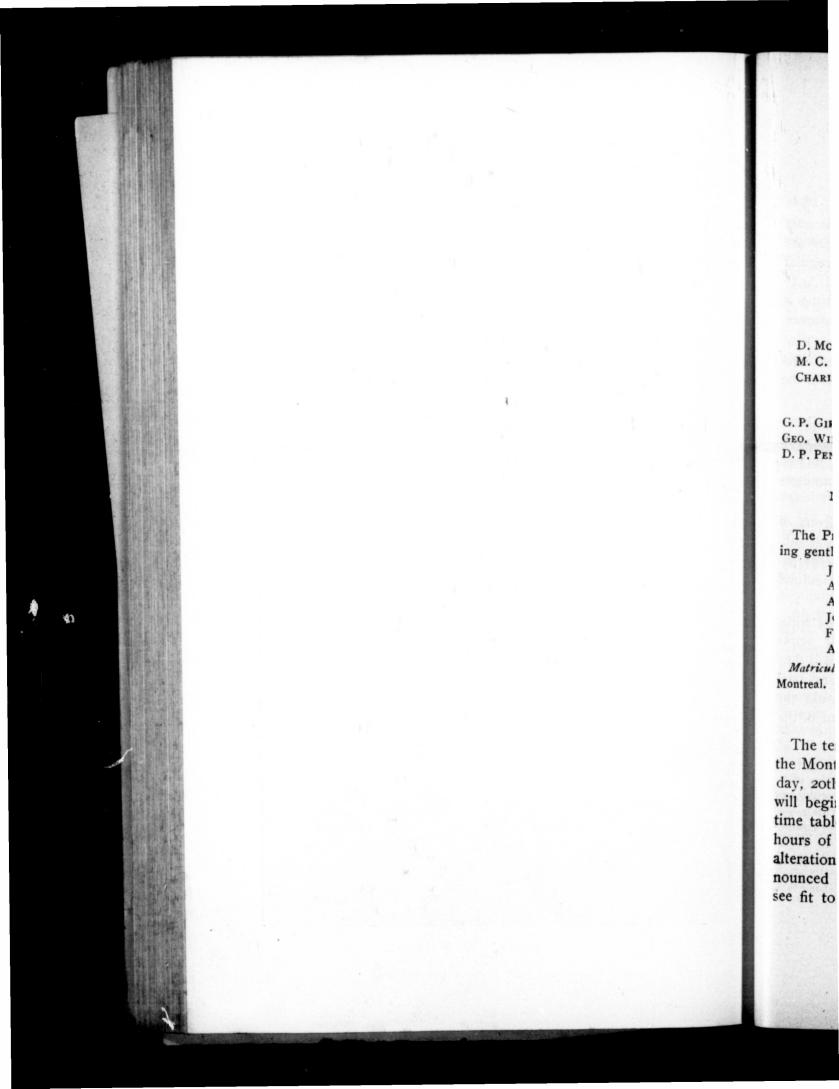
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University Library. Main Reading Room.



Redpath Museum Interior View.



# faculty of Comparative Medicine and Veterinary Science.

# THE PRINCIPAL (ex officio).

Professors :

D. MCEACHRAN, F.R.C.V.S., V. S. Edin., D.V.S., Dean of the Faculty. M. C. BAKER, D.V.S. CHARLES MCEACHRAN, D.V.S., Registrar of the Faculty.

#### Associate Professors :

G. P. GIRDWOOD, M.D. GEO. WILKINS, M.D. D. P. PENHALLOW, B.SC.

WESLEY MILLS, M.A., M.D., D.V.S. J. G. ADAMI, M.A., M.D. (Cantab.).

#### Lecturers :

N. D. GUNN, M.D.

C. F. MARTIN, B.A., M.D.

Examiners :

The Professors and Associate Professors, together with the following gentlemen nominated 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 York.

A. W. CLEMENT, D.V.S., Baltimore, Md., U.S.

Matriculation Examiner.-A. N. SHEWAN, M.A., Lansdowne School, Montreal.

# SESSION 1899-1900.

The tenth Session of the Faculty (being the thirty-fourth of the Montreal Veterinary College) will be opened on Wednesday, 20th September, 1899. The regular course of lectures will begin on the following day, at the hours named in the time table, and will continue till the end of March. The hours of lectures will be announced later, together with the 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 an 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 examinations on all the subjects embraced in the curriculum, botany excepted.

Occasional and agricultural students will be received without matriculation for attendance on any 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 Faculty.

#### MATRICULATION.

Every student, previous to his admission, must produce a certificate of educational requirements satisfactory to the Faculty, or submit himself to a matriculation examination in (1) writing, (2) reading aloud, (3) dictation, (4) English grammar and (5) composition, (6) outlines of geography, with special reference to North America, (7) arithmetic, including vulgar and decimal fractions.

NOTE.-It is contemplated to add the rudiments of Latin to the matriculation in the near future.

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A. N. Shewan, M.A., will hold the matriculation examination on Saturday, 16th September, 9 a.m., at the College, 6 Union Avenue, when all those intending to enter the course should 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 Faculty in a recognized University or Agricultural College are not required to matriculate.

No College is recognized unless its students are required to matriculate.

### REGISTRATION AND PAYMENT OF FEES.

The following are the College regulations:-

All students desirous of attending the classes shall, at the commencement of each session, enrol their names and residences in the register of the Faculty, and procure from the Registrar a ticket of registration, for which each student shall pay a fee of \$5.

The said register shall be closed on the last day of 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 advance at the time of registration; the Registrar will on no consideration issue tickets till the fees are paid. Intending students must govern themseves 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 receiving the diploma. Students who are allowed time for previous study will be required to pay full fees, and \$5 for registration each fission. Payments must be made 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.<sup>+</sup>

<sup>\*</sup>Owing to losses incurred by non-payment of fees, the Registrar must refuse registration till the fees are paid, which may be returned if the applicant fails to matriculate.

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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 ground fees. 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 applicant, 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 iailing 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 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.

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 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 Class-rc and, if r When the Fact from cost to the C Any S to repai

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# 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 rules, 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 Students 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.

All cases of discipline involving the interest of more than one Faculty, or of the University generally, shall be reported to the Principal, or, in his absence, to the Vice-principal.

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 30th March following.

Each lecture shall be of one hour's duration, but the Professors shall have the right to substitute an examination for any such lecture.

At the end of each term there shall be a general examination of 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 Medical 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 respiration; apparatus specially suitable 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.

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#### CHEMISTRY.

The course in chemistry embraces Chemical Physics, in the first portion of the course, the theory of Chemistry, both inorganic and organic, in the latter part of the course. The Chemical Laboratory, which is available to the Students of Comparative Medicine, 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, sulphuretted hydrogen apparatus, gas and combustion furnaces, etc., giving to the student unsurpassed advantages for acquiring a sound 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 the late Mr. J. H. R. Molson, the large house previously 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 apparatus for the purpose of Pathological Histoloy 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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\* Students m the Session the Students desiri Faculty.

# HISTOLOGICAL LABORATORY.

The Histological Laboratory is a large, well-lighted room on the 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, all from the well-known makers, Zeiss, Hartnock and Leitz. 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 subject 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 shown 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. Reagents and everything, except cover glasses and cabinet cases, provided. Fee, \$8.

# COURSES OF LECTURES.

### BOTANY.\*

### D. P. PENHALLOW, 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 Pteridophytes 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 microscopes, while the Botanic Garden and Herbarium afford an ample supply of fresh and dried material.

### ZOOLOGY.\*

#### PROF. MACBRIDE, M.A., B.Sc., LECTURER.

This course includes a systematic study of the classification of animals, illustrated by Canadian examples, and by the collections in

\* Students may either take Botany or Zoology, but must intimate at the beginning of the Session, their choice, and adhere to this, except by special permission of the **Faculty**. Students desiring to attend both subjects in one session may do so by permission of the Faculty.

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the Peter Redpath Museum. It affords suitable preparation for collecting in any department of Canadian Zoology, or Palaeontology, and as an introduction to Comparative Physiology.

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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.

It is optional with students to select either the course on Botany or on Zoology.

#### 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 attention.

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. This demons chiefly various utely d lectures

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# HISTOLOGY.

### GEO. WILKINS, M.D.

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. Plates 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 Medical College includes courses in general and special Pathology, in Bacteriology (held during the summer Session), and instruction 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.

\* Undergraduates in the second and third sessions are particularly recommended to take the practical course in Bacteriology during the summer session, if possible.

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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 Aanatomy 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 subjects. There is a very large collection of anatomical models by Dr. Auzoux, of Paris, natural injections and dissections, and a most complete collection of diagrams including Marshall's complete set, Mons. Achille Compte's Anatomical and Zoological series; also a large collection 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 procure tickets certified by the demonstrator that he has dissected two entire subjects,—that is, one each session.

# MATERIA MEDICA AND THERAPEUTICS. 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 principal 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. Pro will ir (1.) the lea and ot (2.) ment (3.) and th (4.) (5.) In al the sub

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#### SPECIAL COURSE ON DOGS.

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Professor Wesley Mills will give a special course on Dogs, which will include:---

(1.) 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 subject 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 Faculty 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 excellent 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

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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; Williams' Surgery; 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 Veterinary Conspectus; Tuson's Pharmacy; Hoare's Therapeutics.

Cattle Diseases.—Steel's Bovine Pathology; Clatter's Cattle Doctor (Armitage); Fleming's Veterinary Obstetrics.

Canine Diseases.-Prof. Mills' The Dog in Health and in Disease.

Diseases of the Dog.-Geo. Müller, tr. by A. Glass, V.S.

Entozoa.-Cobbold's Entozoa of Domestic Animals.

Pathology.—Payne's Pathology; Fraenkel's Bacteriology; Clement on Post Mortems.

#### BOARD AND TRAVELLING EXPENSES.

Board can be obtained at from \$15 to \$20 per month.

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 also be granted for the Christmas vacation.

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<sup>\*</sup> Students are advised not to buy text books extensively till after consultation with the Professor who teaches the subject.

#### VETERINARY MEDICAL ASSOCIATION.

This Association is for the mutual improvement of its members 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 are very great. Not only do they hear carefully prepared papers on subjects of professional importance, but an opportunity is afforded for practicing 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 600 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 Fellowship is conferred on all members who have complied with the regulations of the Association.

#### ASSOCIATION FOR THE STUDY OF COMPARATIVE PSYCHOLOGY.

This Society is similar in construction to the Veterinary 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.

The late John Wesley Gadsden, M.R.C.V.S., of Philadelphia, Penn, U.S.A., generously donated to this Faculty his valuable library of nearly 400 volumes and the specimens of his private museum, many of which are of unusual value.

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#### QUALIFICATIONS FOR THE DEGREE.

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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, 1st year. Histology,

Chemistry,

Physiology, Anatomy,

General Pathology and Demonstrations, one course of six months.

Cattle Diseases and Obstetrics, Practice of Medicine and Surgery,

Materia Medica and Therapeutics,

Two courses, 2nd and 3rd years.

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 pursue the subjects of Anatomy, Physiology, Chemistry, Histology and Botany or Zoology in their first session.

Candidates of the 1st and 2nd years, who fail to pass in not more than two subjects, may be granted a supplementary examination at the beginning of the following session. Supplementary 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:—

#### DECLARATION OF GRADUATES IN COMPARATIVE MEDICINE AND VETERINARY 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.

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#### REGUL. DEGR

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#### EXAMINATIONS.

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First Year.—Pass Examinations in Botany or Zoology, Histology (oral), 1st Chemistry, Anatomy, Physiology, and on all 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, Veterinary 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 compulsory. 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 MONT-REAL VETERINARY COLLEGE.

The Degree of Doctor of Veterinary Science 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, 1890, 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 study at some European school.

4th.—That he shall be required to satisfy the Board that he has made reasonable progress in professional knowledge and skill.

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.

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vith my niversity. dignity. 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 valuable preparatory 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 your studies, as the three sessions which the curriculum covers will be found none too long to accomplish the necessary proficiency in the various branches of study required of you. The McGill Y. M. C. A. is 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 with in 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 acknowledged. 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 add the tissue corrosive silk, is re will be se will be p affixed.

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> te classes, or obscure ractice to he species be aced, those es in the vhen for-1 alcohol, parts of acid has

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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 other 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.

### McGill Mormal School.

The McGill Normal School, in the city of Montreal, is established chiefly for the purpose of training teachers for the Protestant population, and 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 1899-1900:

#### NORMAL SCHOOL COMMITTEE.

Prof. W.	Peterson,	М.А.,	LL.D.,	Principal	of th	ne University,
Chairm	an.					
	EL FINLEY, (				ge.	
REV. PRIN	CIPAL MACV	icar, D	D.D., LL	.D., )	Б	ellows of
	GALL, M.A.,			Ç	-	
REV. E. I.	REXFORD, B	.A.,		) -	acGin	University.
J. V	V. BRAKENR	IDGE, H	B.C.L., S	ecretary.		

SAMPSON P. fessor of Abner W. Language MADAME SO MISS GREEN, MR. R. J. F. MISS LILIAN in Classic

MR. W. H. MR. JNO. P. PROF. D. P. J T. D. REED, NEVIL N. EV. MR. JAMES W MISS LOUISE MR. A. W. A: sition Won

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#### ANNOUN

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#### 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 Professor of Englisk Language and Literature.

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-Fa.

MR. JNO. P. STEPHEN, Instructor in Elocution.

PROF. D. P. PENHALLOW, M.A.Sc., Lecturer on Botany.

T. D. REED, M.D., C.M., Lecturer on Physiology and Hygiene.

NEVIL N. EVANS, M.A.Sc., Lecturer on Chemistry.

MR. JAMES WALKER, Instructor in Penmanship and Book-keeping. MISS LOUISE DERICK, Instructor in Kindergarten Methods. MR. A. W. ARTHY, Lecturer in the Theory of Kindergarten and Transition Work.

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### MODEL SCHOOLS OF THE McGILL NORMAL SCHOOL.

ORRIN REXFORD, B.A.Sc., Head Master of Boys' School. MISS MARY I. PEEBLES, Head Mistress of Girls' School. MISS SELINA F. SLOAN, Head Mistress of Primary School.

#### ANNOUNCEMENT FOR THE SESSION 1899-1900.

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 Examiners for the Province of Quebec will grant diplomas only to teachers-in-training of this Institution and to graduates of British or Canadian Uni-

The forty-fourth Session of this School will commence on

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the first of September, 1899, and close on the thirty-first of May, 1900. The students are graded as follows:

- I.-ElementaryClass-Studying for the Elementary Diploma.
- 2.-Advanced Elementary Class.-Studying for the Advanced Elementary Diploma.
- 3.-Model School Class.-Studying for the Model School Diploma.
- 4.-Kindergarten Class.-Studying for the Kindergarten Diploma.
- 5.-Class in Pedagogy.-Preparing for the Academy Diploma.

Detailed information respecting the courses of the four grades first enumerated above may be obtained on application to the Principal of the School, 32 Belmont Street, Montreal.

#### ACADEMY DIPLOMAS TO GRADUATES.

All holders of model school diplomas that have been granted by the McGill Normal School or that shall hereafter be granted by the Central Board of Examiners, shall be entitled to receive academy diplomas on graduating in Arts at some Canadian or other British University, provided that they pass in Mathematics, Latin, Greek and French at the degree examinations, or, failing this, in any subject or subjects, pass examinations in such subject or subjects as are certified by the universities to have given to the graduate concerned a standing not lower than that of second class at the close of the second year in Arts.

All graduates in Arts of Canadian or other British Universities who have passed in Mathematics, Latin, Greek and French as above defined, and have taken a course and have passed satisfactory examinations in education and in practical teaching under the control of the universities or of the McGill Normal School as approved by the Protestant Committee of the Council of Public Instruction, shall be entitled to receive academy diplomas. The Central Board of Examiners shall determine who have passed satisfactory examinations in education and while in atten in practical teaching in view of the results, which, including with all necess examination questions and answers, shall be remitted to the acter, as well a Board by the university examiners, and in view of the recome of Examiners

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Each perso School shall 1 said school ar Diploma.

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been granted r be granted ed to receive Canadian or s in Mathexaminations, xaminations universities ng not lower year in Arts. h Universiand French passed satis. cal teaching Gill Normal of the Counive academy

mendations of the professors of education. The Central Board of Examiners is empowered to set one-half of the questions in education, and to prescribe tests of ability to teach and to govern, which must be followed in such 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, and until the Universities themselves undertake the work, provision has been made for the delivery of a course of lectures on pedagogy in the Normal School and for practice in teaching in the Mc-Gill Model School for fifty 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. The hours assigned for these lectures are from 3 p.m. to 4 p.m. on each Tuesday and Friday on which lectures are given in the Faculty of Arts. 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 10 a.m. to 12 noon.

Undergraduates will be permitted to teach the fifty 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. Those who teach in the Model Schools are expected to prepare all lessons and discharge all duties assigned them with faithfulness. Failure to teach or to govern in the Model Schools, no less than failure to pass the examination on the course of lectures, endangers the Academy Diploma.

Each person taking this course of study in the Normal ive academy Il determine ucation and h, including itted to the f the recomof Examiners the fee of \$4.00 before receiving an Academy Diploma.

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## Aniversity School Graminations,

1900.

#### FOR CERTIFICATES OF THE UNIVERSITIES AND THE TITLE OF ASSOCIATE IN ARTS.

HELD UNDER THE SUPERINTENDENCE OF MCGILL UNIVERSITY, MONT-REAL, AND THE UNIVERSITY OF BISHOP'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 Canadian 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).

\* Candidates will be exempted 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.

Latin: Cæs Lati Virg Pros tex

Greek:-Xenc Greel Prose text

French:-Frenc Easy fron The r tive

German: Gramn Synt: Engl amou transl accep Joynes'

Arithmetic:-As requ ordina greate: root,

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#### II. OPTIONAL SUBJECTS.

#### Section 1.-Languages.

#### Latin:-Cæsar-Bell, Gall-, Bks. I. and II. Latin Grammar. Virgil-Aeneid, Bk. I. Prose Composition, based on the prescribed prose \$ 200 marks. text, and Easy Translation at Sight. Greek:-Xenophon.-Anabasis, Bk. I. Greek Grammar. d0. 200 Prose Composition, based on the prescribed prose text, and Easy Translation at Sight. French :--French Grammar. Easy translation from English into French, and from French into English. do. 100 The reproduction in French of an easy narraany Canadian tive read in English. German: Accidence Grammar.-Vandersmissen's and Syntax, especially the Accidence, including English German Exercises. An equivalent amount of Grammar and English-German 100 do. translation from any good manual will be accepted instead of Vandersmissen. Joynes' German Reader. Section 2.-Mathematics of the Exam-Arithmetic :-As required for Model School Diploma. All e Root and a ordinary commercial rules. fractions of greater complexity, circulating decimals, cube the four conroot, 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

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G	<i>Ceometry:</i> — Euclid, I., II., 1II., with easy deductions	<b>10</b> 0	do.	Chemi
4	Algebra : —			Physic
	Elementary Rules, Involution, Evolution, Frac- tions, Indices, Surds, Simple and Quadratic Equations of one or more unknown quan- ties.	100	do.	Physic. Geomet
P	Plane Trigonometry:			Geometr
	(As in Hamblin Smith, pp. 1-100, omitting Ch. XI.)	100	do.	R3, or M Freehan
	Section 3.—English.			the Domi
Т	The English Language:—			The fo Drawing.
	West's Elements of English Grammar (Cam- bridge University Press.) Trench's Study of Words.	100	do.	(a) (b) (c) 1
E	<ul> <li>Stopford Brooke's Primer of English Literature (New Edition.)</li> <li>Shakspere's Richard II.</li> <li>Selections from Tennyson, Part I., (Rowe and Webb, Macmillan.)</li> </ul>	100	do.	I. To obt pass in all th
Н	<i>listory.</i> —(As in Primers of Greece and Rome, or Collier's Great Events)	100	də.	ai subjects, each of the 2. In addi
	Section 4 Natural and Physical Sciences, e	etc.		Candidates m number of m
P	Physical Geography.—Hinman's Eclectic Physical Geography is recommended	100	do.	not exceed 10 3. Candidat unless they ha
В	<ul> <li>Botany* (as in Groom's Elementary Botany, with Penhallow's Guide to the Collection of Plants, and Blanks for Plant Descriptions;)</li> <li>A collection of not more than 50 specimens pro- perly mounted and named will be required of each pupil.</li> </ul>	100	də.	marks obtain 300 marks on 4. The total Optional subje order of merit who are over
and	* The Head Teacher of each school will forward each pupil's compl also (on a furnished form) a detailed statement as to the collect	ete coll	ection,	* When two of necessary to pass in Grammar, unless th Questions connected

+These blanks may be obtained from booksellers in Montreal or elsewhere.

\* When two or necessary to pass in Grammar, unless th questions connected Grammar must be o

Chemistry (as in Remsen's Elements of Chemistry, pp. I to 160)	100	do.
Physiology and Hygiene (as in Cutter's Inter- mediate)		
Physics (as in Gage Introduction to Physical Science. Chapters I., II., III., IV. and V.)	100	do.
Geometrical and Freehand Drawing	100	do.

Geometrical.—Vere Foster RI and R2, also problems 119 to 120 of R3, or McLeod's Geometrical Drawing.

Freehand.—Rules of Perspective. Drawing from the object (as in the Dominion Freehand Drawing books, numbers 1 to 5, inclusive.)

The following subjects may be taken instead of Geometrical Drawing.

(a) Freehand object drawing with shades and shadows.

(b) Drawing from the cast.

(c) Elementary water color drawing.

#### 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 1000.

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.\* A candidate must obtain at least 300 marks on the whole examination.

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

\* When two or more books or subjects are prescribed for one examination it is necessary to pass in each. Candidates will not be allowed to pass in the Preliminary Grammar, un ess they show a satisfactory knowledge of Syntax (Parsing, Analysis, and questions connected therewith). In Classics, at least one-third of the marks allottel to Grammar must be obtained.

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plete collection, ction. sewhere. 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.

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 the character and ages of the pupils sent up for examination.

10. The examination will begin on Monday, June 11th, at 9 a.m.

11. 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 30th. (Blank forms and copies of the regulations will be furnished on application.)

NOTE I.—No fees will be exacted for the examination of pupils of Academies under the control of the Protestant Committee; but in order to obtain the certificate from the Universities, the prescribed fee, viz., \$4, must be paid to the Secretary of the University.

Candidates who pass Grade II. of the Academy Course 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 cbtained on application to the English Secretary, Department of Public Instruction, Quebec.

NOTE'2.-MATRICULATION SUBJECTS REFERRED TO IN REG. 6.

In Arts.-(1) Latin or Greek; (2) Geometry; (3) Algebra; (4) Arithmetic; (5) English Grammar; (6) English Dictation; (7) Latin:— Virgil Cicero Gram posi

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British History; (8) English Literature; (9) Greek or Latin (if not already taken), or two Modern Languages; (10) Botany or Chemistry or Physical Geography or Physics, or olternatively a Language not previously taken.

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.)

#### 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.
Grammar, Prose Composition (Collar's Practical Latin Composition, Parts III. and IV.), Translation at Sight.

Greek:-

Xenophon.—Anabasis, I. and II. Homer.—Illiad, IV., and Odyssey, VII. Translation at Sight. Grammar and Prose Composition (Abbott's Arnold's Greek Prose Composition, Exercises I to 25).

#### French :---

Le Livre de mon Ami, by A. France. Molière, Le Bourgeois Gentilhomme. Translation at Sight from French into English, and from English into French. Grammar and Dictation. Lessing, Emilia Galotti.

Schiller, Der Kampf mit dem Drachen. Grammar and translation from English into German.

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#### 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.

Cook's First Book of Old English (Ginn, Boston), Extr. XIII. inclusive, with grammatical questions arising therefrom. Chaucer's Prologue to the Canterbury tales, (Skeat, Clarendon

Press.) A Composition.

English Literature:---

The Elizabethan Period (Morley's First Sketch, Herford's Age of Woodsworth (Bell), Pope's Essay on Criticism (Churton, Collins, Macmillan), Milton's Paradise Lost, Bk. I.

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 of Structural Botany.

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.

The addition I. Ca ing one Advance subject jects ma 2. Can the adva be given 3. The same tim They wil subjects, prelimina the advan 4. Cand present th jects in w 5. The liminary s application to pass the fee of \$5

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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.

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 advanced 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 must, before April 30th, give notice of intention to present themselves for the examination, specifying the optional subjects in which they wish to be examined.

5. 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 Examination.\* 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.

\* Candidates from Acad mies under the control of the Protestant Committee of the Council of Public Instruction are exempt from the former fee, but not from the latter.

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### LIST

### SUCCESSFUL CANDIDATES

OF

#### RESULTS OF EXAMINATIONS, 1899.

#### ASSOCIATES IN ARTS.

	I. Under 18 Years of Age.	
No.		Marks.
32	Elizabeth Helen Lundie (High School for Girls, Montreal),	864
17	Arthur Reginald Roberts (The High School, Montreal),	828
27	Jean Purdie Dease (High School for Girls, Montreal),	803
142	Maria Claribel Taylor (Sherbrocke Academy),	792
14	Orick Burroughs McCallum (The High School, Montreal),	789
147	Walter Joseph Healy (St Francis College Grammar School),	783
13	Gerhard Richard I omer (The High School, Montreal),	779
2	Frederick Baylis Brown (The High School, Montreal),	760
5	Gui laume Casimir Couture (The High School, Montreal),	758
132	Abraham Pinto Joseph (High School, Quebec),	739
15	Frederick Alexander McKay (The High School, Montreal), } equa	1 722
25	Gertrude Barbara Cayford (High School for Girls, Montreal),	. /
37	Catherine Isabe la MacKenzie (High School for Girls, Montreal), 718	
29	Margaret Fiances Hadrill (High School for Girls, Montreal),	714
104	Ruth Hunter (Lachute Academy),	711
129	William Snaith (High School, Quebec),	69 I
18	William Whitford Robinson (The High School, Montreal),	685
6	William Flockart Drysdale (The High School, Montreal),	<b>68</b> 0
9	Ernest George Gnaedinger (The High School, Montreal),	671
28	Gladys Marjorie Fenwick (High School for Girls, Montreal), } kay Forester Waterhouse (Sherbrooke Academy).	664
143	Kay I ofester Waterhouse (Sherbrooke Headen),	
92	Robert H. McCracken (Huntingdon Academy), Herbert Jennirgs Rose (Private Tuition),	663
201 98	William K. Philps (Huntingdon Academy),	649
90 161	Alice Sarah Newton (Waterloo Academy),	639
141	Herbert Authur Sampson (Sherbrooke Academy),	638
38	Dakers Cameron (Abingdon School, Montreal),	636
30 I	William Ernest Baker (The High School, Montreal),	641
1	William Entest Daker (The High School, Monteal),	· · ·

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	156	Aline Lydre Charbonnel (Waterloo Academy),	633
	157	Ethel May Cook (Waterloo Academy),	630
	199	Frances H. Garland (Mansonville Model School),	629
	35	Helen Louise McDonnough (High School for Girls, Montreal),	628
	42	Eric MacKay (Abingdon School, Montreal),	626
	<b>1</b> 64	Laura Allen Payan (Waterloo Academy),	620
	34	Georgiana McBain (High School for Girls, Montreal),	613
	17	Edward Warwick Pownall (7 he High School, Montreal),	602
	140	Genevra May Pennoyer (Sherbrooke Academy),	597
	33	Matilda Mason (High School for Girls, Montreal),	596
	3	Jacob Simon Budyk (The High School, Montreal),	<b>58</b> 5
	69	Rachel M. M. Stevens (Compton Ladies' College),	584
	26 163	equal	583
	167	Robert Harvie (Westmount Academy),	580
	68	Annie Knight Harding (Compton Ladies' College),	577
	24	Mamie Bray (High School for Girls, Montreal),	573
5.	23	Julia Ainslie (High School for Girls, Montreal),	566
4	152	Bessie Harriet Cook (Sutton Academy),	561
28	1.05	Margaret Elizabeth Jackson (Lachute Academy),	559
03	97	Lily L. Pringle (Huntingdon Academy),	557
92	21	William Horseman Thorpe (The High School, Montreal),	555
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79	108		539
60	130	Anan Meobilatu Strang (High School, Quebec,	
58	180		534
39	49	Harriet Evelyn Armstrong (Miss Symmers' and Miss Smith'	
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- 18	137	Gertrude Advina Hallett (Sherbrooke Academy), Archie MoFachen Philling (Coult Institute, Valleyfold)	503
718	153	Archie McEachen Phillips (Gault Institute, Valleyfield), Hannah Mabel Ewing (St Francis College Grammar School),	495
714 711	145 89	Gracia A E Chambers (Huntingdon Academy) )	485
691	165		483
685	71	Edward Bailey (Cookshire Academy),	481
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638	172		451
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91	Mary A. Hampson (Huntingdon Academy),	447
III	Louis Douglas Meyers (Ormstown Academy),	443
134	Harold Trotter (St. Johns High School),	442
125	George Gordon Gale (High School, Quebec),	440
187	Blanche Sutherland (Paspebiac Model School),	435
160	Fenwick Arthur Newall (Waterloo Academy),	433
7	William Maxwell Duckett (The High School, Montreal),	430
85	Helena Chalmers (Granby Academy),	407
154	James Scott Thompson Wishart (Gault Institute, Valleyfield),	403
8	Alan Colquhoun Blackburn Dunlop (The High School, Montreal),	386
83	Lucy May Stockwell (Danville Academy),	382
30	Ethel Wilhelmina Hostler (High School for Girls, Montreal),	377
103	Bertha Woods (Knowlton Academy),	367
171	Ethel M. Ross (Westmount Academy),	362
70	Evelyn Bailey (Cookshire Academy),	356
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197	Charles Edward Bowker (Mansonvill: Model School),	739
158	Charlotte Leslie Crowther (Waterloo Academy),	726
95	William D. McNaughton (Huntingdon Academy),	722
186	Alvin Burton (Dufferin Grammar School, Brigham, P.Q.),	710
200	William A. Saunders (Mansonville Model School),	702
174	John McLeish (Private Tuition),	677
31	Lily Ernestine Idler (High School for Girls, Montreal),	671
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	Montreal),	655
11		650
96		627
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93		592
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_	Montreal),	570
76		568
175		547
	Harris Cohen (The High School, Montreal),	
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106		536
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179		522
139		513
139		480
196		473
190		464 460
10	/ Liene er bundin (Lennoxvine Academy),	400

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No.					Marks.
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19	Warren Simister (Th				451
36	Euphemia Laurence			rls, Montreal),	445
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75	Harold Taylor (Cool				421
149					418
150	Jessie Mary Varney				381
50	Ruby Butler (Miss S	ymmers' and	Miss Smith's S	chool, Montrea	al), 317
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47	52	54	55	59	60
61	112	113	114	115	116
117	119	120	122	124	126
148	173	189	192	193	210
212	215 224	216 225	217 226	218	222 230
223	233	234	235	236	237
239	240	241	242	243	214
245	248	249	250	251	252
255	256	257	261	262	263
264	268	269	273	276	278
282	283	285	286	287	288
289	290	291	292	293	294
295	<b>2</b> 96	297	298	299	300
301 310	302 311	303 312	305 313	307 314	308
316	317	318	319	320	321
322	324	326	328	335	336
338	341		-		00
		2			

eal),

Marks. 

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The following candidates have passed the Examinations required for Entrance.

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#### A.-In Arts.

1. FOR COURSE L	EADING TO B.A.
Ainslie, Julia, Montreal	Johnson, Walter S., Montreal
Belyea, Edith, St. John, N.B	Lomer, Gerhard R., Montreal
Blanchet, Sydney H., Ottawa, O	Lundie, Elizabeth H., Montreal
Bray, Mamie, Montreal	McCallum, Orick B., Montreal
Burpee, Ethel L., Vancouver, P.C.	McCracken, Robert H., Huntingdon, Q
Campbell, Jessie L., Vancouver, B.C.	McConaghy James A., Vancouver, B.C.
Cayford, Gertrude B., Montreal	McFarlane, Peter A., Huntingdon, Q
Chipman, Wm. W., Ottawa, O	McKay, Eric, Montreal
Couture, Guillaume C,, Montreal	McLeish, John, Montreal
Davidson, MacFarlane B., Ottawa, O	McNaughton, Wm. D., Huntingdon, Q
Dease, Jean Purdie, Montreal	Mowatt, Edward E., Huntingdon, Q
Domville, Elizabeth, St. John, N.B.	Munroe, George A., Dunvegan, O
Doran, Leo Patrick, Kingston, O	Munroe, H. Edwin, Dunvegan, O
Dudley, Robert L., Pembroke, O	Newton, Alice S., Waterloo, Q
Dutaud, Gustave, Montreal	Paul, Margaret A., Vancouver, B.C.
East, Edith, Montreal	Phillips Alex. May, Vancouver, B,C.
Eby, Florence M., Vancouver, B.C.	Philips, Wm. K., Huntingdone Q
Fenwick, Gladys M., Montreal	Pownall, Edward W., Montreal
Fripp, George D., Ottawa, O	Redpath, Wm., Montreal
Gardner, Helen I. L., Montreal	Robinson, Wm. W., Montr, al
Hadrill, Margaret F., Montreal	Rose, Heibert J., Ottawa O
Hannington, John W. B., Victoria, B.C.	Summers, Albert V., Pembroke, O
Harris, Alan Dale, Ottawa, O	White, Samuel C., Ottawa, O
Harvie, Robert, Westmount, Q	
2. FOR COURSE LE	ADING TO B.SC.
Abercrombie, Edna B., Danville, Q	Jackson, Margaret E., Lachute, Q

Laing, Campbell

Lincoln, Wm. A.,

McBain, Georgiana,

McDonough, Helen L., McKenzie, Catherine I., McLeod, Euphemia L., McLeod, Euphemia L.,

McLeod, Katie E., Mallory, Ethel A. V.,

Newall, Fenwick A.,

Newton, Amos S., Nourse, Idonea R. B.

Parmelee, David H,

Pennoyer, Genevra M.,

Payan, Laura A,

Pringle, Lily L.,

Shaw, Lydia J.,

Simister, Warren, Smith, Chas. M.,

Taylor, Maria C.,

Webster, Amy,

Stevens, Rachel M. M., Stockwell, Lucy M.,

Saunders, Wm. A.,

Mallory, Eva G., Mason, James H.,

Mason, Matilda,

Abercrombie, Ethel A., Allan, Eva L., Armstrong, Harriet E, Ball, Alice, Bonneville, Constance C. Bowker Chs. E., Bridgette, Samuel J., Brodie, Muriel, Burton, Alvin, Chalmers, Helena, Charbonnell, Aline L., Crowther, Charlotte L., Cook, Ethel M., Duckett, Wm. M., Dundin, Lizzie C., Dunlop, Alan C. B., Edwards, Bertha M., Ewing, Hannah M., Fortier, Grace, Garland, Florence H. Hallett, Gertrude A., Hamilton, M. Hilda Harding, Annie K., Hersey Florence, Hunter, Ruth, Idler, Lily E.,

Danville, Q Granby, Q Montreal Knowlton, Q Danville, Q Mansonville, Q Stanstead, Q Westmount, Q Brigham, Q Granby, Q Waterloo, Q Waterloo, Q Waterloo, Q Montreal Lennoxville, Q Montreal Sherbrooke, Q Richmond, Q Inverness, Q Mansonville, Q Sherbrcoke, Q Compton, Q Compton, Q Montreal Lachu'e, Q Montreal

English John M., Gale, W. P., Goldie, Thomas L., B.-In Medicine.

Vancouver, B C. McDonell, John J., Williamstown, O Nelson, James S., Slack, Malcolm R., Quebec Ottawa, 0 Toronto, O Brigham, Q

Baker, W Barclay, 1 Brown, F Cohen, H Denne, R Drysdale, Foreman, Gault, A. Gnaedinge Graham, I James, Bei Jones, Har

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The numb in parenthese three-fourths at least forty High School Abingdon Sch Montreal, 58 Berthier, 66; Academy, 76 Academy, 99 a ville Academ Boys' High S Academy, 135 tute, Valleyfiel Williamstown 174 and 201; D School ; Anna School, 197 to: and 209 : Senio Bartley's Schoo Latin.-186, (5, 28), 95, 111, (93, 105, 163), 92 (24, 53, 76, 149), Greek .- 32, 2 96, 3, 130, 175, 9 French. -5, 1 84, (14, 29, 158),

Montreal

Montreal

Montreal

Montreal

Montreal

Stanstead, Q

Westmount, Q

Lennoxville, Q

Lennoxville, Q

Lachute,

Waterloo, Q

Waterloo,Q

Sherbrooke, Q

Waterloo,

Sherbrooke, Q

Huntingdon, Q

Mansonville, Q

Lennoxville, Q

Compton, Q

Danville, Q

Sherbrooke, Q

Westmount, Q

Richmond, Q

Montreal

Waterloo, Q

Montreal

25, 31, 165), 73, ( (6, 9, 24, 157), (1 98, 111, 171), (34 German.-153, Optional Arit.

73, (71, 81, 87, 94 Geometry .- 17,

129, 134, 147, 167, 187), 11, (81, 89, 9 201, (3, 24, 25, 102,

#### Entrance.

Montreal Montreal Montreal Montreal intingdon, Q icouver, B.C. untingdon, Q Montreal Montreal intingdon, Q intingdon, Q Junvegan, O Dunvegan, O Waterloo, Q couver, B.C. couver, B,C. ntingdone Q Montreal Montreal Montr, al Ottawa 0 Pembroke, 0 Ottawa, 0

> Lachute, Q Montreal stanstead, Q Montreal Montreal Montreal Montreal estmount, Q moxville, Q inoxville, Q Lachute, Q Montreal Waterloo, Q Waterloo.Q erbrooke, Q Vaterloo, Q Vaterloo, Q erbrooke, Q tingdon, Q sonville, Q chmond, Q Montreal noxville, Q lompton, Q Danville, Q erbrooke, Q stmount, Q

> > mstown, O Ottawa, O Brigham, Q

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#### C.-In Applied Science.

Baker, Wm. E.,	Montreal
Barclay, Malcolm M.,	Montreal
Brown, Frederick E.,	Montreal
Cohen, Harris,	Montreal
Denne, Reginald D. L.,	Berthier, Q
Drysdale, Wm. F.,	Montreal
Foreman, Alvah E., Va	ncouver, B.C.
Gault, A. Hamilton,	Montreal
Gnaedinger, Ernest G.,	Montreal
Graham, Richard W.,	Stanstead. Q
James, Bertram, St.	John's, Nfld.
Jones, Harold W.,	Ottawa, O

Langley, Albert G., McKay, Frederick A., Victoria, B.C. Montreal Musgrave, Wm. N., Victoria, B.C. Roberts, Arthur R., Montreal Robertson, Alex. R., Victoria, B.C. Scouler, Guy T., N. Westminster, B.C. Sewell, John E. T., St. Catharines, O Sims, Harold H., Lennoxville, Q Thorpe, Wm. H., Montreal Trimingham, Chas. L., Montreal Webster, George B., Ottawa, O

#### 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 : Montreal High School (Boys'), 1 to 22, 210 to 281; Montreal High School (Girls'), 23 to 37, 282 to 328; Abingdon School, 38 to 48; Miss Symmers' and Miss Smith's, 49 to 57; St. Ann's School, Montreal, 58 to 61; Aylmer Academy, 62 to 64; Bedford Academy, 65; St. Albans School, Berthier, 66; Compton Ladies' College, 67 to 69; Cookshire Academy, 70 to 75; Danville Academy, 76 to 83; Granby Academy, 84 to 86; Huntingdon Academy, 87 to 98; Inverness Academy, 99 and 100; Knowlton Academy, 101 to 103; Lachute Academy, 104 to 106; Lennoxville Academy, 107 to 110; Ormstown Academy, 111; Girls' High School, Quebec, 112 to 123; Boys' High School, Quebec, 124 to 132; St. John's High School, 133 and 134; Sherbrooke Academy, 135 to 144; St. Francis College School, 145 to 151; Sutton Academy, 152; Gault Institute, Valleyfield, 153 and 154; Waterloo Academy, 155 to 164; Westmount Academy, 165 to 174; Williamstown High School, 173 : Stanstead Wesleyan College, 175 to 185 ; Private Tuition, 174 and 201; Dufferin Grammar School, 186; Paspebiac Model School, 187; St. Andrew's School ; Annapolis Royal N. S., 188 to 195 ; Magog Model School, 196 ; Mansonville Model School, 197 to 200; Sawyerville Model School, 202 to 203; Portage du Foit Model School, 204 and 209 : Senior School, Montreal, 329 to 344 ; Trafalgar Institute, 345 to 347 ; The Misses Bartley's School, 348 to 349a.

*Greek.* --32, 27,\* 14, 25, 147, 13, 29, 16, 23, 132, 5, (18, 95), 174, 98, 92, 42, 11,\*\* (129, 201), 161, 96, 3, 130, 175, 93, 26.

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100, 106, 184), (103, 160),\* (33, 91, 136), (75, 109, 111, 162), (101, 104, 138, 140, 141, 144, 153, 171, 177, 181, 183, 189, 197), 68, (90, 164, 178), 132, (83, 85, 139, 155), (63, 145, 154, 200), (105, 152, 185), (12, 175), (30, 76, 176), 173, (74, 135, 193, 198, 204), 107, (59, 151), 202, 192, \*\* (61, 170, 188).

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Chemistry.—1, (32, 34), (17, 27), 167, (25, 168), (35, 147), (8, 24, 26), 7, (172, 186), \* (2, 12, 33, 201), 37, (23, 29), (4, 165, 166), 6, (15, 145, 150), (9, 28, 31), 170, 42, 100, 21, (38, 64, 99), \*\* 188, (30, 193), (36, 149, 151).

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*Physics.*—(197, 200), 175, (17, 180), (14, 179, 184, 186), \* 201, 13, 185, 173, 15, 6, \*\* 18, 154, (1, 153), 99, (16, 21, 22).

Drawing. -36, (17, 32), 15, 6, (13, 19), \* 27, (2, 37), (14, 21, 34), 104, 18, 9, 4, (1, 31), (29, 33), 105, (24, 168), \*\* (5, 25) 106, 35, 203, 156, (26, 134), 22, 28.

Lynch, W Drolet, E Saunders, Décarie, a Grâce, Ives, W. ( McIver, W

Alley, G. 7 Aylmer, A Bowles, C. Brown, W. Browning, Burnett, W Burnett, W Burris, J. S. Cameron, I. Casselman, Craig, J. E. Cumming, Darche, C. Drier, N. E. Dyer, E. O. Fawcett, R. Fitzgerald, Francis, B., Fuller, G. F Galbraith, W Gillis, E. G., Gordon, A. I Gray, C. F. A Greene, E , Higgins, C. P Jackson, F. S. Jones, F. B., Jones, D. C., Law, R., Levy, A., B.A Lineham, D. M Loeb, A. A., Logie, A. E., Love, R. H.,

1, 144, 153, 171, 200), (105, 152, \*\* (61, 170, 188). 9, (27, 199,) (12, 187, (163, 196). , 145, 161, 171), 1, 100, 106, 158), 200), (3, 18, 51, 50, 103, 136, 149, , 172, 193, 195). ), (125, 147),\* 2,

#### 153, (34, 49, 51),

5, 92, 104), (29, 42, 76, 163), (19, 200), 35, 79, 93, 170),\*\* 156, (7, 107, 103, 198), ).

172), (6, 130), 1, 166), (15, 22, 85, 187), (151,

111, 202), (60, 88, 109, \* (11, , 144, 154), 164, \*\* 65. 1, 157), (29, 31,

(143, 145), (26,

5), \* (2, 12, 33, 4, 99), \*\* 188,

(73, 92, 94, 95, 143, 153), (78, D), (156, 162), , (84, 163, 166, , 167, 178), 69,

18, 154, (I,

, 31), (29, 33),

## Passed the Aniversity Graminations.

SESSION 1898-99.

#### FACULTY OF LAW.

PASSED FOR THE DEGREE OF B.C.L.

(In order of merit.)

Lynch, W. H.,	Mansonville, Que
Lynch, W. H., Drolet, E. B., B.A.	(Laval), Montreal
Saunders, F. C.,	Montreal
Décarie, J. N. F., B	.A., Notre Dame de
Grâce, Que	
Ives, W. C.,	Macleod, Alberta
McIver, W. E.,	Melbourne, Que

Carter, W. F., Que	B.A.Sc., Cowansville,
Ball, W. S., Vipond, E. E.,	East Bolton, Que
Semple, G. H.,	B.A. (Laval), Montreal
Thorneloe, W.	E. G., B.A, Montreal

#### FACULTY OF MEDICINE.

#### PASSED FOR THE DEGREE OF M.D., C.M.

#### (Arranged alphabetically.)

#### FACULTY OF ARTS.

#### PASSED FOR THE DEGREE OF B.A.

In Honours. (Alphabetically arranged.)

- First Rank.-BROWN, WALTER G. ELLS, R. HUGH. FINLEY, KATHLEEN E. HENDERSON, ERNEST H. HOLIDAY, ANNIE. KEITH, HENRY J. MACLEOD, JOHN B. MCCLUNG, ROBERT K. PATCH, FRANK S. RICE, HORACE C. ROBERTSON, LEMUEL. SCRIMGER, ANNA M. WAINWRIGHT, ARNOLD. Second Rank .- HARDISTY, RICHARD H. M. KING, CHRISTINA C. LAURIE, ERNEST. MCDOUGALL, LOUISE. MCGILL WINIFRED. POTTER, LUCY E. REID, LENA MCK. THOMPSON, J. E. Ordinary B.A. (In order of merit.) Class I. - COTTON, C. M. Class II.-SEIFERT, F. H. (Morrin) JOHNSON, H. HEENEY, W. B. MACDONALD, P. A.
- JOHNSON, H. HEENEY, W. B. MACDONALD, P. A. Class 111.—RADFORD JANET. ARMSTRONG, C. CUMMING, W. G. HURST, I. M. LUNDIE, J. A. BRODIE, M. JACKSON, EMMA, (Morrin) HOLLAND, T. B. MUNROE, T. A. REYNOLDS, L. E. MAUDE. *Æger.*—BRUCE, GUY O. T. MACKAY, HECTOR.

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STUDENTS IN

Class 1. -ST Mc WI MA DIC BEN Class II.-STR BAR Bro Сор Сот McL MOL PAG SMIT McD TEES. LOCH HARP

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STUDENTS IN ARTS REGISTERED IN THE MEDICAL FACULTY ON WHOM THE DEGREE OF B. A. WAS CONFERRED IN JUNE ON COMPLETING THEIR MEDICAL YEAR.

(In alphabetical order.)

DIXON, W. E. GARDNER, R. L. GOODALL, J. R. JOHNSON, R. DEL. WHITE, E. H.

ADMITTED TO THE DEGREE OF B.A. AD EUNDEM GRADUM. Oulton, Geo. Johnson.

BACHELORS OF ARTS PROCEEDING TO THE DEGREE OF M. A. IN COURSE

CAMERON, SUSAN ELIZABETH. HUTCHINSON, DAVID. JAQUAYS, HOMER M. LYMAN, KATHERINE T. ROBERTSON, JOHN C.

ADMITTED TO THE DEGREE OF D.SC. AD EUNDEM GRADUM. NICOLSON, J. T., D.Sc. (Edin.)

ADMITTED TO THE DEGREE OF LL.D. HONORIS CAUSA.

DOUGLAS JAS. HARRINGTON, BERNARD J., PH D. (Yale).

#### INTERMEDIATE EXAMINATION.

Class	1 STERNS, H. EDGAR.
	MCEWEN, JOHN R. ]
	WILLIAMS, HY. S. ]
	MACNAUGHTON, WM. G.
	DICKSON, NORVAL.
	BENNETT, C. WINIFRED.
Class	II STRONG, NORMAN W.
	BARRINGTON, FRED. H.
	BROWN, EDWIN O.
	COPEMAN, JOSEPH HODGE. >
	COTTON, WM. V.
	McLEOD, ANGUS B.
	MOLSON, EVELYN.
	PAGE, HARRIET A.
	SMITH, E. (Morrin)
	MCDONALD JOHN. )
	TEES, FRED. J.
	LOCHEAD, ARTHUR W.
	HARPER, ROBT. J. )
	RADFORD, ISABEL. )
	MCPHERSON, THOS.

Class III.-BUDDEN, ELLEN M. Reid, C. S. (Morrin) 3 BROWN, ALBERT VICTOR. HICKSON, ROBT, N. MITCHELL, ISAIAH E. FULLER, GEO. D. LINDSAY, JNO. E. MOFFATT, CHAS. F. SCRIMGER, FRANCIS A. C. STEPHENS, LAURENCE DE K. BOULTER, J. HY. BUDDEN, JESSIE M. (8). CHARTERS, HERBERT. (8). CHIPMAN, WARWICK F. (8). HUXTABLE, GERTRUDE M. (8). MOLSON, PERCIVAL. (8). FRASER, E. M. (Morrin) (s) NICHOLSON, WM. (Morrin) (s)

s. With supplemental in one subject (arranged alphabetically.)

#### FACULTY OF APPLIED SCIENCE.

PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE.

#### (In Order of Merit.)

#### ARCHITECTURE.

Hyde, George Taylor, Montreal, Que. McLeod, Norman M., Montreal, Que. Peden, Frank, Montreal, Que.

#### CIVIL ENGINEERING.

Colpitts, Walter William, Moncton, N.B. Fraser, Charles Edward, Montreal, Que. Gagnon, Louis Frederic, Montreal, Que. Gough. Richard Thomas, Halifax, N.S. Van Horne, Richard Benedict, Montreal, Que.

#### ELECTRICAL ENGINEERING.

Grier, Arthur Gordon, Montreal, Que. Archibald, Ernest Matthew, Halifax, N.S. Denis, Leopold, Montreal, Que. Shaw, John Aitkin, Montreal, Que. Wilson, Robert Manson, Montreal, Que. ADMITTE

Coker, Ernest

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Featherstonhaugh, Edward Phillips, Montreal, Que. Fraser, James William, Bridgeville, N.S. Hyde, James Clark, Montreal, Que. Burgess, Rufus Earl, Wolfville, N.S. Bowman, Archibald Abercromby, New Glasgow, N.S. Fraser, Harold, Brockville, Ont. McLea, Ernest Hope, Montreal, Que.

#### MECHANICAL ENGINEERING.

McLean, William Brown, Pictou, N.S. Young, William McGie, Renfrew, Ont. Dargavel, James Sawtell, Elgin, Ont. Whyte, John Smith, Osgood, Ont. Wenger, Edgar Isaac, Ayton, Ont. Gisborne, Lionel Leatham, Ottawa, Ont. Davidson, William Alexander, Peterboro, Ont. } equal Hickey, John Valentine, Montreal, Que. Ewan, Herbert Marvin, Montreal, Que. Austin, Claude Vernon Cecil, Ottawa, Ont. Yorston, Louis, Pictou, N.S.

#### MINING ENGINEERING.

Kirkpatrick, Stafford Frederick, Kingston, Ont. Blaylock, Selwyn Gwillym, Danville, Que. Preston, John, Toronto, Ont. Yuile, Norman McLeod, Montreal, Que. Campbell, Norman McLeod, Montreal, Que. Morgan, Charles Baird, Hamilton, Ont. Pitcher. Norman Charles, Stanstead, Que. MacInnes, Henry Walter, Halifax, N.S. Moore, William Agnew, Ottawa, Ont. Waller, George William, Bartonville, Ont.

#### PRACTICAL CHEMISTRY.

Hutchinson, William Scott, Montreal, Que. MacLaren, Archibald James, Montreal, Que.

#### ADMITTED TO THE DEGREE OF BACHELOR OF SCIENCE.

#### (Ad eundem.)

T

Coker, Ernest, G., B.Sc. (Edinburgh).

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#### ADMITTED TO THE DEGREE OF MASTER OF SCIENCE.

290

#### (In Course.)

Bell, John Wainwright, B.A.Sc., McGill University, Montreal. Hedrick, Ira Grant, B.C.E., B.A.Sc. (Univ. Arkansas and McGill). Jaquays, Homer Morton, B.A., B.A.Sc. (McGill). Mellanby, Alexander Lawson, B.E., B.A.Sc. (Durham and McGill). Strickland, Tom Percival, B.E., B.A.Sc. (Univ. of Sidney and McGill).

#### ADMITTED TO THE DEGREE OF DOCTOR OF SCIENCE.

#### (Ad eundem.)

John T. Nicolson, D.Sc. (Edinburgh).

#### FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

#### PASSED FOR THE DEGREE OF D.V.S.

Fahey, J. F. Gellatley, G. Groves, J. W. Hammond, E. W. Kato, Y. McGregor, James.



1898 Mc(

Year of Name Award. 1897 McClur 1897 Hender 1897 Roberts 1897 Wainwr Radford 1898 1898 Dey, Ma 1898 Cochrane

1898 Ferguson 1898 Nutter, J

NAMES OF EXH TIONERS.

Johnson, J. Guy V Brooks, Elizabeth Woodley, E. C. Willis, Sam. J.

Sterns, H. Edgar McEwen, John R. Brown, Edwin O. Copeman, Jos. Hodg Muir, Kenneth C. Munn, W. Clement Smith, Miriam G.

Warriner, J. Eva

Jack, Milton

\* The Sir J. Willia total of \$90.

# Scholarships, Exhibitions and Prize.

#### SESSION 1898-99.

#### FACULTY OF ARTS.

I. PRIZE.

#### 1898 McClung, Robt. K., Anne Molson Mathematical Prize.

II. SCHOLARSHIPS (Tenable for two years).

Year of Award.	Names of Scholars.	Subjects of Exam- ination.	Annual Value.	Founder or Donor.
1897	McClung, Robt. K.	Mathematics	\$125	Sir W. C. Macdonald
1897	Henderson, Ernest H.	Nat. Science	125	Sir W. C. Macdonald
1897	Robertson, Lemuel	Class. & Mod. Lang	125	Sir W. C. Macdonald
1897	Wainwright, Arnold	Class.& Mod. Lang	125	Sir W. C. Macdonald
1898	Radford, E. Alan	Mathematics	125	Sir W. C. Macdonald
1898	Dey, Mary H.	Mathematics	125	Lord Strathcona and
-			5	Mount Royal
1898	Cochrane, Donald	Nat. Science	125	Sir W. C. Macdonald
1898	Ferguson, Colin C.	Class. & Mod. Lang	100	Miss Barbara Scott
1898	Nutter, J. Appleton	Class.&Mod.Lang	90	Chas. Alexander, Esq.

#### III. EXHIBITIONS (Tenable for one year).

NAMES OF EXHIBI- TIONERS.	Aca- demic Year.	Subject of Examination.	Annual Value.	Founder or Donor.
Talana I. Can W	77.1.1	Mathematics		A
Johnson, J. Guy W.	Third	Mathematics	\$100	Anonymous
Brooks, Elizabeth	"	Mathematics	100	Anonymous
Woodley, E. C.	66	Natural Science	90	Anonymous
Willis, Sam. J.	••	Class,& Mod.Lang	60	New York Graduates' Society*
Sterns, H. Edgar	Second		125	Sir W. C. Macdonald
McEwen, John R.	**		125	Sir W. C. Macdonald
Brown, Edwin O.	66		125	George Hague, Esq.
Copeman, Jos. Hodge	**		100	Major Hiram Mills.
Muir, Kenneth C.	First		200	Anonymous
Munn, W. Clement			200	Anonymous
Smith, Miriam G.			120	Lord Strathcona and
Warriner, J. Eva			100	Mount Royal Lord Strathcona and Mount Royal
Jack, Milton	"		90	Mrs. Jane Redpath.

\* The Sir J. William Dawson Exhibition. To this was added \$30, making 1 total of \$90.

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## Prizes, Konours and Standing.

SESSION 1898-18	899.
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#### FACULTY OF LAW.

#### RESULTS OF EXAMINATIONS.

#### THIRD YEAR.

	Sat
<ul> <li>Walter H. Lynch, Mansonville, Q., First Rank Honours and Elizabeth Torrance Gold Medal.</li> <li>Edmond B. Drolet, B.A., Montreal, First Rank Honours and Prize</li> </ul>	I CIVIL PR Drc
of \$50. Frank C. Saunders, Montreal, First Rank Honours and Prize of \$25.	T.
STANDING IN THE CLASSES.	H. A. Chauv
THIRD YEAR.	lars. S. G. Archib
ROMAN LAW—Dean WALTON. Lynch, Saunders, Drolet, Thorneloe, Ives, McIver, Décarie, Ball, Semple, Vipond, Carter.	Twenty-fi A. W. G. Ma L. Macfarlane
CONSTITUTIONAL LAW— Dean WALTON. Lynch, Carter, Saunders, Drolet, Thorneloe, McIver, Semple and Décarie, equal; Ball, Vipond, Ives.	PASSED T Chauvin, Arch
CRIMINAL LAW—Professor C. P. DAVIDSON. Lynch, Drolet, Décarie and Ives, equal; Ball, Saunders, Vi- pond, Thorneloe, McIver, Carter, Semple.	Baker, equ neau, Burk
HISTORY, PARTNERSHIP, CORPORATIONS-Professor Me- Goun.	REAL RIGHT Chauvin

Saunders, Drolet, Carter, Lynch, Ives, Décarie, Ball, Mc-Iver, Semple, Vipond, Thorneloe.

#### COMMERCIAL LAW-Professor MCMASTER.

Lynch and Ives, equal; Saunders, Drolet, Semple, Décarie, CIVIL PROCE Thorneloe, Vipond, McIver, Carter, Ball.

PRESCRIPTION, LEASE MUNICIPAL, MARRIAGE COVE-NANTS--Professor Fortin. Vipond, Décarie, Lynch, Drolet, Ives, Saunders, Semple, CRIMINAL LA

Thorneloe, Ball, Carter, McIver.

Chauvin, bell, M Mackay

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Chauvin, Macfarlane, Macalister, Archibald, Margolese, Burke, Redpath, Mackay and Baker, equal; Garneau, Rinfret and Dobell, equal; Pearson, Mayrand, Kay, Walsh, Enright.

CIVIL PROCEDUREole, Décarie, Chauvin and Macfarlane, equal; Macalister, Archibald, Baker, Margolese, Walsh, Garneau and Mackay and Rinfret, equal; GE COVE-Pearson, Burke, Kay, Mayrand, Enright, Redpath, Dobell.

ers, Semple, CRIMINAL LAW-Chauvin, Archibald, Macalister, Macfarlane, Redpath, Dobell, Mayrand, Baker and Kay, equal; Margolese, Walsh, Mackay, Burke, Pearson, Rinfret, Enright, Garneau.

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OBLIGATIONS-MR. AIME GEOFFRION. Saunders, Décarie, McIver and Drolet, equal; Ives, Carter, Vipond and Lynch, equal; Semple, Ball, Thorneloe.

an.

- REAL RIGHTS-Professor MARLER. Drolet, Décarie, Ives, Saunders, Lynch, Carter and Semple, equal; Ball and McIver, equal; Vipond, Thorneloe.
- SUCCESSIONS AND GIFTS-Professor DOHERTY. Saunders, Drolet, McIver, Ives, Lynch, Ball, Carter, Décarie and Vipond, equal; Semple, Thorneloe.
- INTERNATIONAL LAW AND PERSONS-Professor LAFLEUR. Saunders, Drolet, Lynch, Ball, Décarie, Carter, Ives, Mc-Iver, Vipond, Thorneloe.

CIVIL PROCEDURE-MR RYAN. Drolet, Lynch, Ives, Décarie and Saunders, equal; Carter, Thorneloe, Ball, Semple, Vipond, McIver.

#### SECOND YEAR.

- H. A. Chauvin, First Rank General Standing and Prize of Fifty Dollars. S. G. Archibald, B.A., First Rank General Standing and Prize of
- Twenty-five Dollars.
- A. W. G. Macalister, First Rank General Standing. L. Macfarlane, B.A., First Rank General Standing.

PASSED THE SESSIONAL EXAMINATIONS, IN ORDER OF MERIT.

- Iver, Semple
  - Chauvin, Archibald, Macalister, Macfarlane, Margolese, Redpath and Baker, equal; Mackay, Rinfret, Pearson, Walsh, Dobell, Garneau, Burke, Mayrand, Enright, Kay.

STANDING IN THE CLASSES. REAL RIGHTS-

#### PUBLIC INTERNATIONAL LAW-

Chauvin, Archibald and Macfarlane, equal; Mackay, Macalister, Baker, Garneau, Margolese, Enright and Redpath, equal; Burke, Pearson, Walsh, Mayrand, Kay, Rinfret and Dobell, equal.

### PRESCRIPTION, LEASE AND HIRE, AND MUNICIPAL LAW-

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#### Chauvin, Macalister, Archibald, Redpath, Dobell, Margolese, Baker, Pearson, Rinfret, Walsh, Mackay, Macfarlane and Enright and Kay, equal; Burke, Garneau, Mayrand.

#### COMMERCIAL LAW-

Chauvin and Redpath, 'equal; Archibald and Macfarlane, equal; Pearson, Macalister, Walsh, Rinfret, Baker, Margolese, Garneau, Dobell, Burke, Enright, Kay, Mackay, Mayrand.

#### CORPORATIONS-

Chauvin, Macalister, Archibald, Redpath, Macíarlane and Mackay, equal; Margolese, Rinfret, Mayrand, Pearson, Enright, Garneau, Walsh, Kay, Baker, Burke, Dobell.

ROMAN LAW-

Chauvin, Archibald, Margolese, Macfarlane, Macalister and Baker and Redpath, equal; Enright, Mackay, Rinfret, Mayrand, Dobell and Kay, equal; Walsh, Burke, Pearson, Garneau.

#### FIRST YEAR.

- E. G. Place, B.A., First Rank General Standing and Scholarship of One Hundred Dollars.
- G. A. Campbell, B.A., First Rank General Standing and Scholarship of One Hundred Dollars.
- R. C. McMichael, First Rank General Standing, Prize of Twenty-five Dollars and British Columbia Graduates' Society Prize of Ten Dollars.
- D. M. Rowat, B.A., First Rank General Standing.
- A. R. Holden, B.A., First Rank General Standing.
- A. E. Doak, First Rank General Standing.
- J. R. Thompson, B.A., First Rank General Standing.

#### PASSED THE SESSIONAL EXAMINATIONS, IN ORDER OF MERIT.

Place, Campbell, McMichael, Rowat, Holden, Doak, Thompson, Mann, Moffat, Westover, Mitchell, Skinner, Beique, Meagher, Curran, Normandin.

McMaster and Springle, Aegrotant.

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### STANDING IN THE CLASSES.

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# UNICIPAL

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MERIT.

Thompson, Meagher,

# 295

Place and Campbell, equal; McMichael, Holden, Rowat, Doak, Thompson, Mann, Westover, Moffat, Skinner, Beique, Mitchell, Curran, Normandin, Meagher.

# CONSTITUTIONAL LAW-

Place, Campbell and Holden, equal; Thompson, McMichael, Rowat, Doak, Moffat and Westover, Mann, Normandin, Mitchell, Skinner and Curran, equal; Meagher, Seith, Beique.

### PERSONS-

ROMAN LAW-

Campbell and Place, equal; McMichael, Holden, Doak, Rowat and Skinner, equal; Thompson, Mann. Moffat, Meagher, Westover, Normandin, Mitchell, Beique, Armstrong and Curran, equal.

## REAL RIGHTS-

Doak, Place and Campbell, equal; Holden and Rowat, equal; Thompson, Mann, Moffat, McMichael, Westover, Skinner, Curran, Beique, Meagher, Mitchell, Seath.

#### SUCCESSIONS-

Rowat, McMichael, Place and Campbell, equal: Doak, Holden and Mann, equal; Westover, Mitchell, Thompson, Skinner, Beique, Curran, Meagher, Moffat, Normandin.

### CIVIL PROCEDURE-

Campbell, McMichael, Rowat, Place, Holden, Doak and Thompson, equal; Mann, Skinner, Moffat, Mitchell, Curran, Meagher, Normandin, Westover, Beique, Seath.

### LEGAL HISTORY-

Campbell, Place, McMichael, Doak, Rowat, Holden and Thompson, equal; Moffat, Mann, Curran and Westover, equal: Skinner and Mitchell, equal; Beique, Normandin, Meagher, Seath.

### OBLIGATIONS-

Place, Rowat, Campbell, Thompson, Holden, McMichael, Doak, Beique, Moffat, Westover, Mann, Normandin, Meagher, Mitchell and Curran, equal.

# FACULTY OF MEDICINE.

### MEDALS AND PRIZES.

The HOLMES GOLD MEDAL for highest aggregate in all subjects forming the Medical Curriculum, A. H. GORDON, of St. John, N.B.

The FINAL PRIZEMAN for highest aggregate in Fourth Year Subjects, T. G. MCNIECE, of Carsonby, Ont.

The CLEMESHA PRIZE for Clinical Therapeutics, F. J. NICHOLSON, B.A., of Victoria, B.C.

The MCGILL MEDICAL SOCIETY SENIOR PRIZES, 1st Prize, T.G. MCNIECE; 2nd Prize, F. T. TOOKE, B.A.

The THIRD YEAR PRIZEMAN, E. R. SECORD, Brantford, Ont.

The SUTHERLAND MEDALLIST, J. W. T. PATION, Ponds, N.S.

The SECOND YEAR PRIZEMAN, R. H. KER, B.A., Montreal.

The SENIOR ANATOMY PRIZE, J. BRUCE, B.A., Moncton, N.B.

The MCGILL MEDICAL SOCIETY JUNIOR PRIZES, 1st Prize, C. SHEARER; 2nd Prize, R. P. CAMPBELL, B.A.

The FIRST YEAR PRIZEMAN, R. M. VAN WART, B.A., Fredericton, N.B. The JUNIOR ANATOMY PRIZE, R. M. VAN WART, B.A.

# FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

#### PRIZES.

Veterinary Medicine and Surgery-James McGregor.

Cattle Pathology-James McGregor.

Materia Medica-James McGregor.

Anatomy-B. F. Humphries.

Physiology-W. C. Smith.

Cynology-J. W. Groves.

Chemistry-B. F. Humphries.

Botany-J. T. Rork.

For the best general examination in all subjects, a silver medal, the gift of the Dean-James McGregor.

For the best final oral examination before the Board of Examniers-J. W. Groves.

Extra Prizes:-For the best essay read before the Veterinary Medical Association-1st, George Gellatly; 2nd, James McGregor.

For the best essay read before the Society for the study of Comparative Psychology—1st, James McGregor; 2nd, George Gellatly; 3rd, E. W. HammondMCCLUNG

ROBERTS

HOLIDAY, HENDERSC ELLS, R. REID, LE:

WAINWRIG SCRIMGER, MACLEOD, BROWN, W KEITH, HE LAURIE, EI POTTER, L MCGILL, I. THOMPSON,

PATCH, FRA MCDOUGALI HARDISTY, 1

KING, CHRIS

FINLEY, KA

RICE, HORAC

COTTON, CH.

DOVER, M. V. BISHOP, W. G MEYER, J. B.,

MARCUSE, BEI and l RADFORD, E. Mathe

# FACULTY OF ARTS.

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GRADUATING CLASS.

B. A. Honours in Mathematics and Natural Philosophy. MCCLUNG, ROBERT K.-First Rank Honours and Anne Molson Gold Medal

B. A. Honours in Classics.

ROBERTSON, LEMUEL .-- First Rank Honours and Chapman Gold Medal.

B. A. Honours in Geology, Mineratogy and Palcontology HOLIDAY, ANNIE.—First Rank Honours and Logan Gold Medal. HENDERSON, ERNEST.—First Rank Honours and Logan Prize ELLS, R. HUGH.—First Rank Honours.

REID, LENA MCK .- Second Rank Honours.

#### B A. Honours in Mental and Moral Philosophy.

WAINWRIGHT, ARNOLDFirst Rank Honours and Prince	e of	Wales	Gold	Medal.
SCRIMGER, ANNA M First Rank Honours.				
MACLEOD, JOHN B First Rank Honours.				
BROWN, WALTER G First Rank Honours.				
KEITH, HENRY JFirst Rank Honours.				
LAURIE, ERNESTSecond Rank Honours.				
POTTER, LUCY ESecond Rank Honours.				
MCGILL, I. WINIFREDSecond Rank Honours.				
THOMPSON, JAMES E —Second Rank Honours.				

B. A. Honours in English Language, Literature and History. PATCH, FRANK S.—First Rank Honours and Shakspere Gold Medal. McDoUGALL, LOUISE.—Second Rank Honours. HARDISTY, RICHARD H. M. —Second Rank Honours.

B. A. Honours in Biology.

KING, CHRISTINA C .- Second Rank Honours.

B.A. Honours in Modern Languages and History. FINLEY, KATHLEEN E.-First Rank Honours and Minto Gold Medal.

B.A. Honours in Semitic Languages and Literature. RICE, HORACE G.—First Rank Honours.

# First Rank General Standing.

COTTON, CHAS. M.-Hiram Mills Gold Medal.

DOVER, M. V., B.A. (*Graduate Course*). First Rank Honour Standing in Biology. BISHOP, W. GORDON, B.A., Early English Text Society's Prize. MEYER, J. B., B.A., The Neil Stewart Hebrew Prize.

### THIRD YEAR.

MARCUSE, BELLA.—First Rank Honours in Natural Science; First Rank Honours and Prize in Mental and Moral Philosophy. RADFORD, E. ALAN.—First Rank Honours in Classics; Second Rank Honours in

Mathematics and Natural Philosophy; First Rank General Standing.

### forming the

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N, B.A., of

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COCHRANE, DONALD.—First Rank Honours in Natural Science; First Rank General Standing; Prize in Physics.

DEY, MARY H.—First Rank Honours and Prize in Modern Languages and History : First Rank General Standing.

NUTTER, J. APPLETON.-First Rank Honours and Prize in English Language, Literature and History; First Rank General Standing.

HARDY, CHARLES A.—First Rank Honours and Prize in Mental and Moral Philosophy; First Rank General Standing; Prize in Hebrew.

JOHNSON, J. GUY W.—First Rank Honours in Mathematics and Natural Philosophy ; First Rank General Standing.

FERGUSON, COLIN C.-First Rank Honours in Classics; First Rank General Standing.

WILLIS, SAMUEL J .- First Rank Honours in Classics ; Prize in Latin.

NEWSON, WILLIAM V.-First Rank Honours in Natural Science.

MCGREGOR, CLAIRE R .- First Rank Honours in Mental and Moral Philosophy.

COOKE, LESTER H .- First Rank Honours in Mental and Moral Philosophy.

CROWELL, BEAUMONT C .- First Rank Honours in Mental and Moral Philosophy.

ELLS, SYDNEY C.—First Rank Honours in English Language, Literature and History. WOODLEY, EDWARD C.—First Rank Honours in English Language, Literature and History.

SCOTT, GEORGE W.-Second Rank Honours in Mathematics and Natural Philosophy. FORBES, WILFRED M.-Second Rank Honours in Classics.

BROOKS. ELIZABETH A .- Second Rank Honours in Classics.

COHEN, ABRAHAM.—Second Rank Honours in Mental and Moral Philosophy; First Rank General Standing.

RORKE, HELEN.-Second Rank Honours in English Language, Literature and History.

MACMILLAN, CYRUS J.-Second Rank Honours in English Language, Literature and History.

DEWITT, JACOB.-Second Rank Honours in English Language, Literature and History."

WEINFELD, HENRY.-Second Rank Honours in English Language, Literature and History.

JACKSON, E. GERTRUDE.-Second Rank Honours in English Language, Literature and History.

GARLICK, EDYTHE A.—First Rank General Standing : Prize in Greek ; Prize in Latin. ELDER, ROBERT.—First Rank General Standing.

RITCHIE, CHARLES F.-Prize in French.

CARR, MURIEL (B. A.)-(Graduate Course).-First Rank Honour Standing in English Literature.

DOVER, M. V, (B. A.)-(Graduate Course).-First Rank Honour Standing in Mineralogy.

### THIRD YEAR.

### PASSED THE SESSIONAL EXAMINATION.

Cochrane, Dey, Garlick, Nutter; Elder and Hardy and Johnson (J. G.), equal; Cohen and Radford, equal; Ferguson, Rowell, Marcuse; Lee and Woodley, equal; Crack; Crowell and Willis, equal; Grier and MacKinnon and McGregor, Dixon

ERNS

BARRIN

BROWN.

DICKSON

MCEWEN William MacNau

MACNAU Bennett,

McLEOD,

Cotton, Page, Ha Radford,

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CROWELL in Mei ASTLE, THO: MUNN, W. CARLYLE, E in ( MCLACHLAN IRVING, ELIZ

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Rank General

and History :

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Ioral Philoso-

1 Philosophy ;

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Literature

ze in Latin.

in English

in Minera-

ial; Cohen ey, equal; McGregor,

# 299

equal; Forbes and Jackson and Newson and Scott (G. W.) and Smith, equal; Cooke; Rorke and Weinfeld, equal; Holman, Ells, Lundie, MacMillan, Brooks, Ainley, Stewart, DeWitt, Millar.

STUDENTS REGISTERED IN THE MEDICAL FACULTY.

# Dixon, Ritchie, Walker. Avranged alphabetically.

#### SECOND YEAR.

- ERNS, H. E.—(Prince of Wales College, P. E. I.). First Rank Honours and Prize in Mathematics : First Rank General Standing ; Vancouver Society's Prize ; Prize in Greek ; Prize in Latin ; Prize in Logic ; Prize in German. BARRINGTON, FRED. H.—(Waterloo Academy). First Rank Honours and Prize in
- Mathematics. BROWN, E. O.--(Prince of Wales College, P. E. I.). Second Rank Honours in Mathe-
- matics.
- DICKSON, NORVAL, (Huntingdon Academy.)—First Rank General Standing. Prize in French.
- MCEWEN, JOHN R., (Huntingdon Academy.)-First Rank General Standing.
- WILLIAMS, HENRY S., (M. H. S.)-First Rank General Standing.
- MACNAUGHTON, WM. G., (Huntingdon Academy.)—First Rank General Standing. BENNETT, C. WINIFRED, (M. G. H. S.)—First Rank General Standing, Prize in French.
- McLEOD, ANGUS B., (Prince of Wales Coll., P.E.I.)-Prize in Hebrew. Prize in Botany.

COTTON, WM. U., (Feller Institute.)-Prize in History.

PAGE, HARRIET, (Stanstead Wesleyan Coll.)—Prize in Botany. Prize in German. RADFORD, ISABEL, (Misses Symmers and Smith.)—Prize in French.

# SECOND YEAR.

### PASSED THE SESSIONAL EXAMINATION.

- Class I.—Sterns; McEwan and Williams, equal; McNaughton, Dickson, Bennett. Class II.—Strong; Barrington and Brown (C.) and Copeman and Cotton and McLeod, equal; Molson (E.), Page; McDonald and Tees, equal; Lochead Harper and Radford, equal; McPherson.
- Class III.—Budden (E.), Brown (A V.), Hickson, Mitchell; Fuller and Lindsay, equal; Mc. att; Scrimger and Stephens, equal; Boulter, Budden (J.) (s Charter s), Chipman (s), Huxtable (s), Molson (P.) (s).
  - s.-With s pplemental examination in one subject (arranged alphabetically).

#### FIRST YEAR.

- CROWELL SAMUEL G., (Yarmouth Academy, N.S.) First Rank Honours and Prize in Mathematics; Prize in Latin; First Rank General Standing; Coster Memorial Prize.
- ASTLE, THOMAS S., (Albert College.)—First Rank Honours and Prize in Mathematics. MUNN, W. CLEMENT, (Quebec H. S.)—First Rank Honours and Prize in Mathematics; Prize in Greek; Prize in English, First Rank General Standing.
- CARLYLE, ERNEST J., (Woodstock Coll. Inst.)- First Rank General Standing; Prize in Greek.

MCLACHLAN JESSIE W., (M. G. H. S.)-Prize in German.

IRVING, ELIZABETH, (Prince of Wales Coll.)-Prize in English.

### FIRST YEAR.

#### PASSED THE SESSIONAL EXAMINATION.

Munn,	Carlyle, Crowell, Harris; Smith; Astle and Murphy and McLachlan, equal;
	Ellison (A.) and Hitchcock and Irving and Muir and Pruyn, equal : Jack,
	Fox, Warriner, Nolan, Cole, Carson, Price, Adams, Ascah (s), Blagrave (s),
	Eaton (s), Ogilvie (s), Schrag (s).
(8)	) With supplemental examination in one subject (arranged alphabetically).

### AWARD OF SCHOLARSHIPS, EXHIBITIONS AND PRIZES. SEPTEMBER, 1898.

#### I. FOURTH YEAR .- Anne Molson Mathematical Prize.-McClung (Robt. K.).

- II. THIRD YEAR.-SCHOLARSHIPS (tenable for two years) and EXHIBITIONS (tenable for one year).
  - Mathematical.—Radford (E. Alan), Scholarship (a); Dey (M. Helena), Scholarship (b); Johnson (J. Guy W.), Exhibition (c); Brooks (El.), Exhibition (c).
  - Natural Science.—Cochrane (Donald), Scholarship (a); Woodley (E. C.,) Exhibition (g).
  - Classical and Modern Language.—Ferguson (Colin C.), Scholarship (e); Nutter (J. Appleton), Scholarship (f); Willis (Sam. J.), Exhibition (p).

#### III. SECOND YEAR.-EXHIBITIONS (tenable for one year.)

- (a) Sterns (H. Edgar), Prince of Wales College, P.E.I.
- (a) McEwen (John R.), Huntingdon Academy.
- (h) Brown (Edwin O.), Prince of Wales College, P.E.I.
- (i) Copeman (Joseph Hodge), Quebec High School.
- IV. FIRST YEAR.-EXHIBITIONS (tenable for one year).
  - (k) Muir, Kenneth C.), Huntingdon Academy.
  - (k) Munn (W. Clement), Quebec High School.
  - (1) Smith (Miriam G.), Morrisburg Collegiate Inst.
  - (m) Warriner (J. Eva), M.G.H.S. and Private Tuition.
  - (n) Jack (Milton), Montreal Collegiate Inst.

(a) Annual value \$125-Founder, W. C. McDonald, Esq.

- (b) " \$125-Donor, Lord Strathcona and Mount Royal.
- (0) " " \$100-
- (e) " "\$100-Founder, Barbara Scott.
- (f) " " \$90— " Chas. Alexander, Esq.
  - (9) " " \$90-
  - (h) " \$125-Donor, Geo. Hague, Esq.
    - " \$100-Founder, Major Hiram Mills.
  - (k: " " \$200-

(i)

- (1) " \$120-Donor, Lord Strathcona and Mount Royal.
- (m) " " \$100- " Lord Strathcona and Mount Royal
- (n) " \$90-Founder, Mrs. Jane Redpath.

(p) Sir Wm. Dawson Exhibition and \$30.

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Class I. Robertsc Cotton.

Class 11. None.

Class 111. Holland.

L Class I. Robertson

Class II. Cotton.

Class III.

Hurst, Munroe, Johnson, Armstrong, Reynolds, Seifert, (*Mo* Brodie, Cumming, Lundie.

# 301 SUFPLEMENTAL EXAMINATIONS.

# PASSED.

### September to Christmas, 1898.

(a) Supplemental Sessional.

THIRD YEAR.—Duguid (Robt. C.), Heeney (Wm. B.), Munroe (Thos. A.), Hurst (Isabel M.), Armstrong (Cath.), Reynolds

(L. E. M.).

SECOND YEAR.-Crack (Isaac E.), Lundie (Jessie F.), McGregor (Claire R.), Perley (Frances B).

FIRST YEAR.-Cole (G. Percy), Day (Daisy W.).

(b) Supplemental in one Subject.

SECOND YEAR.-Grier (Geo. W.), Jeakins (Chas. E.), Millar (W. Kinloch), Reference Vewis L.), Woodley (Ed. C.), Holman (Carrie E.), M. (S.)

FIRST YEAR.-Irving (Geo.), Mount (Hector P.), Brodie (Hugh H.), Budden (Ellen M.), Budden (Jessie M.), Carruthers (Chris.).

# STANDING IN THE SEVERAL SUBJECTS.

Students of equal standing are bracketed together.

Students of Morrin College are indicated by (Mor.).

# B. A. ORDINARY. MECHANICS.

# GREEK. Class 1. Robertson,

Cotton. Class II. None.

Class III. Holland.

LATIN. Class I. Robertson.

Class II. Cotton.

Class 111. Hurst, Munroe, Johnson, Armstrong, Reynolds, Seifert, (Mor.) Brodie, Cumming, Lundie. Class I. Cotton, Thompson, Seifert (Mor.) McDonald, Keith. Class II. Johnson H.,

Keith. lass 11. Johnson H., MacLeod, Gardner,

Armstrong, Cumming, Wainwright, Lundie. Class 111. Johnson De L, Meiklejohn (Mor.) Jackson (Mor.) }

Laurie,

Brodie, Heeney,

Patch,

Hurst,

Hardisty

Duguid,

Reynolds.

Brown.

OPTICS. Class 1. McClung, Armstrong, Cotton,

Seitert, (Mor.)

ASTRONOMY AND

Class 11. Johnson H. Johnson R. de L. Meiklejohn (Mor.)

Class III. Heeney, McDonald, Lundie, Cumning, Duguid, Jackson (Mor.)

PHYSICS.

Class II. Johnson, H.

Class III. iiurst.

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(. Helena), poks (El.),

y (E. C.,)

holarship), Exhibi-

#### B. A. ORDINARY. LABORATORY COURSES ENGLISH LITERATURE. HEBREW. ELECTRICITY AND MAGNETISM. Class I. Class I. Class 1. Rice. Cotton, McClung. Patch, Class 11. McDougall, HEAT, LIGHT AND SOUND. McGill, Mackay. Class II. Heeney. GEOLOGY AND MINER-Johnson H. Class II. ALOGY. MORAL PHILOSOPHY. Hardisty, Class 1. Class 1. Reid, Henderson, Meiklejohn (Mor.) Wainwright, Seifert, (Mor.) Duguid, Ells, Scrimger, Holiday, Rice. Reid, Hurst, Cotton. Cotton, Reynolds, McLeod, Jackson (Mor.) Muaroe, Brown, Lundie. Lawrie, Class III. Johnson, H. Class 11. White, Reynolds, Mackay, Radford, Holland, Heeney, Hurst, McDonald, Cumming, Thompson. McKenzie, Brodie, Munroe, Class 11. Reynolds, Potter, Armstrong, McDonald, Holland, Goodall, Lundie, Armstrong. McGill, Brodie. Keith, Class III, Secord, FRENCH. Heeney, Lundie, Greig, Angell, Ciass 1. McInnis. Munroe, W., Cumming Finley, BOTANY. Hurst, Holiday, Brodie, Seifert (Mor.) Potter, Class 1. McDougall, Scrimger, Meiklejohn, (Mor.) } Jackson, (Mor.) } King. Class 11. Class II. Class 111. Dixon, Dover. Holland, Munroe, T. H., Goodall, Class III. Meiklejohn (Mor.) Jackson (Mor.) Radford. Gardner, Cumming, Brodie, Duguid, ZOOLOGY. Dixon, Armstrong, Class 1. McInnes, GERMAN. Henderson, White, Ells, Class I. Dover. Hicks, Finley. Class 11. Duguid, King. Kaine, Class II. McKenzie, Class 111. Johnson, Greig, Smith, G. E. Radford. King.

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Class 1. Garlic Fergu Radfor

Class II

Willis.

Class II.

Forbes, Brooks, Ainley, Crowell Smith.

## Class 1.

Willis, Ferguson Garlick, Forbes, Radford, Smith.

Class II.

Brooks, Jeakins, Dixon, Holman, Urack, Fyles (Ma Lundie.

#### Class III. Rowell, Ritchie, Cooke, Grier, McGregor Mackinnon Rorke, Walker, Millar.

Johnson, J. Rank.

# THIRD YEAR. MECHANICS.

GREEK,

Class 1.

EW.

D MINER-

Y.

Garlick, Ferguson, Radford.

Class II. Willis.

Class III.

Forbes, Brooks,

Ainley, Crowell,

Smith.

LATIN.

Class 1.

Willis, Ferguson, Garlick, Forbes, Radford,

Smith. Class II.

> Brooks, Jeakins, Dixon, Holman, Urack, Fyles (Mor.) Lundie.

Class III. Rowell, Ritchie, Cooke, Grier, McGregor Mackinnon, Rorke,

Walker,

Millar.

Class 1. Cochrane, Elder, Grier, Cohen, Rowell, Lee, Dey, Nutter, Garlick. Class 11. Radford, MacKinnon, Hardy, Crowell, Crack, Johnson, Smith, Ells, Ferguson. Class 111. Millar, Holman, Jackson, Marcuse, Newson, McGregor, Cooke, Willis, Ainsley, Forbes, Woodley, Fyles (Mor.) Stewart, Loverin (Mor.) Scott, Lundie, Brooks, DeWitt, Macmillan,

OPTICS. Class I. Dey, Hardy, Elder, Johnson, J. G. W. Rowell. Class 11. Nutter, Smith, Mackinnou, Cohen, Garlick, Newson, Crack, Lundie, McGregor, J Cooke. Class 111. Ells, Radford, Jackson, Scott, G. W., Millar, Holman, Fyles (Mor.) Laverie (Mor.) Macmillan, Weinfeld, Perley, Willis, Lee, Stewart, DeWitt, MacRae (Mor.) Jenkins. PHYSICS. Class 1.

ASTRONOMY

AND

Cochrane, G. Johnson J.G.W. Radford.

Class II. Scott, G. W.

Honours in Mathematics and Natural Philosophy.

Rank.

Weinfield.

Macrae (Mor.)

JOHNSON, J. G. W. -First RADFORD, E. A.-Second Rank.

SCOTT, G. W .- Second Rank.

# THIRD YEAR.

# PHYSICS.

# MENTAL PHILOSOPHY.

FRENCH.

LABORATORY COURSE.

Class I.

Cochrane.

Class II.

Johnson (J. G. W.), Radford, Scott (G. W.).

ENGLISH LANGUAGE AND RHETORIC.

Class 1.

Nutter (Prize). Woodley.

Class 11.

Macmillan, Jackson, Newson. Weinfeld, Perley, Horsfall, Rorke, Stewart (D) Grier,

Class 111.

Ainley, Cooke, Holman, DeWitt, Lee, Scott (G. W.), Ells, Millar. Lundie,

Marcuse, Lee, Elder, Munroe (W.), Powell, Cochrane, McGregor, Masson, Hardy, Scott (H.E.)

Class I.

Class 11.

Seifert, Cohen, MacKinnon, Rowell, Crack, Clarke, Horsfall, Coone, Crowell, Grier, Lamb, Cooke, Woodley, Lloyd.

Class III.

Bailey, Crabb, Hamilton, Hicks, Secord, Wiggins, Stewart. Miller, Greene, Jeakins, DeWitt, Ainsley, Millson, Millar, Vickery, Ritchie.

Cohen, Dey, Garlick, Ritchie, Weinfeld. Crowell, Dixon, Jackson, Lundie, Johnson, McGregor, Rowell.

Class 11.

Class 1.

Elder, McKinnon, MacMillan, Reford, Crack, Ells, Holman, Rorke, Smith, Walker.

Class III.

Brooks, Perley. 1

# GERMAN.

Class I. Dey.

Class II.

Ferguson, Forbes.

#### HEBREW.

Class I. Hardy, C. A. (Prize)

Class 11. Laverie (Mor.)

Class III. Swinton, J, Turkington.

# THIRI

2 Class 1.

Nutter.

Class II.

Newson Grier, Marcuse

Class 111

Ainley, Horsfall, Reford.

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Class 1. Woodley,

Marcuse, Reford.

Class 11.

Rorke.

# THIRD YEAR.

# SECOND YEAR.

ZOOLOGY.

Class 1.

Nutter.

Class II. Newson, Grier, Marcuse.

Class 111.

Ainley, Horsfall, Poford,

BOTANY.

Class 1.

Woodley, Marcuse, Reford.

Class 11.

Rorke.

Class 1. Sterns, McEwen, Barrington, Williams, Copeman, McNaughton, Strong, Dickson, Cotton, Brown, E. Class II. Harper, McLeod,

McDonald, Lochead, Pearson, B. A., Chipman, Jordan, B. A., Brown, A.,

### Class III.

Reid, A. S. (Mor.) Lindsay, McPherson, Tatley, B. A., } Charters, Hickson, Moffatt, Mount, Scrimger, C., Nicholson (Mor.) Mitchell, Faller, Tees, Carruthers,

Barrington, Copeman, Brown, E. O., Bennett, Dickson, McNaughton, Class II. McDonald, Cotton, Molson, E., } Strong, Page, Harper, Lochead, Lindsay, Radford, McLeod, Smith (Mor.) Huxtable, Chipman, Moffatt, McPherson, Stephens, Tees. Class III. Budden, J. M., } Reid (Mor.), } Mount, Brown. A. V.,

Boulter, Budden, E. M. Hickson, ] Mitchell, J White, Viner, McCormick, } Clogg, Ross, Scrimger, Scrimger, Nicholson (Mor.) Fraser (Mor.) Fuller, Carruthers, Mowatt, Charters Charters,

Molson.

Prize)

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GREEK.

# LATIN.

Class 1.

Sterns,

McEwen, Williams,

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# SECOND YEAR.

GEOMETRY AND ARITHMETIC. Class 1. Sterns, Barrington, Brown (E O.), McMurtry (C.), Strong, Dickson, Smith (Kor.) Williams, Cotton, McLeod, McEwan, Tees, Nicholson (Mor.) Reid (Mor.) Molson (P.), Harper, McDonald, McNaughton. Class11. Brown (A. V.), Lochead, Pagn, Copeman, McMurtry (G), Bennett Fraser (Mor.) McPherson, Scott, Scrimger, McCormick, Charters, Parker, Fuller, Hickson, Molson (E.). Class III. Brodie, Lindsay Mitchell, Ross, Viner, Boulter, Cole, Irving, Moffatt, Mowatt, Stephens, Radford, Budden (E.), Huxtable, Anderson Ritchie (Mor.) Chipman, White, Mount.

TRIGONOMETRY AND ALGEBRA. Class 1. Sterns, Molson (E.) Class II. McEwen, Bennett, Molson (P.), Brown (E. ().), McPherson, Strong, Fraser (Mor.) Viner, <sup>3</sup> Smith (Mor) MacNaughton, Dickson, Williams, Barrington, Tees. Class III. Cotton, Harper, Huxtable, Nicholson (Mor McLeod, McMurtry (G.), Copeman, Budden (J.), Mitchell, Budden (E.), Lochead, McDonald, McMurtry (S.), Ritchie (Mor.) Scrimger, Page, Boulter, Ireland (A.), McCormick. Radford, Reid (Mor.) Lindsay, Chipman, Brown (A. V.) Mof att, Mount, Hickson, Brodie, Stephens, Fuller, Irving, Scott.

Lochead, Williams, Tees, Molson (P.), Bennett, Hickson, Class 11. Radford, Molson (E), Fuller, Hamilton, Dickson, Bickerdike, Cotton, MacLeod (A. V.), Viner, Scrimger Budden (E. M.), Strong, Brown (E. O.), Lindsay, Sawyer, Irving. Class III. Ross. Sutcliffe, Harper, Brown (A. V.), McDonald, McMurtry (G. O.) Clarke, McMurtry (S. O.) Willis, Copeman, Brodie, Charters, Coone, Page, Budden (J. M.), Kaine, Mathieson, Greenaway, Mowatt, Day, Moffatt, Swinton, Barrington, Green, Lloyd. Stephens.

LOGIC.

Class 1.

Sterns,

Chipman,

MacNaughton,

Honours in Mathematics. BARRINGTON.—First Rank

and Prize.

STERNS.—First Rank and Prize. BROWN, E. O.—Second Rank. Class Beni Dixc Radi Tees, Page Willi Cope McDo McEw MacN Molso Stephe Strong Nichol Smith Reid (A

Class II Budden McMurt Budden Chipma McPhers Molson ( Ross, Cotton, Fraser (A Ritchie (4)

Class III.

Huxtable, Barringto Cole, Fuller. Harper, Willis, Charters, Day, Ireland, McCormick, Motfatt, Mowat, Scrimger, Viner, Bickerdike, Boulter, Parker, White. Brodie, McMurtry, (S Scott, (W. J.)

# GERMAN.

# FRENCH.

Class 1. Bennet, Dixon, Radford, Tees, Page, Williams, McDonald, McEwen, MacNaughton, Molson (Evelyn), Stephens, Strong, Nicholson (Mor.) Smith (Mor.)

# Class 11.

Budden (E. M.), McMurtry, (G. U.), Budden (J M.), Chipman, McPherson, Molson (P.), Ross, Cotton, Fraser (Mor.) Ritchie (Mor.)

# Class III.

Huxtable, Barrington, Cole, Fuller, Harper, Willis, Charters, Day, Ireland, McCormick, Moffatt, Mowat, Scrimger, Viner, Bickerdike, Boulter, Parker, White. Brodie, McMurtry, (S. 0.) Scott, (W. J.)

# Class I. Sterns, Mitchell.

Class II. Brown, Lochead.

Class III.

# Ross. .

IN PLACE OF GREEK. Class III.

Stephens,

Boulter.

(DONALDA DEPARTMENT.) Class I. Page, Bennett, Budden (J.) Molson.

Class II. Radford, Willis, Plimsoll.

Huxtable.

Class III. Budden (E.)

Bickerdike.

# MORRIN COLLEGE.

SPECIAL EXAMINATION. Class II.

Smith, Fraser. HEBREW.

Class. 1.

McLeod (Prize).

Class 11.

MacInnes, Lapointe.

Class 111.

Brown, Lindsay, Anderson, Mount, Irving, Carruthers.

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# SECOND YEAR. MODERN HISTORY.

# BOTANY.

Class 1. McLeod, McNaughton, Page, Fuller, Tees, Williams, Dickson

Class II. Radford, Bennett, Cotton, Molson, Budden, Carruthers, Copeman, Brodie, Bickerdike, McDonald, Harper, Charters, McMurtry (S. O.)

Class 111. Molsor, Moffatt, Budden, Ireland, Scrimger, McMuriry, (G. O.) Irving, Lindsay, Huxtable, Brown, Cole, Hickson, Stephens, Scott, Willis, Mowatt, Parker, Swinton, McCormick.

Sterns Prize Cotton Prize Harper, McDonald, Molson, P. Ross, Williams, Lochead, McEwen, Chipman, Hickson, Barrington, Carruthers, McLeod, MacNaughton, Copeman.

Class II.

Class I.

Brown (A. V.), McPherson, Smith (Mor.) Bickerdike, Dickson, Moffatt, Willis, Budden (E. M.), Radford, Mitehell, Viner, Molson (E.), Stroug, Bennett, Tees, Page, Ritchie (Mor.). Brown (E. O.), McMartry (S. O.), Huxtable. Mount, McCormick, Budden (J. M.), F · ller, Lindsay, Nicholson (Mor.), Irving, Stephens, Greenaway, Scrimger, Charters, Parker, White, Boulter, Cole, Fraser (Mor.), McMurtry (G. O.), Brodie, Swinton.

Class III.

GR Class I.

Munn (W.) Carlyle, Muir, Crowall,

Warriner, Class II.

Fox, Smith, Miller, Jack, Harris,

Class III.

McDonald, Cole, Price, Carson, Wright, Munn (E), ( Ascah, Blagrave, Adams.

# FIRST YEAR. LATIN.

Class 1.

GREEK.

Class I.

Munn (W.), Carlyle, Muir, Crowall, Warriner,

Class II.

), )

Fox, Smith, Miller, Jack, Harris,

Class III.

McDonald, Cole, Price, Carson, Wright, Munn (E), (Mor.) Ascah, Blagrave, Adams.

Crowell, Carlyle, Munn, Smith, Muir, Murphy, Miller (Mor.) Harris, Dixon, Irving. Class II. Fox, Nolan, Astle, Ellison (A.), McDonald, Troop, Munn (Mor.) Gibsone (Mor.) Hitchcock, Jack, McLachlan, Greenleese, Pruyn, Ogilvie, Warriner, Eaton.

Class III.

Cole, Brown, Adams, Price, Wright, Ascah, Baillie, Crothers, Kinnear (Mor. Fortier, Carson, Blagrave, Schrag, Fyles (Mor.) GEOMETRY AND ARITH-METIC.

# Class 1.,

Munn W., McDonald, Crowell, Carlyle,

Class II.

Muir, Murphy, Astle, Harris, Miller (Mor.) Pruyn, Dixon, Irving, Fox, McLachlan, Smith, Fyles (Mor.) Jack, Boright, Munn E. (Mor.) Ellison A., Hitchcock,

Class 111.

Nolan, Cole, ) Price, } Blagrave, Blagrave, Consolved Andrews, Carson, Car

TRIGONOMETRY AND	PHYSICS.	ENGLISH LITERATURE
ALGEBRA.	Class I.	AND PISTORY.
Class 1.	01488 1.	Class I.
	Boright,	
Munn (W.),	Dixon,	Irving, }
Crowell, Carlyle,	Harris, Munn,	Munn, j Dixon,
Harris.	Carlyle,	Laughlin,
Pruyn, }	McLachlan,	Carlyle,
Miller,	Ascab,	Astle,
McDonald,	Astle,	Hitchcock,
Class II.	Blagrave, Ellison (A. A.),	Carson, } Plant, }
	Irving (E.),	McLachlan, )
Jack,	Nolan,	Prowse,
Price, ∫ Murphy,	Plant, Pruyn,	Smith.
Hitchcock.	Smith (M. G.).	Class 11.
Class III.	Class 11.	Jack,
Musin )	0	Cole,
Muir, ) Boright, (	Carson, Murphy,	Murphy, Adams,
Ellison,	Adams,	Schrag,
Fox,	Browne (H. D.),	Lamb,
Cole, Adams,	Cole, Crowell,	McDougall, }
Smith,	Fox,	Pruyn, Warriner,
Ascah,	Hitchcock,	Price,
Nolan, } Fyles ( <i>Mor</i> .)	Jack,	Browne,
Carson,	Warriner,	Croweli, Muir,
McLachlan, }	Class III.	Ellison, )
Dixon,		Troop,
Wotherspoon, Astle,	Andrews,	Nolan.
Baillie,	Eaton, Fortier,	Class 111.
Warriner,	Muir,	
Blagrave,	Price,	Greenleese,
Irving, Gibsone (Mor.)	Schrag, Crothers,	Harris, Ogilvie,
Dempsey,	Wotherspoon,	Fox,
Ogilvie	Donnelly.	Kingsley,
Munn (E) (Mor.) Eaton,		Wright,
Schrag.		Boright, Fortier,
		Robertson,
		Wilson.
	tion in Mathematics-F	
CROWELL, (Prize).	ASTLE, (Prize).	MUNN, (Prize).

L. DENIS..... B. E. WILEY.....

LENA REID....... MARY DEY.....

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# FIRST YEAR.

# FRENCH.

Class 1.

# Class I.

Class II.

Plant, McLachlan.

Astle, Hitchcock,

GERMAN.

Plant. Class II. Ellison, ] Dixon, ]

Ellison, Dixon, Crowell, Muir, Munn, Murphy, Rainey.

Irving. Class III.

Class 111.

Astle, Cole, MacDonald, Pruyn, MacDougall, Warriner, Wotherspoon, Greenleese, Andrews Boright, Browne, Irving, Nolan, Ogilvie, Adams, Baillie, Crothers, Des Aulniers, Fortier. Greenleese, Kingsley.

# PHYSICAL CULTURE.

# Wicksteed Medals.

L.	DENIS	4th Year Applied Science, Silver
В.	E. WILEY	2nd Year Medicine, Bronze

# Donalda Prizes.

LENA	REID	Year	Arts,	Prize
MARY	Dev 3rd	Year	Arts,	Prize

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ATURE Y.

# FACULTY OF APPLIED SCIENCE.

#### GRADUATING CLASS 1899.

ARCHIBALD, ERNEST MATTHEW.—Honours in Experimental Physics, Hydraulics, Hydraulic Laboratory Work, Electrical Engineering (Electric Lighting, A. C. Machinery), Electrical Laboratory Work.

BLAYLOCK, SELWYN GWILLYM.—2nd Carlyle Prize of \$50; Honours in Geology (Advanced), Metallurgy and Assaying (Theoretical).

BURGESS, R. EARL -Honours in Hydraulic Laboratory Work.

COLPITTS, WALTER WILLIAM.— British Association Medal and Prize; Prize for Summer Thesis; Honours in Graphical Statics, Theory of Structures, Designing, Hydraulics and Hydraulic Machinery, Geodesy and Geodetic Laboratory Work.

DARGAVEL, JAMES SAWTELL .- Honours in Thermodynamics.

DENIS, LEOPOLD.—Honours in Electrical Laboratory Work, Wicksteed Medal for Physical Culture.

FEATHERSTONHAJGH, EDWARD PHILLIPS.—Honours in Electrical Engineering(Electric Lighting, A. C. Machinery) and Electrical Laboratory Work.

FRASER, CHARLES EDWARD.-Honours in Testing Laboratory Work.

GOUGH, RICHARD THOMAS .-- HONOURS in Testing Laboratory Work.

- GRIER, ARTHUR GORDON.—British Association Medal and Prize; Honours in Experimental Physics, Hydraulics and Hydraulic Machine, Machine Design, Dynamics of Machinery, Thermodynamics, Electrical Engineering (Electric Lighting, A. C. Machinery), and Electrical Laboratory Work.
- dutchinson, William Scott.—British Association Medal and Prize; Honours in Theoretical and Practical Chemistry and in Mineralogy.
- HYDE, GEORGE TAYLOR.-Second Taylor Prize for Summer Thesis.
- KIRKPATRICK, STAFFORD FREDERICK.—British Association Medal and Prize; 1st Carlyle Prize of \$100; Honours fin Geology(Advanced), Metallurgy, Assaying (Theoretical). Mining and Metallurgical Laboratory Work, and Ore Dressing.

MCLEA, ERNEST HOPE.—Honours in Electrical Engineering (A. C. Machinery).

McLEAN, WILLIAM BROWN.—British Association Medal and Prize; British Association Exhibition; McFee Prize for Summer Thesis; Honours in Dynamics of Machinery, Machine; Design, Thermodynamics, Hydraulics and Hydraulic Machinery, Mechanical Engineering Laboratory Work and Hydraulic Laboratory Work.

McLEOD, NORMAN.-First Taylor Prize for Summer Thesis.

MORGAN CHARLES BIRD.—The Fraser and Chalmers Prize and Honours for Mining Laboratory Work.

PEDEN, FRANK.-Honours in Cement Testing Laboratory Work.

PITCHER, NORMAN CHARLES.-Honours in Metallurgy and Ore Dressing.

PRESTON JOHN.-WILSON, ROBERT Electric: trical La YOUNG, WILLIAM Laborate YUILE, NORMAN M

Allen, Samuel J.-Anglin, James P.-Black, Thompson, Byers, Archibald J Ewart, George R.ing and Ra Gillean, R. Hamps Geology. Nelson, George J.ery. Percy, Howard M.-Shepherd, Harry L.-Drawing. Walker, Frank W.-

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Ewart, Byers, . Burgoyi Corrive

Allan, S. Nelson, ( Duncan, Miller, A \*Black, T Montgom \*St. Geor Glassco, ( Fraser, Ju

\* To pass Supplemental 1

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PRESTON JOHN .- Honours in Mining and Designing.

WILSON, ROBERT MANSON.-Greenshields Prize for Summer Thesis; Honours in Electrical Engineering (Electric Lighting, Electric Railways), and Electrical Laboratory Work.

YOUNG, WILLIAM MCGIE.—Honours in Dynamics of Machinery and Hydraulic Laboratory Work.

YUILE, NORMAN McLEOD. - Honours in Metallurgy and Assaying (theoretical).

# THIRD YEAR.

Aller, Samuel J.—Prizes in Electro-Magnetism and Graphical Statics.
Anglin, James PMcCarthy Prize for Surveying Field Work.
Black, Thompson, TBritish Columbia Graduates' Society Prize.
Byers, Archibald JPrizes in Municipal Work.
Ewart, George RMcCarthy Prize for Surveying Fieldwork ; Prizes in Survey-
ing and Railway Work.
Gillean, R. Hampson.—Prizes in Metallurgy, Determinative Mineralogy and Geology.
0
Nelson, George J.—Prizes in Theory of Structures and Direct Current Machin- ery.
Percy, Howard MPrize for Machine Design.
Shepherd, Harry LPrizes in Mathematics, Thermodynamics and Mechanical Drawing.
Walker, Frank WPrize in Dynamics of Machinery.

# PASSED IN THE PRIMARY EXAMINATIONS.

### (In Order of Merit).

CIVIL ENGINEERING.

Ewart, George R., Kilauea, Kanai, Hawaiian Islands. Byers, Archibald F., Gananoque, Ont. Burgoyne, Stanley J., Halifax, N.S. Corriveau, Raoul de B., Iberville, Que.

#### ELECTRICAL ENGINEERING.

Allan, Samuel J., Maitland, N.S. Nelson, George J., Montreal, Que. Duncan, G. Rupert, Montreal, Que. Miller, Angus K., Bridgeburg, Ont. \*Black, Thompson T., Sackville, N.B. Montgomery, George, Morrisburg, Ont. \*St. George, Harry L., Montreal, Que. Glassco, Jack G., Hamilton, Ont Fraser, John W., Charlottetown, P.E.I.

\* To pass Supplemental Examination.

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Geology

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Mining

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# MECHANICAL ENGINEERING.

Shepherd, Harry L., Brockville, Ont. Walker, Frank W., Montreal, Que. Hamilton, George M., Peterboro, Ont. Percy, Howard M., Montreal, Que. Neville, Thomas .P. J., Halifax, N.S. Arkley, Lorne M., East Angus, Que. Macmaster, Arthur W., Montreal, Que. Osborne, J. Ewart, Toronto, Ont. \*Smith, George B., Stratford, Ont.

#### MINING ENGINEERING.

Gillean, R. Hampson, Montreal, Que. Buffett. Aaron F., Grand Bank, Newfoundland. Corriveau, Raoul de B., Iberville, Que. Robertson, Philip W. K., Mexico City, Mexico. Cowans, Frederick, Montreal, Que. •Moore, Ernest V., Peterboro, Ont. •Buchanan, Fitzherbert P., Montreal, Que.

PRACTICAL CHEMISTRY.

\*Barber, Rene R., Georgetown, Ont.

### SECOND YEAR.

Archer, Augustus R.—Prize fo: Mapping. Burson, Herbert A.—Prizes in Kinematics and Descriptive Geometry. Clement, S. B.—Prizes in Physics and Surveying. Scott Prize of \$25. DeBlois, Wm. H.—Prize for Chemical Laboratory Work. Edwards, Wm.—Prizes in Mathematics and Physics. Fraser, D. C.—Prize for Chemical Laboratory Work. McKenzie, Bertram S.—Scott Exh<sup>3</sup>bitien. Taylor, Charles W.—Scott Prize of \$15. Ward, Percy W.—Prize for Mechanical Drawing.

### PASSED THE SESSIONAL EXAMINATIONS.

(In Order in Merit.)

#### CIVIL ENGINEERING.

Clement, Sheldon B., Clinton, Ont. Blanchard, Arthur C. D., Windsor, N.S. \*Gagnon, Edmund E., Montreal, Que.

ELECTRICAL ENGINEERING.

Burson, Herbert A., St. Catharines, Ont. Fleming, James M., Halifax, N.S. McLaren, John H., Montreal, Que. Ward, Percy W., Lachine, Que.

\* To pass Supplemental Examination.

•Hi Fry \*Wi Sec Can "Han \*Low \*Pyk \*Wak Arch Pater Edwa Fraser **DeBlo** Wilsor \*McKen Palmei Freche • White, •Flint, V \*Tupper, \*Ritchie, \*Blue, Al \*Ogilvie, \*Galbrait

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Labatt, J \*Jamieson

Barwick, William S.—Hute Campbell, Charles McK.— Corless, Charles V.—Prizes English and Mathe Dale-Harris, Spencer.—2nd Hicks, Thomas N.—2nd Fle Ralph, Claude E.—Ottawa V Robertson, John F.—Prizes 1 Smith, J. Macdonald.—1st F Sterns, Frank E.—Hutchison Prize, Prize for Desc

\* To pass Supplemental Exan

Taylor, Charles W., Richwood, Ont. •Glassco, Archie P. S., Hamilton, Ont. Lloyd, Herbert M., New Westminster, B.C. •Higman, Ormond, Ottawa, Ont.

MECHANICAL ENGINEERING. Fry, David M., Bright, Ont. \*Wilson, Reginald C., Cumberland, Ont. Scott, Henry M., Montreal, Que. Cameron, Hugh D., Montreal, Que. Hampson, E. Greville, Montreal, Que. \*Lowden, Warden K., Montreal, Que. \*Pyke, Gordon McT., Montreal, Que. \*Wakeling, Otty S., St. John, N.B.

MINING ENGINEERING. Archer, Augustus R., New York, U.S.A. Paterson, Charles S., Montreal, Que. Edwards, William M., Ottawa, Ont. Fraser, Donald C., New Glasgow, N.S. DeBlois, William H., Halifax, N.S. Wilson, Thomas A., Halifax, N.S.

\*McKenzie, Bertram S., London, Ont. Palmer, Ernest E., Toronto, Ont. Frechette, Howells, Ottawa, Ont.

\*White, Gerald V., Pembroke, Ont. \*Flint, William G., Montreal, Que.

\*Tupper, Charles, Vancouver, B.C.

\*Ritchie, Joseph N., Halifax, N.S.

\*Blue, Allan P., Eustis, Que.

\*Ogilvie, Paul, Cummings Bridge, Ont.

\*Galbraith, Malcolm T., Montreal, Que.

PRACTICAL CHEMISTRY.

Labatt, John S., London, Ont. \*Jamieson, George E. T., Montreal, Que.

# FIRST YEAR.

Barwick, William S.—Hutchison Prize for Freehand Drawing. Campbell, Charles McK.—Hutchison Prize for Freehand Drawing.

Corless, Charles V.—Prizes for Descriptive Geometry, Descriptive Mechanism, English and Mathematics.

Dale-Harris, Spencer.-2nd Fleet Workshop Prize.

licks, Thomas N.-2nd Fleet Workshop Prize.

Balph, Claude E.-Ottawa Valley Graduates' Society Entrance Prize.

Robertson, John F .- Prizes for Chemistry, Practical Chemistry and Mathematics.

Smith, J. Macdonald .- 1st Fleet Workshop Prize.

Sterns, Frank E.-Hutchison Prize for Freehand Drawing, 3rd Fleet Workshop Prize, Prize for Descriptive Geometry.

\* To pass Supplemental Examination.

#### PASSED THE SESSIONAL EXAMINATIONS.

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#### (In Order of Merit.)

Corless, Charles V., New Durham, Ont Robertson, John F., Charlottetown, P.E.I. Sterns, Frank E., Morell, P.E.I. De Pencier, Henry P., Vancouver, B.C. Dutcher, Howard K., Charlottetown, P.E.I. Hicks, Thomas N., Perth, Ont. Barwick, William S., Barrie, Ont. Smith, J. Macdonald, Petitcodiac, N.B. Smith, Gerald, St. Johns, Que. Addie, Thomas H., Sherbrooke, Que. Murphy, William E., Shelburne, N.S. Dunfield, John C. W., St. Johns, Newfoundland. Bigger, Howell, Ottawa, Ont. McBride, Wilbert G., Ing'ewood, Ont. Campbell, Charles McK., Winnipeg, Man. \*Ralph, Claude E., Ottawa, Ont. Jackson, Philip T., Toronto, Ont. Mackay, Eric, St. Johns, Newfoundland. \*Coulson, John D., Toronto, Ont. \*Myers, Archie J., Listowell, Ont. \*Weagant, Roy A., Derby Line, Vt., U.S.A. Dupuis, Albert, Montreal, Que. \*Maclaren, Francis H., Huntingdon, Que. \*Newton, Samuel R., Drummondville, Que. \*Pratt. Stephen S., Cranbrook, B.C. \*Baird, Alexander, Sherbrooke, Que. \*Pearson, Hartley M., Huntingdon, Que. \*Edgar John H., Montreal, Que.

### MEDALS (GOVERNOR GENERAL'S) AWARDED FOR GRADUATE RESEARCH WORK.

Aberdeen Medal to Howard T. Barnes, M.A.Sc. Minto Medal to Tom Percival Strickland, B.Sc., B.A.Sc.

> STANDING IN THE SEVERAL SUBJECTS. ALTERNATING CURRENT WORK.

FOURTH YEAR.—Class 1.—Archibald, Grier, Fetherstonhaugh and McLea, equal. Class 11.—Denis and Shaw, equal. Class 111—Hyde (J. C.), Wilson (R. M.), Fraser (J. W.), Fraser (H.), Bowman, Burgess.

#### ANALYSIS, QUALITATIVE.

SECOND YEAR.—Class I.—DeBlois and Fraser, equal; Patrson, Ritchie, Class II.—Cochrane; Archer and Blue and Edwards, equal; McKenzie Wilson, Jamieson, Burchell; Reynolds and White, equal; Lubatt, Ogilvie, Tupper, Galbraith. Class III.—Flint, Frechette, Wells, Palmer

\* To pass Supplemental Examination

THIRD YEAR.-Cle Corriveau 111.-Don

SECOND YEAR. -- Cl Hutchings

FOURTH YEAR. -- Ch -- McLeod

FOURTH YEAR.-Cla III.-Pede

THIRD YEAR.—Class SECOND YEAR.—(Divi Hutchings (( Blanchard, V

SECOND YEAR. - Class

FOURTH YEAR. - Class 11.-Peden.

FOURTH YEAR. --- Class bell (N. M.). Stevens, Moor

SECOND YEAR. - Class 1

SECOND YEAR.—(Pract Labatt, Jamiess FIRST YEAR.—Class I— De Pencier, Dun (G.,) Câmpbell Pearson, Jackson Porter, equal; J

FOURTH YEAR. - Class 1 .-

SECOND YEAR. - Class II.

THIRD YEAR.—Class I.—Howard, Gillean, Robertson; Barber and Buffett and Corriveau and Taylor, equal. Class II.—Moore, Cary, Cowans. Class III.—Donaldson, Maclaren, Buchanan.

ARCHITECTURAL DRAWING.

SECOND YEAR. -Class 1.-None. Class 11.-Hutchings (G. H.). Class 111.-Hutchings (S.C.), Watson (R. G.).

#### ARCHITECTURAL DESIGN (SESSIONAL WORK).

FOURTH YEAR. - Class I.-None. Class II.-Hyde (G. T.), Staveley. Class III. -McLeod and Peden, equal.

#### ARCHITECTURE.

FOURTH YEAR.—Class I.—Hyde (G. T.). Class II.—Staveley, McLeod Class III.—Peden.

ARCHITECTURE, HISTORY OF.

THIRD YEAR.-Class I.-None. Class II.-Coote.

SECOND YEAR.—(Division A.).—Class 1.—None. Class 11.—Hutchings (S. C.), Hutchings (G. H.). Division B.—Class I.—None. Class 11.—Clement, Blanchard, Wilson (T. A.). Class 111.—Gagnon (E. E.).

ARCHITECTURE, THEORY OF.

SECOND YEAR.-Class I.-None. Class II.-Hutchings (G. H.).

ART HISTORY.

FOURTH YEAR. - Class I.-Staveley, Hyde (G. T.) and McLeod (N.M.) equal. Class II.-Peden.

### ASSAY THEORY.

FOURTH YEAR. --- Class I.-Blaylock, Kirkpatrick, Yuile, Pitcher, Preston, Campbell (N. M.). Class II.--- MacIunes, Waller, Morgan. -- Class III. ---Stevens, Moore.

### ADUATE

#### BOTANY. SECOND YEAR.-Class 1.--Labatt.

#### CHEMISTRY.

SECOND YEAR.—(Practical Chemistry Course).—Class I.—None. Class II.— Labatt, Jamieson.

 FIRST YEAR.—Class I—Robertson (J. F.), Corless, Sterns, Dutcher. Class II.—
 De Pencier, Dunfield, Edgar, Barwick, McBride, Hicks, Weagant, Smith (G.,) Campbell (C. M.). Class III.—Addie and Smith (J. M.), equal; Pearson, Jackson, Pratt, Dupuis, Murphy, Mackay, Co ulson; Bigger and Porter, equal; Johnston, Maclaren (F. H.); Baird and Horsfall, equal.

CHEMISTRY, INORGANIC.

FOURTH VEAR. - Class 1.-Hutchinson, MacLaren (A. J.).

CHEMISTRY OF THE METALS.

SECOND YEAR.-Class II.-Labatt, Jamieson.

McLea, equal. C.), Wilson

rson, Ritchie, l; McKenzie, ual; Lubatt, Vells, Palmer

#### CHEMISTRY, ORGANIC.

# FOURTH YEAR,-Class I. -Hutchinson. Class II.-MacLaren (A. J.).

#### DESCRIPTIVE GEOMETRY.

THIRD YEAR.-(Civil Engineering Course). Class 1.-None. Class 11.-Ewart Class 111.-Corriveau, Byers, Burgoyne.

- SECOND YEAR.—Class I.—Burson, Wilson (P. A.) Class II.—Clement and McLaren (J.), equil; Archer, Fraser (D. C.), Scott (H. E.), Fry, Ward (P. W.), Blanchard; Frechette and Higman, equal; Edwards and Scott (H. M.) and Wilson (R. C.), equal; DeBlois. Class III.—Lloyd, Palmer, McKepzie, Cameron; Burchell and Gagnon (E. E.), equal; Flint and Taylor (C. W.), equal; Ritchie and Wakeling, equal; Lowden.
- FIRST YEAR.—Class I.—Corless and Sterns, equal; De Pencier and Dutcher and Robertson (J. F), equal; Barwick, Addie; Hicks and Smith (J. M.) equal; Baird; Campbell and Sm th (G.), equal; Bigger and Dunfield and Murphy, equal; Pratt. Class II.—Jackson and Myers and Newton, equal; Hutchings (G. H.), Ralph; Maclaren (F. H.) and McBride, equal; Weagant, Hutchings (S. C.); Beck and Labelle and Lawrence equal; Mackay; Pearson and Whitley, equal; Poster. Class III—Coulson; Dupuis and Peck, equal; Meldrum, Mitchell.

#### DESCRIPTIVE MECHANISM.

FIRST YEAR.—Class 11—.Corless, Sterns, Robertson (J. F.), Dunfield; McBride and Smith (J. M.), equal; De Pencier, Dutcher. Class 11.—Dupuis, Weagant, Pratt, Mathers, Smith (G); Hicks and Lawrence, equal: Horsfall, Labelle; Bigger and Jackson, equal. Class 111.—Lockerby: Baird and Mitchell and Whitlev, equal; Ralph, Newton, Johnston (F. H.), and Maclaren, equal; Peck and Sewell, equal; Barwick aud Beck. equal; Pearson: Murphy and Meldrum, equal; Cape and-Coulson, equal; Addie, Kerr, Mackay, Campbell (C. M.).

#### DESIGNING.

FOURTH YEAR.—(Civil Engineering Course.)—Class I.—Colpitts. Class II.—Gough, Fraser (C. E.), Gagnon (L. F.), Van Horne. Class III.—Bachand. (Mechanical Engineering Course.)—Class I.—McLean, Young, Whyte J. S.). Class II.—Wenger Durgavel, Davidson, Hickey. Class III.—Ewan, Gisborne, Yorston. (Mining Engineering Course.)—Class I.—Preston. Class II.—Morgan, Campbell (N. M.), and Yuile, equal; Blaylock and Pitcher and Kirkpatrick, equal. Class III.—MacInnes, Moore, Waller.

THIRD YEAR.-(Architectural Course.)--Class I.-None. Class II.-Coote.

- THIRD YKAR.—Civil Engineering Course.—Class I.—Corriveau, Burgoyne; Byers and Ewart. equal. Class II.—None. Class III.—Anglin.
- SECOND YEAR.-(Architectural Course). Class I.-None. Class II.-Hutchings (G. H)

#### DETERMINATIVE MINERALOGY.

THIRD YEAR.—Class I.—Gillean, Howard (L. O.), Corriveau. Class II.—Barber, Cowans (F.), Buffett, Moore (E. V.), Robertson (P. W. K.), Donaldson Cary.

Passed special examination. Class III.- Buchanan (F. P.).

FOURTH YEAR Fethe Class Burge THIRD YEAR.-Dunca Fraser

FOURTH YEAR. --(E. M.) Shaw; Burgess Enginee Class I Austin & THIRD YEAR. -- Cl Arkley, 1 Glassco ( Percy, FC

FOURTH YEAR.— C Fetherston II.—Bown (H.). Class

FOURTH YEAR. - Cl. Archibald and Grier

THIED YEAR.—Class Glassco (J. ( and St. Geor

FIRST YEAR. — Class 1 Robertson (J. Murphy, equa Horsfall, equ. (S. C.), Newto and Mackay, Jackson; Mac (G. H.), Cape,

### DIRECT CURRENT DYNAMO WORK.

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- FOURTH YEAR.—Class I.—None. Class II.—Hyde (J. C.); Archibald and Fetherstonhaugh, equal; Wilson (R. M).; Grier and Shaw, equal. Class III.—Denis ard Fraser (J. W.) and McLea, equal; Fraser (H.) Burgess, Bowman.
- THIRD YEAR.—Class I.—Nelson. Class II.—Allen. Class III.—Black and Duncan and Miller (A. K.), equal; Montgomery, St. George, Forman Fraser (John W.), Glassco (J. G.).

#### DYNAMICS OF MACHINERY.

- FOURTH YEAR. (Electrical Fingineering Course). Class I. Grier; Archibald (E. M.) and Fetherstonhaugh, equal. Class II. Hyde (J. C.), Bowman, Shaw; Denis and Wilson (R. M.), equal; Fraser (J. W.). Class III. Burgess, Pergau, Fraser (H.) and McLea, equal; Hawker. (Mechanical Engineering Course) Class I. McLean (W. B.), Young, Dargavel. Class II. Wenger, Davidson, Whyte (J. S.). Class III. Hickey; Austin and Gisborne, equal; Ewan, Yorston.
- THIRD YEAR.—Class 1.—Walker; Allen and Neville, equal; Nelson. Class 11.— Arkley, Macmaster, Shepherd, Hamilton, Miller (A. K.), Black, Duncan, Glassco (J G.). Class 111.—St. George, Montgomery, Osborne, Sise, Percy, Forman, Fraser (John W.).

### ELECTRIC LIGHTING.

FOURTH YEAR.—Class I.—Wilson (B. M.), Archibald, Shaw, Hyde (J. C.);
 Fetherstonhaugh and Grier, equal; Burgess and Denis, equal. Class
 II.—Bowman; Fraser (J. W.) and Hawker and Pergau, equal; Fraser (H.). Class III.—McLea.

#### ELECTRIC RAILWAYS.

FOURTH YEAR. – Class I. – Wilson (R. M.); Fetherstonhaugh and Shaw, equal; Archibald and Hyde (J. C.) equal. Class II. – Denis and Fraser (J. W. and Grier, equal; Bown an, McLea. Class III. – Burgess, Fraser (H.).

#### ELECTROMAGNETISM.

THIED YEAR.—Class I.—Allen, Nelson. Class II.—Montgomery, Miller (A.), Glassco (J. C.), Percy; Black and Forman, equal. Class III.—Duncan and St. George, equal; Fraser (John W.).

#### ENGLISH.

FIRST YEAR.—Class I.—Corless, Dutcher, DePencier, Campbell (C. M.), Sterns, Robertson (J. F.), Ralph, Dunfield. Class II.—Addie and McBride and Murphy, equal; Bigger; Hicks and Smith (G.), equal; Barwick and Horsfall, equal; Coulson, Edgar, Cushing. Class III.—Hutchings (S. C.), Newton, Lockerby; Dupuis and Pearson, equal; Baird; Pratt and Mackay, equal; Crawford and Peck and Smith (J. M.), equal; Jackson; MacLaten (F. H.) and Porter and Sewell, equal; Hutchings (G. H.), Cape, Labelle, Myers.

A. J.).

# ass 11.-Ewart

-Clement and E.), Fry, Ward wards and Scott .-Lloyd, Pal-). equal; Flint 1; Lowden. nd Dutcher and Smith (J. M.) nd Dunfield and Vewton, equal; cBride, equal; wience equal; !!!-Coulson;

> field; McBride *II.*—Dupnis, rence, equal: .—Lockerby: inston(F.H.), :k aud Beck. ind-Coulson,

> > Class II.-I.-Bachand. oung, Whyte Class III.-)-Class I.uile, equal; -MacInnes,

Coote. Burgoyne; Inglin. -Hutchings

> 1.-Barber, Donaldson

#### FREEHAND DRAWING.

FOURTH YEAR.—(Architectural Course) — Class I.—None. Class II.—Hyde (G. T.) Class III.—Peden, McLeod (N. M.), Staveley.
THIRD YEAR(Architectural Course)Class INone. Class IICoote.
SECOND YEAR.—(Architectural Course).—Class I. —None. Class II.—Hutchings (G. H.).
<ul> <li>FIRST YEAR.—Class 1.—Barwick and Campbell (C. M.) and Sterns, equal; Dutcher and Hutchings (G. H.), equal; Hutchings (S. C.); Corless, Robertson (J. F.); Baird and Bigger, equal; Labelle; Beck; Addie and DePencier and Hicks, equal; McLean (D. J.) and Pratt and Smith (C.), equal. Class 11.—Barclay and Whitley, equal; Crawford and Horsfall and Porter and Smith (J. M.), equal; Brainerd and Lawrence and McBride, equal; Myers; Edgar and Murphy and Newton, equal; Whiteway F. H. C., Jackson; Mathers and Trenholme, equal. Class 111.—Lockerby and Meldrum and Ralph and Smith (R. E.). equal; Dunfield and Weagant, equal; Cowen (E. A. A.) and Johnston and McLaren (F. H.) and Pearson, equal; Coulson and Dupuis, equal; Boyd, Onderdonk, Ward (R.); Cushing and Mackay and Sewell, equal.</li> </ul>
GEODESY.
FOURTH YEAR.—Cl 188 I.—Colpitts. Class II.—Fraser (C. E.), Corriveau, Ba- chand, Gagnon (L. F.). Class III.—Gough, Van Horné.

GEOLOGY.

- FOURTH YEAR.-(Architectural Course).-Class I.-Hyde (G. T.). Class II.-McLeod, Pedeu.
- THIRD YEAR.—*Class I.*—Gillean, Ewart. *Class II.*—Byers; Buffett and Cary, equal; Barber, Robertson P. W. K.), Cowans (F.), Howard (L.). *Class III.*—Burgoyne, Donaldson, Maclaren (G. M.), Moore (E. V.).

#### GEOLOGY (ADVANCED).

FOURTH YEAR.—Class I — Kirkpatrick, Blaylock, Campbell (N. M). Class II.— Yuile, Pitcher, MacInnes, Moore (W. A.) and Prestor, equal; Morgan. Class III.—Waller, Stevens.

#### GRAPHICAL STATICS.

- FOURTH YEAR.—Class I.—Colpitt. Class II.—Fraser (C. E.), Gough, Gagnon (L. F.). Class III.—Van Horne, Bachand.
- THIRD YEAR-Class I.-Allen and Black, equal; Walker, Hamilton (G. M.), St George. Class II.-Montgomery; Neville and Shepherd, equal; Buffett; Gillean and Miller (A. K.), equal; Burgoyne, Percy; Cowans (F.) and Macmaster and Nelson, equal; Arkley; Duncan and Smith (G. B.), equal; Byers and Moore (E. V.), equal. Class III.-Fraser (John W.), Osborne, Ewart; Buchanan (F. P.) and Glassco (J. G.) and Robertson (P. W. K), equal; Maclaren.) Corriveau and Sise, equal.

FOURTH YEAR. Archi Fethe equal 111.— Hickey (H.). Blayloc Moore, ;

FOURTH YEAR—( equal; ( (J. W.), Young; F.) and ( —Dargav and Perg

SECOND YEAR.-Cl A.), Howan McLaren (. S.), equal Lowden, C

FOURTH YEAR .- (Ass. cher. Class Morgan, Mod FOURTH YEAR.-(Cen and McLeod FOURTH YEAR.-(Che None. Class THIRD YEAR.-(Chemi Howard (L. O and Taylor (A Class III.- 1 Chemistry Cou SECOND YEAR. -(Chemic DeBlois and Fr. and Blue and E chell; Reynolds braith. Class Course).-Class.

Supplemental.

I.-Hyde (G.

Coote.

-Hutchings

equal: Dut-Corless, Ro-Addie and Smith (C.), and Horsfall ice and Mc-; Whiteway Mass 111. il; Dunfield d McLaren yd, Onder-

iveau, Ba-

Class II.-

and Cary, .). Class

Morgan.

1, Gagnon

3. M.), St d, equal; ; Cowans nd Smith !.—Fraser I. G.) and se, equal.

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#### HYDRAULICS.

FOURTH YEAR. — (Civil, Electrical and Mechanical Engineering Courses). — Class I.
Archibald, Colpitts, Grier. Class II. — McLean (W.), Fraser (C. E.), Fetherstonhaugh, Fraser (J. W.), Young; Denis and Wilson (R. M.) equal; Austin, Van Horne, Gisborne, Burgess and Shaw, equal. Class III.—Ewan, Gagnon (L. F.), Wenger, Dargavel, Gough, Bowman, Hickey, Whyte; Bachand and Davidson, equal; Hyde (J. C.), Fraser (H.). (Mining Engineering Course). Class I.—None. Class II.— Blaylock, Preston, Kirkpatrick, Yuile. Class III.—Morgan, MacInnes, Moore, Stevens, Campbell (N. M.), Nicholls, Waller, Hyde (J.), Fraser (H.)

#### HYDRAULIC MACHINERY.

FOURTH YEAR-Class I.-McLean, Fetherstonhaugh and Grier and Whyte (J.S.), equal; Colpitts and Shaw, equal; Bowman; Fraser (C. E.) and Fraser (J. W.), equal. Class II.-Archibald and Burgess and Gough, equal; Young; Hickey and Davidson, equal; Denis and Ewan and Gagnon (L. F.) and Gisborne, equal; Hyde (J. C.) and Wenger, equal. Class III.-Dargavel and Hawker, equal; Wilson (R. M.), Van Horne; Austin and Pergau, equal; Fraser (H.).

#### KINEMATICS.

SECOND YEAR.-Class 1.-Burson. Class II.-Fleming, Wakeling, Wilson (T. A.), Howard (R. T.); Higman and Ward (P. W.), equal. Class III.-McLaren (J. H.) and Taylor (C. W.), equal; Fry and Glassco (A. P. S.), equal; Hampson, Scott (H. M.), Pyke, Lloyd, Cowen (E. A. A.), Lowden, Cameron, Brecken, Boyd.

#### LABORATORY WORK.

- FOURTH YEAR.—(Assay Laboratory).—Class I.—Blaylock, MacInnes, Yuile, Pitcher. Class II.—Preston, Kirkpatrick, Waller, Campbell (N. M.), Morgan, Moore, Stevens.
- FOURTH YEAR.—(Cement Testing Laboratory).—Class I.—Peden; Hyde (G. T.) and McLeod (N. M.) and Staveley, equal.
- FOURTH YEAR.—(Chemical Laboratory).—Class I.—Hutchinson. Class II.— None. Class III.—MacLaren (A, J).
- THIRD YEAR.—(Chemical Laboratory, Mining Engineering Course).—Class I.— Howard (L. O.), Gillean, Robertson (P. W. K.); Buffett and Corriveau and Taylor (A. M.), equal. Class II.—Moore (E. V.), Cary, Cowans (F.) Class III.— Donaldson, \*Maclaren (G. M.), \*Buchanan (F. P.). Chemistry Course).—Class I.—Barber.
- SECOND YEAR.—(Chemical Laboratory, Mining Engineering Course).—Class I.— DeBlois and Fraser (D. C.), equal; Paterson, Ritchie. Class II—Archer and Blue and Edwards, equal; McKenzie (B. S.), Wilson (T. A.), Burchell; Reynolds and White (G. V.), equal; Ogitvie (P.), Tupper, Galbraith. Class III.—•Flint, Fréchette, Wells, Palmer. (Chemistry Course).—Class. I.—None. Class II.—Jamieson, Labatt.

\* Supplemental.

- FIRST YEAR.—(Chemical Laboratory).—Class I.—Robertson (J. F.), Corless, Sterns, Mackay; DePencier and Dunfield, equal; Edgar; Murphy and Barwick, equal; Dutcher; Pratt and Coulson, equal; Hicks and Weagant, equal; Pearson, Porter; Newton and Smith (J. M.), equal; Maclaren (F. H.) Smith (G.). Class II.—Addie and Bigger and Jackson and McBride, equal; Whitley, Baird; Mathers and Myers, equal; Ralph, Lockerby, Campbell (C. M.) and Dupuis, equal; Peck; Beck and Horsfall, equal; Crawford, Johnston, Brainerd. Class III.—Cape and Kerr, equal; Whiteway (F. H. C.), Sewell.
- FOURTH YEAR.—(Electrical Laboratory)—Class I.— Wilson (R. M.), Denis, Fetherstonhaugh and Grier, equal; Archibald, Show. Class II.—Hyde (J. C.), Burgess, Bowman, Fraser (J. W.), McLea. Class III—Fraser (H.) and Hawker, equal; Pergau.
- THIRD YFAR.--(Electrical Laboratory).-Class I.-Allen, Montgomery, Nelson. Class II.-Glassco (J. C); Duncan and Miller (A. K.) and Percy, equal; Black, Fraser (John W.). Class III.-Kane, Forman.
- FOURTH YEAR.—(Geodetic Laboratory).—Class I.—Colpitts, Fraser (C. E.). Class II.—Gough. Class III.—Bachand; Gagnon (L. F.) and Van Horne, equal.
- FOURTH YEAR.—(Hydraulic Laboratory),), (Civil, Mechanical and Electrical Engineering Courses)—Class 1.—Archibald, Burgess, Young, McLean (W. B.); Denis and Fraser (J. W.) and Hyde (J. C.), equal; Fetherston-haugh; Colpit's and Grier, equal; Pergau. Class 11.—Fraser (C. E.) and Shaw, equal; Davidson and Wilson (R.M.), equal; Austin; Dargavel and Gagnon (L. F.) and Gough, equal; Gisborne, Whyte (J. S.), Hawker, Bowman. Class 111.—Yorston; Ewan and Hickey, equal; Fraser (H.), Wenger, Bachand, Van Horne.
- FIRST YEAR.—(Mathematical Laboratory).—Class I.—Corless, Sterns; De Pencier and Robertson (J. F), equal: Mackay and Scott (H. E), equal: Smith (G.), Dutcher; Addie and Barwick and Ralph, equal; Maclaren (F. H.), and McBride and Murphy and Newton and Pearson, equal; Bigger; Dunfield and Hicks and Smith (J. M.) and Weagant, equal. Class II.— Myers and Pratt, equal; Campbell (C. M.) and Coulson and Lockerby and Peck, equal; Dupuis; Horsfall and Hutchings (S. C.) and Jackson and Lawrence, equal; Beck and Crawford and Mathers, equal; Cape and Whitley, equal; Baird.
- FOURTH YEAR.—(Mechanical Engineering Laboratory).—Class I.—McLean (W.
   B.); Dargavel and Young, equal. Class II.—Wenger, Whyte (J. S.)
   Davidson. Class III.—Gisborne, Yorston, Hickey, Austin, Ewan.
- FOURTH YEAR (*Mining Laboratory*).—*Class I.*—Kirkpatrick, Morgan; Blaylock and Pitcher and Preston and Yuile, equal. *Class II.*—Campbell (N. M.), McInnes, Moore (W. A.), Waller.
- FOURTH YEAR.—(Physical Laboratory.) (Electrical Engineering Course),—Class 1.
  —Grier, Archibald, Denis, Wilson (R. M.). Class 11.—Fraser (J. W.);
  Fetherstonhaugh and Shaw, equal; Burgess and Hyde (J. C.), Bowman. Class 111.—Fraser (H.)

THIRD YEAR.--Dui Class W.) SECOND YEAR.ical L Scott ( ment, E Fry and Ward ( P. S.) a Class 1 Patersor Galbrait Flint an equal; T FOURTH YEAR.-( McLeod ( Class I.-Gagnon (l THIRD YEAR. -(Tes and Burge 11.-Buffet Smith (G. 1 Moore (E. V Glassco (J. Cowans (F.

FIRST YEAR. — Class 1 Hutchings (S and Dutcher, Corless and equal; Port Newton and Lawrence, equ Dunfield and (R. E). Clas Mackay and equal; Ralph Weagant, equa

FOURTH YEAR. - (Electi (J. W.), Denis, 4 and Wilson (R. Bowman, Perga Lean, Young. 111. - Austin; D

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rless, Sterns, and Barwick, agant, equal; aren (F. H.) ad McBride, b, Lockerby, sfall, equal; err, equal;

> M.), Denis, s 11.—Hyde 111—Fraser

ry, Nelson. ercy, equal ;

L. E.). Class Van Horne,

Electrical ng, McLean Fetherstoniser (C. E.) in; Dargayte (J. S.), ey, equal;

> De Pencier tal : Smith ren (F. H.), ; Bigger ; *Dlass II.*— ! Lockerby td Jackson tal ; Cape

> > cLean (W. yte (J. S.) van. Blaylock cll (N. M.),

> > > -Class 1. (J. W.); Bowman.

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THIRD YEAR.—(Physical Laboratory.) (Electrical Engineering Course)—Class 1.
 —Duncan, Nelson, Black. Class 11.—Allen, Miller (A. K.) St. George.
 Class 111.—Howard (R. T.), Montgomery, Glassco (J. G.), Fraser (John W.)

- SECOND YEAR.—(Physical Laboratory.) (Architectural, Civil, Electrical, Mechanical Engineering Courses and Practical Chemistry Course.)—Class I.— Scott (H. M.), Scott (H. E.), Labatt; Burson and Cameron, equal; Clement, Burwell, Cowen (E. A. A.), Pyke, McLaren. Class II.—Jamieson; Fry and Gagnon (E. E.) and Hampson and Lowden and Wakeling and Ward (P. W.), equal: Fleming and Taylor (C. W.), equal; Glassco (A. P. S.) and Wilson (R. C.), equal; Brecken, Lloyd, Boyd, Schwitzer. Class III.—Higman. (Mining Engineering Course).—Cla I.—Palmer, Paterson, DeBlois, Edwards. Class II.—Archer and Fraser (D. C.) and Galbraith and White (G. V.) aud Wilson (T. A), equal; Ritchie and Flint and Ogilvie (P.), equal; Burchell, Wells; Blue and McKenzie, equal; Tupper and Frechette, equal. Class III.—Reynolds.
- FOURTH YEAR.—(Testing Laboratory.) (Architectural Course)—Class 1.—Peden McLeod (N. M.). Class 11.—Hyde (G. T.). (Civil Engineering Course). Class I.—Fraser (C. E.) and Gough, equal; Colpitts; Bachand and Gagnon (L. F.) and Van Horne, equal.
- THIRD YEAR.—(Testing Laboratory).—Class I.—Black, Shepherd, Walker; Allen and Burgoyne and Nelson, equal; Robertson (P. W. K.), Percy. Class II.—Buffett; Duncan and Gillean, equal; Neville, Fraser (John W.), Smith (G. B.), St. George; Byers and Hamilton and Montgomery, equal; Moore (E. V.) and Sise, equal; Miller (A. K.), Osborne, Buchanan (F. P.), Glassco (J. G.). Class III.—Ewart; Arkley and Macmaster, equal; Cowans (F.); Cary and Donaldson and Macmillan, equal.

#### LETTERING.

FIRST YEAR.—Class 1.—Campbell (C. M.); Addie and Baird and DePencier and Hutchings (S. C.), equal; Hutchings (G. H.) and Pratt, equal; Biggar and Dutcher, equal; Barwick and Beck and Hicks and Sterns, equal; Corless and Robertson (J. F.), equal; Edgar; Brainerd and Smith G.), equal; Porter. Class 11.—McBride and Murphy, equal; Myers and Newton and Smith (J. M.) and Whitley, equal; Dupuis; Crawford and Lawrence, equal; Sewell, McLean (D. J.); Jackson and Mathers, equal; Dunfield and Horsfall, equal; Coulson and Whiteway (F. H. C.), Smith (R. E). Class 111.—Johnson and Maclaren (F. H.), equal; Kerr and Mackay and Trenholme, equal; Cummings; Labelle and Pearson, equal; Ralph and Yuile (H.), equal; Lockerby and Ward (R.) and Weagant, equal.

#### MACHINE DESIGN.

FOURTH YEAR.-(Electrical Engineering Course.)-Class 1.-Grier, Fraser
(J. W.), Denis, Archibald. Class 11.-Shaw, Hyde (J. C.); Fraser (H.) and Wilson (R. M.). Class 111.-Burgess and Fetherstonhaugh, equal; Bowman, Pergau. (Mechanical Engineering Course.)-Class 1.-Mc-Lean, Young. Class 11.-Wenger, Dargavel, Whyte (J. S.). Class 111.-Austin; Davidson and Gisborne; Yorston, Ewan.

THIRD YBAR.—(Electrical and Mechanical Engineering Course.)—Class I.—Percy; Allen and Black, equal; Shepherd; Duncan and Hamilton and Neville and St. George and Walker, equal. Class II.—Arkley; Miller (A. K.) and Montgomery, equal; Osborne, Macmaster, Nelson, Smith (G. B.). Class III.—Fraser (J. W.), Glassco (J. G.), Forman, Sise.

#### MAPPING.

THIED YEAR.—Class 1.—None. Class 11.--Burgoyne, Anglin, Ewart, Byers.

SECOND YEAR.-(Civil Engineering Course.)-Class I.-Gagnon (E. E.). Class II.-Blanchard, Clement. (Mining Engineering Course.)-Class I.-Archer, Frechette. Class II.-Fraser (D. C.); McKenzie and Paterson, equal; Galbraith; Blue and Burchell and DeBlois and Edwards, equal; Palmer, White (G. V.). Class III.-Askwith, Ogilvie (P.), Flint; Ritchie and Tupper, equal.

#### MATHEMATICS.

- THIRD YEAR.—Class I.—Shepherd, Gillean, Allen. Class 11.—Percy, Nelson,
  Miller (A. K.), Neville, Corriveau, Buffett; Duncan and Robertson (P. W. K.), equal; Walker, Hamilton, Cowans (F.). Class III.—
  Ewart, Glassco (J. G.), Maclaren (G. M.), Arkley, Montgomery; Byers and Osborne, equal; Fraser (John W) and Moore (E. V.), equal; Smith (G. B.), Macmaster, Burgoyne, Donaldson.
- SECOND YEAR.—Class I.—Edwards, Fleming, Burson, Archer, Clement, Mc-Kenzie, Fraser (D. C.), Fry, McLaren (J.). Class II.—Paterson, Taylor (C. W.), Tupper, Glassco (A. P. S.); DeBlois and Wilson (T. A.), equal; Palmer, Ward (P. W.), White (G. V.), Blanchard, Hampson. Class III.—Frechette, Ritchie, Reynolds, Cameron, Scott (H. M.), Flint, Blue, Lloyd, \*Higman; Pyke and †Wilson (R. C.), equal; \*Ogilvie (P.); Galbraith and †Lowden, equal.
- FIRST YEAR.—Class I.—Corless, Robertson (J. F.), Sterns, DePencier, Dutcher, Scott (H. E.). Class II.—Hicks, Smith (J. M.), Murphy, Barwick, Smith (G.), Ralph, Addie, Bigger, Mackay, Jackson, Meyers, Dunfield, McBride. Class III.—‡Mathers, \*Coulson, \*Weagant; Campbell (C. M.) and Dupuis, equal; \*McLaren, \*Newton.

#### MECHANICAL DRAWING.

THIRD YEAR.—(Electrical Engineering Course.)—Class 1.—Black, Allen. Class II.—Nelson, Miller (A. K.), Duncan, St. George, Glassco (J. G.) Howard (R. T.), Montgomery. Class III.—Fraser (John W.), Forman. (Mechanical Engineering Course).—Class I.—Shepherd, Hamilton, Smith (G. B.). Class II.—Walker, Arkley, Percy, McLean (D. J.), Macmaster. Class III.—Osborne, Sise, Neville. (Mining Engineering Course.)—Class I.—None. Class II.—Corriveau, Gillean, Buffett. Class III.—Cary, Buchanan (F. P.), Cowans (F.), Robertson (P. W. K.).

SECOND YEAR.—Class I.—Ward (P. W.), Burson; Archer and Fry, equal. Class II.—DeBlois and Lloyd, equal; McKenzie and Paterson, equal;

\*Supplemental in Mechanics. † " Calculus. † " Algebra. Edwa White (D. C equal. Wilson (E. A. 1 and Og

FOURTH YEAR.— Whyte ( ///.—E

THIRD YEAR.—Cla Howard (E. V.), (

THIRD YEAR. - Clas II. - Buffet Buchanan and Macmi (J. L.), Dor

FOURTH YEAR.—(Mi Campbell (M Innes, Blay Chemistry C THIRD YEAR.—Class and Roberts --Buffett, Ca Passed Spe

THIRD YEAR. - lass 1. Buffett, Moore

FOURTH YEAR. --Class 1 (N: M.), Yuile; 111.-Waller. SECOND YEAR. --Class 1 wards and Wa and Neville iller (A. K.) ith (G. B.).

> t, Byers. . E.). Class - Class I.nd Paterson, ards, equal; (P.), Flint;

> > rcy, Nelson, l Robertson *Class III.* hery; Byers jual; Smith

> > > lement, Mcrson, Taylor A.), equal; bson. Class Flint, Blue, gilvie (P.);

> > > > er, Dutcher, y, Barwick, 's, Dunfield, Campbell

len. Class co (J. G.) (.), Forman. ton, Smith Macmaster. ; Course.)--Tlass III.--

> ual. Class on, equal;

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Edwards and Frechette and Palmer, equal; Fleming; Scott (H. E.) and White (G. V.), equal; Wakeling; Brecken and Burwell and Fraser (D. C.), equal; McLaren (J. H.); Taylor (C. W.) and Scott (H. M.), equal. *Class III.*—Galbraith and Lowden, equal; Wilson (R. C.) and Wilson (T. A.), equal; Cameron, Hampson, Tupper; Blue and Cowen (E. A. A.), equal; Boyd; Burchell and Higman, equal; Glassco (A. P. S.) and Ogilvie (P.), equal; Flint, Ritchie, Kane; Pyke and Wells, equal.

#### MECHANICAL ENGINEERING.

FOURTH YEAR.—Class I.—Dargavel and MacLean (W. B.), equal; Wenger and Whyte (J. S.) and Young, equal. Class 11.—Davidson, Hickey. Class 111.—Ewan and Gisborne, equal; Austin, Yorston.

### METALLURGY.

FOURTH YEAR.—*Class 1.*—Kirkpatrick, Yuile; Blaylock and Pitcher, equal; Campbell (N. M.), Waller. *Class 11.*—Moore, MacInnes, Morgan, Preston, Stevens.

#### METALLURGY (COPPER AND LEAD.)

THIRD YEAR.—Class I.—Gillean. Class II.—Robertson (P. W. K.), Buffett, Howard (L. O.). Class III.—Barber, Donaldson, Corriveau, Moore (E. V.), Cowans (F.), Buchanan, Cary, MacMillan.

#### METALLURGY (IRON AND STEEL).

THIRD YEAR. -- Class I.-Gillean, Robertson (P. W. K.), Shepherd, Corriveau. Class II. -- Buffett; Moore (E. V.) and Barber and Howard (L. O.), equal; Buchanan (F. P.), Arkley, Cowans (F.), Walker; Neville and Osborne and Macmillan, equal. Class III.-Cary, Percy, Smith (G. B.), Millar (J. L.), Donaldson, Macmaster, Hamilton, Sise.

#### MINERALOGY (ADVANCED).

- FOURTH YEAR.—(Mining Engineering Course.)—Class I.—Kirkpatrick, Preston, Campbell (N. M.). Class II.—Yulle; Pitcher and Waller, equal; Mac-Innes. Blaylock, Stevens, Moore. Class III.—Morgan. Practical Chemistry Course.)—Class I.—Hutchinson. Class II.—MacLaren (A. J.).
- THIRD YEAR.—*Class I.*—None. *Class II.*—Corriveau, Gillean ; Howard (L. O.) and Robertson (P. W. K), equal ; Moore (E. V.), Cowans (F.). *Class III.* --Buffett, Cary, Barber.

Passed Special Examination :- Class III.-Buchanan (F. P.),

#### MINERALOGY, DETERMINATIVE.

THIRD YEAR. — *'lass I.*—Gillean, Howard, Corrivean, *Class II.*—Barber, Cowans, Buffett, Moore, Robertson, Donaldson, Cary, *Class III.*—Buchanan.

#### MINING.

- FOURTH YEAR. -- Class I. Preston, Blaylock. Class II. -- Kirkpatrick, Campbell (N. M.), Yuile; Pitcher and Moore, equal; MacInnes, Morgan. Class III. -- Waller.
- SECOND YEAR.—Class I.—Paterson; Blue and Frechette, equal; Burson; Edwards and Ward (P. W.), equal; Clement, Wilson (T. A.). Class II.—

Blanchard and Labatt. equal; Wilson (R. C.); Archer and Reynolds, equal; Fleming; Lloyd and Ritchie, equal; Fraser (D. C.) and McLaren (J. H.) and Wakeling, equal; DeBlois and Palmer, equal; Higman and Jamieson and White (G. V.), equal; Flint and Fry, equal. *Class 111.*— Brecken and Burchell and Cameron and Hampson and McKenzie and Ogilvie (P.), equal; Galbraith and Lowden, equal; Tupper and Glassco (A. P. S.), Taylor (C. W.); Boyd and Burwell and Gagnon (E. E.) and Howard (R. F.) and Scott) H. M.) equal; Cowen (E. A. A.).

#### MINING THESIS.

FOURTH YEAR.—*Class I.*—Kirpatrick and Moore (W. A.), equal; Morgan. *Class II.*—Blaylock and Yuile and MacInnes, equal; Campbell (N. M.); Pitcher and Preston, equal. *Class III.*—Waller, Stevens.

#### MODELLING IN CLAY.

FOURTH YEAR.—(Architectural Course).—Class II.—McLeod (N. M.) and Peden, equal; Hyde (G. T.), Staveley.

#### MUNICIPAL ENGINEERING (ROADS, ETC.).

FOURTH YEAR.—Class I.—Fraser (C. E.), Colpitts. Class II.—Gough, Van Horne, Gagnon (L. F.). Class III.—Bachand.

#### MUNICIPAL ENGINEERING (SANITARY).

THIRD AND FOURTH YEARS. Class I.-Colpitts, Byers, Fraser (C. E.).-Class II.-Ewart, Van Horne: Gagnon (L. F.) and Gough, equal. Class III.-Burgoyne, Corriveau, Bachand.

#### ORE DRESSING.

FOURTH YEAR.—Class I.—Kirkpatrick, Pitcher. Class II.—Blaylock, Campbell (N. M.), Yuile ; Morgan and Moore, equal. Class III.—Waller, McInnes Preston.

#### PHYSICS.

- THIRD YEAR.—(Architectural, Civil, Mechanical and Mining Engineering Courses).
  —Class I.—Shepherd. Class II.—Walker, Gillean; Arkley and Byers and Percy, equal; Ewart. Class III.—Barber; Moore (E. V.) and Buffett and Smith (G. B.), equal; Burgoyne, Neville, Osborne, Robertson (P. W. K.), MacMaster, Buchanan (F. P.), Cowans (F.), Hamilton.— (Electrical Engineering Course).—Class II.—Allen and Black, equal; Nelson. Class II.—Duncan. Class III.—Millar (A. K.), Fraser (John W.), Glassco (J. G.), St. George, Montgomery.
- SECOND YEAR.—Class I.—Clement and Edwards, equal; Burson, Scott (H. E.), Fleming; Fraser (D. C.), Paterson, Ward (P. W.); DeBlois and Taylor (C. W.), equal; McLaren (J. H.), Wilson (T. A.), Glassco (A. P. S.), Blanchard, Palmer. Class II.—Labatt, Fry, Gagnon (E. E.), Wilson

(R. and equs Boyc (E. FOURTH YEAR *II.* -Var THIRD YEAR.

Class 1

FOURTH YEAR.-Wenge Ewan, THIRD YEAR. - C equal. St. Geo Montgon Osborne, SECOND YEAR.-C (J. A.). ron; Free Burchell : Cowen (E ken Clas Ritchie, ec (T. A.), eq FIRST YEAR.-Class cier and Jo equal ; Bai

equal : Bai Whitley, eq field and K Addie and 1 (F. H.) and Crawford an Smith (R. E ham, equal ; Dupuis, equa and Larin an

SP FOURTH YEAR.-(Archit -Peden, McLa

Mackay ..

Reynolds, id McLaren igman and *lass 111.*— Kenzie and nd Glassco (E. E.) and

san. Class
(N. M.);

1 Peden,

igh, Van

).-Class 1. Class

ampbell McInnes

> Courses). ad Byers V.) and bertson ilton. equal; bhn W.),

> > (H. E.), Taylor P. S.), Wilson

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(R. C.); Frechette and McKenzie, equal; Blue and Flint and Hampson and Scott (H. M.), equal. *Class III.*—Lloyd; Archer and Ogilvie (P.), equal; Cameron, Ritchie, Wakeling, Pyke, Tupper, White (G. V.); Boyd and Lowden, equal; Higman, Burwell, Jamieson, Cowen (E. A. A.).

#### RAILWAY WORK.

- FOURTH YEAR.—(Civil and Mining Engineering Courses).—Class I.—Colpitts. Class
   II.—Blaylock and Gough, equal; Fraser (C. E.); Gagnon (L. F.),
   Kirkpatrick and Morgan, equal; Campbell (N. M.), MacInnes. Class III.
   Van Horne; Preston and Yuile, equal; Waller, Moore, Pitcher.
- THIRD YEAR.—(Civil Engineering Course).—Class I.—Ewart. Class II.—Byers. Class III.—Burgoyne and Corriveau, equal.

#### SHOPWORK.

- FOURTH YEAR.—Class I.—Young, White (J. S.), McLean (W. B.), Gisborne, Wenger. Class II.—Dargavel, Hickey, Davidson. Class III.—Austin, Ewan, Yorston.
- THIRD YEAR.—Class I.—Black, Fraser (John W.); Hamilton and Smith (G. B.), equal. Class II.—Duncan and Shepherd, equal; Miller (A. K.), Arkley; St. George and Walker, equal; Forman, Allen; Miller J. N.) and Montgomery, equal. Class III.—Macmaster and Nelson and Neville and Osborne, equal; Coussirat and Glass co (J. G.) and Percy, equal.
- SECOND YEAR.—Class I.—Fry, Burson, Ward (P. W.), Wilson (R. C.), McLaren (J. A.). Class II.—Fraser (D. C.), Taylor (C. W.), Lowden, Cameron; Frechette and Higman and Wakeling, equal; Fleming, Lloyd; Burchell and Hampson, equal; Galbraith and Sise and Wells, equal; Cowen (E. A. A.) and Paterson, equal; Scott (H. M.), Clement, Brecken Class III.—Glassco (A. P. S.) and White (G. W.), equal; Flint and Ritchie, equal; Mitchell and Tupper, equal; Blue: Pyke and Wilson (T. A.), equal; Edwards, Gagnon (E. E.), Ogilvie (P.), DeBlois.
- FIRST YEAR.—Class I.—Corless, Hicks, Smith (J. M.), Sterns. Class II.—De Pencier and Johnston, equal; Dutcher; Campbell (C. M.) and Horsfall, equal: Baird and McBride. equal: Barwick and Murphy and Pratt and Whitley, equal; Porter and Robertson (J. F.), equal; Bigger and Dunfield and Kerr, equal; Lawrence, Labelle; Beck and Pearson, equal; Addie and Hutchings (G. H.) and Jackson and Lockerby and Maclaren (F. H.) and Newton and Smith (G.), equal. Class III.—Brainerd and Crawford and Trenholme, equal; Hutchings (H. C.) and Prefontaine and Smith (R E.) and Weagant, equal; Meyers and Ralph and Trimingham, equal; Beauchamp and Edgar and Wood equal; Coulson and Dupuis, equal; Cummings and Whiteway (F. H. C.), equal; Browne and Larin and Sewell, equal; Dobbin and Hayne and Yuile (H.) equal; Mackay.

#### SPECIFICATIONS AND WORKING DRAWINGS.

FOURTH YEAR.-(Architectural Course).-Class I.-Staveley, Hyde (G. T.). Class II. -Peden, McLeod (N. M.)

#### SUMMER SCHOOL (MINING).

FOURTH YEAR.—Class I.—Morgan, Blaylock, Preston; Kirkpatrick and Pitcher and Yuile, equal. Class II.—Campbell; MacInnes and Moore (W. M.) and Waller, equal; Stevens. Class III.—Nicholls.

#### SUMMER WORK.

- FOURTH YEAR .- Class 1.- Colpitts (Design for Steel Trestle) and Wilson (R. M.) (Testing 12,000 Volt two-phase Generators), equal; Archibald (E. M.), The Distribution of Electrical Power) and McLean (W. P.) (Notes on Shaft Governors) equal; McLeod (N. M.) Summer Cottage and Steel Details); Hutchinson (Experiments on the Condensation of Chloroform with phenylactic ether and benzyl cyanide) and Hyde (G. T.) (Design of Cottage and Architectural Details) and Pitcher (The Coal Woshing Plant of the Dominion Coal Company, Little Glace, C. B.), equal; Gagnon (L. F.) (Plan of Sewage System of Town of Westmount) and Hickey (Design of Crane), equal; Grier (15,000-lb. Portable Crane) and Kirkpatrick (Coal Mining in Cape Breton) and Preston (Coal Mining in Cape Breton) and Shaw (Visit to Chambly Electric Mfg. Company's Works), equal; Dargavel (Drawings of Crane) and Denis (Design of 71 ton Travelling Crane) and Morgan (Mining Wealth of Nova Scotia), equal; Yuile (Coal Carrying, Haulage and Transportation); Bowman (Design and Drawing of High Pressure Condensing Marine Engine) and White (J. S.) (15,000 lbs. Jib Crane) and Young (The Erection of Locomotives) equal. Class II.-Bachand (Notes on Construction of the Telford and Macadam Broken-Stone Pavements) and Fraser (C. E.) (Railway Location, C. P. R. Toronto-Sudbury Line) and Fraser (J. W.) (Crane Design and Calculations) and Hyde (J. C.) (The Chambly Power House) and MacLaren (A. J.) (The Benzo Purpurine Dyes), equal; Campbell (N. M.) (Coal Mining in Cape Breton) and Gisborne (Design of Crane) equal; MacInnes (Coal Mining in Cape Breton) and Moore (Coal Mining in Cape Breton) equal; Peden (Design of Summer Cottage); Blaylock (Surface Plant, Caledonian Mines) and Fetherstonhaugh (Design of Portable Jib Crane) and Gough (The Campbell's Brook Embankment and Culvert, N.S.), equal; Ewan (Design of Crane) and Pergau (Design of Crane) and Van Horne, May of Covenhoven Minister's Island, St. Andrews) and Waller (The Hub Colliery) and Wenger (Design of Travelling Crane), equal. Class III .- Burgess (Design of Portable Hand Crane to lift 15,000 lbs.); Austin (Travelling Crane) and Davidson (Reconstruction of Victoria Bridge) and Hawker (71 ton Portable Crane) and Nicholls (Coal Mining), equal; Fraser (H.) (Railway Crane) and Stevens (Coal Mining in Cape Breton), equal.
  - THIRD YEAR.—Class I.—Ewart (Survey of Horizon from Tower on Mt. Royal), Shepherd (Drawings of Bicycle), Smith (G. B.) (Drawings of Bicycle). Class II.— Hamilton (G. M.) (Drawings of Bicycle) and Robertson (P. W. K.) (Coal Mining in Cape Breton), equal; Miller (A. K.) (The Evans & Dodge Four-Point Bearing); Macmillan (Coal Mining in Cape Breton); Gillean (Manufacture of Salt by Vacuum Process); Anglin (Drawings, Sketches and Architectural Details) and Cowans (F.) (Manufacture of Charcoal Pig Iron),

equal Bicycle (Measu Magda equal ; sington Glasse (F. P. Burgoy (Ida Ma Bearing: Axle and (Drawin Forman of Bicycl and Bear ings of L Neville (

THIRD YEAR,—(Ci 11,—Gill, equal; \*f \*Cary. SECOND YEAR —C chard and (D. C.), Mc (P.), Reynd (G. V.), equ

SECOND YEAR.—(Arc Archer, Pa: Askwith, en Frechette a braith and (P.), Burche

FOURTH YEAR.—Class equal; Class

THIRD YEAR.—Class I. Class II.—Maa riveau and D and Miller (2 nd Pitcher re (W. M.)

on (R. M.) M.), The s on Shaft 1 Details); ith phenyof Cottage lant of the on (L. F.) y (Design irkpatrick in Cape 's Works), of 71 ton t), equal; Design and ite (J. S.) 1al. Class ken-Stone o-Sudbury de (J. C.) Purpurine Gisborne ton) and f Summer onhaugh Embank-Pergau sland, St. Travelad Crane construc-Nicholls ns (Coal

> Royal), ). Class W.K.) ( Dodge Gil!ean ches and ig Iron),

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equal; Donaldson (Coat Mining at Thacker Pt., Vt.); Duncan (Drawings of Bicycle); Buffett (Some Economic Minerals of Newfoundland) and Byers (Measured Blue Prints of Library Building) and Corriveau (Harbour Surveys, Magdalen Islands, Que.) and Howard (L. O.) (Modern High Explosives), equal; Allen (Drawings of Columbia 1896 Model Bicycle) and Nelson (Kensington Cycle), equal; Coote (Sketches); Moore (E. V.) (Gold Mining); Glassco (J. G.) (Drawings of Columbia Bicycle). Class III.-Buchanan (F. P.) (Plan of Part of Bancroft Farm and of Camp Mohegan) and Burgoyne (Chain Survey of Middlemore Farm) and Maclaren (G. M.) (Ida May Gold Mine) and Montgomery (Bicycle Crank Hanger and Rear Hub Bearings), equal; Fraser (John W.) (Bicycle Drawings); Percy (Bicycle Axle and Bearings) and St. George (Drawings of Bicycle), equal; Walker (Drawings of Bicycle); Burwell (Drawings of Bicycle Axle and Bearings); Forman (Drawings of Bicycle Axle and Bearings) and Macmaster (Drawings of Bicycle Axle and Bearings), equal; Howard (R.) (Drawings of Bicycle Axle and Bearings); Cary (The Salt Industry of Ontario); Arkley (Working Drawings of Bicycle); Black (Welland Vale Bicycle); Sise (Design of Bicycle); Neville (Drawings of Bicycle Axle and Bearings); Osborne (Design of Bicycle)

#### SURVEYING.

- THIRD YEAR.—(Civil and Mining Engineering Courses.)—Class 1.—Ewart. Class 11.—Gillean, Buffett. Class 111.—Burgoyne and Robertson (P. W. K.) equal; \*Buchanan (F. P.); Cowan, \*Byers, \*Moore (E.), \*Donaldson, \*Cary.
- SECOND YEAR Civil and Mining Courses.)—Class I.—Clement, Archer; Blanchard and DeBlois, equal. Class II.—Edwards, Paterson, Fraser (D. C.), McKenzie; Galbraith and Paterson, equal. Class III.—Ogilvie (P.), Reynolds, Wilson (T. M.), Tupper, Flint, Frechette and White (G. V.), equal.

### SURVEYING FIELD WORK.

SECOND YEAR.—(Architectural, Civil and Mining Engineering Courses.)—Class I.—
Archer, Patterson, DeBlois, White (G. V.), Gagnon (E. F.); Coote and Askwith, equal; Blue. Class II.—Clement, Edwards, Flint, Blanchard; Frechette and McKenzie, equal; Ritchie, Palmer, Fraser (D. C.); Galbraith and Wells, equal; Tupper, Wilson (T. A.) Class III.—Ogilvie (P.), Burchell.

#### THEORY OF STRUCTURES.

- FOURTH YEAR.—Class I.—Colpitts. Class II.—Fraser (C. E.) and Gagnon (L. F., equal; Class III.—Gough, Van Horne.
- THIRD YEAR.—Class I.—Nelson, Allen, Shepherd, Walker, Hamilton, Gillean. Class II.—MacMaster and Robertson (P. W. K.), equal; Buffett and Corriveau and Duncan, equal; Percy, Montgomery, Moore (E. V.); Arkley and Miller (A. K.), equal; Glassco (J. G.) and Osborne, equal;

Cowans; Black and Ewart, equal. *Class 111.*—Byers and Neville, equal; Burgoyne, Buchanan (F. P.), St. George, Sise, Donaldson; Fraser, (John W.), and Smith (G. B.), equal.

#### THERMODYNAMICS.

- FOURTH YEAR.—Mechanical Course.—Class I.—McLean (W. B.), Dargavel, Young. Class II.—Wenger, Whyte, (J. S.), Davidson. Class III.—Hickey, Ewan; Gisborne and Yorston, equal; Austin.
- FOURTH YEAR.—Ciril, Electrical and Mining Courses.—Class I.—Grier. Class II.— Archibald, Campbell, Kirkpatrick; Denis and Waller, equal; Bowman and Hyde (J. C.), equal; Stevens, MacInnes, Bachand; Fraser (J. W.) and Shaw, equal; Burgess; Fetherstonhaugh and Yuile, equal. Class III.—Moore (W. M.) and Preston, equal; Blaylock and Morgan, equal; Colpitts and McLea and Wilson, equal; Fraser (H.) and Gagnon (L. F.), equal; Pitcher; Fraser (C. E.) and Gough, equal; Van Horne.
- THIRD YEAR.—Class I. —Shepherd ; Neville and Percy, equal. Class II.—Walker, Arkley. Class III.—Smith G. B.), Osborne, Macmaster, Hamilton, Millar (J. L.) and Sise, equal.

Armstrong, A. A Béique, Fred., Butler, W. H., Campbell, G. A., Cousineau, Ls., B. Curran, Louis E., Demers, Olivier, Doak, A. E., Holden, A. R., B.

Leslie, W. C., McMaster, A. R., McMichael, R. C., Mann, J. A., Meagher, J. J.,

Archibald, Sam. G.,

Baker, Geo. H., Burke, Edmund A., Chuvin, Henry A., Dobell, Alfred, B.A., Enright, Frederick I Garneau, Leon, Kay, Wm. F,

Baby, H., B.L., Ball, W. S., Barlow, J. C., Bercoviteh, P., Carter, W. F., B.A.Se

Décarie J. N. F., B.A., Drolet, E. B., B.A. (La Ives, Wm. C., Lynch, W. H., McCabe, F. E. P. F.,

Reeve, Sydney N., Seath, P. K., wille, equal; on; Fraser,

wel, Young. :key, Ewan ;

Class II.-1; Bowman ser (J. W.) ual. Class gan, equal; non (L.F.), rne.

.-Walker, Hamilton,

### Students of the University.

### SESSION 1898-99.

### MCGILL COLLEGE.

### FACULTY OF LAW.

### FIRST YEAR.

Armstrong, A. A.,Bristol, QBéique, Fred.,MontrealButler, W. H.,MontrealCampbell, G. A., B.A. (McG.)MontrealCousineau, Ls., B.L., Gatineau Point, QCurran, Louis E.,MontrealDemers, Olivier,MontrealDoak, A. E.,Coaticook, QHolden, A. R., B.A., B-A.Sc. (McG.)Belleville, OLeslie, W. C.,Spry Bay, N.S.McMaster, A. R.,MontrealMcMichael, R. C.,Windsor Mills, QMann, J. A.,MontrealMeagher, J. J.,Montreal	Mitchell, W. G.,Danby, QMoffat, D. S., B.A. (McG.)Inverness, QNormandin, Z.,St. Henri, QO'Brien, W. H.,Liverpool, Eng.Pearson, G. F.,Traro, N.S.Pitau, G.,Somerset, QPlace, E. G.,MillingtonRowat, D. McK.,Winchester, OSkinner, Waldo M.,St. John, N.BSpringle, H. A.,MontrealThompson, J. R,Megantic Co.Du Tremblay, P. R.,Ste Anne de laPérade, QWestover, E. W.,Sutton, Q
SECOND	YEAR.
Archibald, Sam. G., B.A (McG.) Baker, Geo. H., Sweetsburg, Q Burke, Edmund A., Montreal Chauvin, Henry A., Montreal Dobell, Alfred, B.A., Quebec Enright, Frederick T., Garneau, Leon, Ottawa Kay, Wm. F, Montreal	Macalister, A. W. G., Danville, Q Maefarlane, L., B.A., Montreal Mackay, Hugh, Montreal Margolese, Louis, Montreal Pearson, G. F., Halifax, N.S Redpath, Joscelyn C., Montreal Sharswood, Wm. F., Montreal Trihey, Harry, Montreal Walsh, Thos. E., B.A. (Laval), Montreal

### ł THIRD YEAR.

Baby, H., B.L.,	Montreal	McIver, W. E., M	elbourne, Q
Ball, W. S.,	East Bolton, Q	Mayrand, O., B.L., St.	Philippe, Q
Barlow, J. C.,	Montreal	Rinfret, T.,	
Bercovitch, P.,	Montreal	Robertson, W. G. M., B.A.	(Bishop's),
Carter, W. F., B.A.S.	Se. (MeG.),	Sh	erbrooke, Q
	Cowansville, Q	Saunders, F. C.,	Montreal
Décarie J. N. F., B.A	., N. D. de Grâce, Q	Semple, G. H., B.A. (Laval	), Montreal
Drolet, E. B., B.A.	(Laval), Montreal	Thomson, A. B.,	Montreal
Ives, Wm. C.,	Macleod, Alberta	Thorneloe, W. G., B.A.,	Montreal
Lynch, W. H., McCabe, F. E. P. F.,	Mansonville, Q	Vipond, E. E.,	Montreal
McCabe, F. E. P. F.,	Windsor Mills, Q	Whelan, J.,	Montreal

### PARTIAL STUDENTS.

Montreal

Chicago | Macdougall, J. W.,

Reeve, Sydney N., Seath, P. K.,

Cape Breton

### FACULTY OF MEDICINE.

FIRST YEAR

FIRST Ames, A. C., Donald, B.C. Anderson, R. J. R., Chaudière Basin, Qu Arnold, D. R., B.A., St. John, N.B Belisle, J. R., Nashua, N.H Blair, A. K., Chicoutimi, Que Blair, H. G. F., Ashton, Ont Blakeman, F. W., Stratford, Ont \*Boulter, J. H., Demorestville, Ont Boyd, R. M. Belleville, Ont Briggs, J. A., New Westmister, B.C Buckman, A. R., Brockville, Ont Bulmer, v. M., Montreal, Que Briggs, J. A., New Westmister, B.C Buckman, A. R., Brockville, Ont Bulmer, v. M., Montreal, Que Burton, H. T., Sho't Hills, N.J Byers, J. R., Gananoque, Ont Campbell, J.A. E., B.A., Westmount, Que Carter, W. Le M., Montreal, Que Carter, W. Le M., Montreal, Que Chamberlain, H. B., Perth, Ont Christie, J. F., Martintown, Ont Codrington, R. F., Somerset, Eng Colby, J. C., B.A., Stanstead, Que Coleman, C. E., Chatham, N.B Cullen, W. H., Montreal, Que Cunning, W. G., B.A., Montreal, Que Cunning, W. G., B.A., Montreal, Que Cunningham, R. B., Montreal, Que Curnen, L. M., Lawson's P.O., Queen's Co. N.B Delaney, M., House Harbor, Magdalen Is \*Dempsey, W. B., Calabogie, Ont Cunningham, R. B., Montreal, Que Curren, L. M., Lawson's P.O., Queen's Co. N.B Delaney, M., House Harbor, Magdalen Is \*Dempsey, W. B. Calabogie. Ont \*DesAulniers, P., Ottawa, Ont Dickson, W. H., Pembroke, Ont \*Donnelly, W. H., Nontreal, Que Donohue, J. J. B.A., Worcester, Mass Dorion, W. A., Montreal, Que Dougle., F. C., Montreal, Que Doyle, A. J., B.A., Jacquet River, N.B Eastman, E. B., Portsmouth, N.H \*Eaton, F. C., Hancock, N.H \*Elder, R., Huntingdon, Que \*Ellison, R. B. L., Bear River, N.S Evans, S., Ramsay's Corners, Ont Forkins, C. G., Millstream, N.B Folkins, H. G., Millstream, N.B Folkins, C. G., Millstream, N.B Folkins, C. G., Millstream, N.B Folkins, C. G., Millstream, N.B Gardiner, R. J., Smith's Falls, Ont Gardner, W. A., B.A., Huntingdon, Que Giles, G. N., Madeira, Cal Gilmour, C. R., Brockville, Ont Green, F. W., Pictou, N.S Gurd, R, D., Sarnia, Ont Halliday, J. L., Sawyerville, Que Harris, L. C., Moneton, N.B Hart, F. W., B A., Saekville, N B Hawker, J. E., St. John, N.B Hawker, J. E., St. John, N.B Hawker, J. E., St. John, N.B Hawker, J. E., Montreal, Que Hughes, H. J., Chariottetown P.E.I Husband, B. K., Hamilton, Ont 'Hutchinson, J. W., Montreal, Que Irwin, F., Shelbourne, N.S Johnson, J. A., B.A., Montreal, Que Jones, N. C., Gananoque, Ont King, R., B.A., Sackville, N.B

\* Double Course. + Partial.

atreille, E., B.L., Montreal. Que .cnev, J. M., B.A., Montreal, Que Iacdon-ld, A. A., B.A., St. Andrews, P.E.I Jackimon, G. E. L., Alexandria, Ont. Maciareu, A.H., B.A., Huntingdon, Que MacMillan, T. F., Montreal, Que MarNaughton, J. A., Salisbury, N.B MacNeill, A. J., Stanley Bridge, P.E.I \*McDonald, P. A., Dundee Centre, Que McEachern, I. W. T., Rockland, Ont \*McEwen, J. R., Dewittsville, Que McEibon, D., Arkona, Ont P.E.I McGibbon, D., Arkona, Ont
 McGibbon, D., Arkona, Ont
 McGrath, R. H., Dorchester, N.B.
 McKee, W. E., Coaticooke, Que
 McNawara, W. J., Edmonton, Alta
 McNeill, J. F., Kensington, P.E.I
 \*McPherson, T. Stratford, Ont
 McBut H. A. Buta City Montana McNeve, W. E., Controbust, Alta
McNawara, W. J., Edmonton, Alta
McNawara, W. J., Edmonton, Alta
McNawara, W. Stratford, Out
Maillet, H. A., Bute City, Montana
Manchester, J. W., Sussex, N.B
Martin, H. E., Chatham, Out
Mason, F. C., Plattsburg, N.Y
Mason, L. D., B.A., Montreal, Que
Moffatt, G., Inkerman, Out
Moore, P. T., B.A., Montreal, Que
Moffatt, G., Inkerman, Out
Moore, P. T., B.A., Montreal, Que
Moffatt, G., Inkerman, Out
Moore, P. T., B.A., Montreal, Que
Morrison, J. F., Copleston, Ont
Morse, W. R., B.A., Laureneetown, N.S
Mothersill, G. S., Ottawa, Ont
Munro, A. J. Montreal, Que
\*Murphy, H. H., Antrim, Ont
Neary, A. G., Dorchester, Mass
Ness, W., Howick, Que
Netten, P. E., Port de Grave, Nfd
Oliver, C. J., Mansonville, Que
Paterson, R. C., B.A., Montreal, Que
Paterson, R. C., B.A., Montreal, Que
Pavey, H. L., London, Ont
Peters, O. R., Gagetown, N.B
Pickard, L. N., Charlottetown, P.E I.
Pilot, F. W. H., St. Johns, Nfd
Price, J., Campbellton, N.B
\*Price, J., Campbellton, N.B
\*Price, J., Campbellton, N.B
Ramsay, W. A., Westmount, Que
Rawings, W. T., Montreal, Que
Shaw, De B., Portland, Me
Ship, M. L., B.A., Montreal, Que
Simpson, C. J. Southbridge, Mass
Simpson, C. J. Southbridge, Mass
Simpson, S. C., Montreal, Que
Stowell, F. E., Worcester, Mass
Strong, N. W., Cambria, Ont
Theriault, J., Edmundston, N.B
\*Thomas, J. W., B.A., Montreal, Que
Stowell, F. E., Worcester, Mass
Strong, N. W., Cambria, Ont
Theriault, J., Edmundston, N.B
\*Thomas, J. W., B.A., Montreal, Que
Wante, G. D., Trenton, Ont
Williams, R. G., Woodford, Ont
Wood, W. Westmount, Que
Wr

Alexander, J Anton, D. L. Bayfield, T. I. Beatty, H. W Belanger, E. Bell, A. J., V †Bishop, L. C. Blake, J. J., t Blaquiere J., Boiro W. F. Boire, W., E. Borden, H. L Borden, H. L. Browne, J. G. Bruce, J., B.4 Burrows, A. I Butler, P. E., Burrows, A. I Butler, P. E., Callbeck, A. I Campbell, A., Campbell, R. Cantlie, F. P. Carey, E. E., B †Carlyle, D. A., Chandler, E. C Collison, J. D., Crang, F. W., 1 Currie, W. D., 1 Dalton, C. H., 1 \*Dixon, W. E., 1 Donovan, J. B., †Dowson, C. K., Duncan, J. W., Eflis, R. L., You Fairie, J. A., M. †Fearn, C. J., St Featherston, H. Fearn, C. J., St.
Featherston, H.
\*Fleming, J. E., 1
Fuller, A. T., B.
Fuller, A. T., B.
Fuller, A. T., B.
Fuller, A. T., B.
George, J. D., Re
\*Goodall, J. R., O
Grant, W. W., M
Harley, R. O., Du
Howard, A. C. P.
Hunter, E. N., M
Jackson, C. F., B
\*Johnston, R. De
Johnston, J. L., N
Jones, J. H., Broc
Keenan, F. T. J.,
Kendall, A. L., Va
Ker, R. H., BA, J.
Lawlor, F. E., Dar
\*Learmonth, G. E.,
Leggett, T. H., Ott
Lester, C. W., Sou
Lidstone, A. E., R
Little, H. M., B.A,
Lomas, A. J., Mon
Lunney, T. H., St.
Lynch, J. B., Frede
MacCarthy, F. H., G.

Armstrong, J. W., 1 Baird, J. A., Bruce Ballantyne, C. T., 0

\* Double Course. † Partial.

### 333SECOND YEAR.

54 SECONI Alexander, J. H., Westmount, Que Anton, D. L. S., Ireland Bayfield, T. F., Charlottetown, P.E.I Beaty, H. W., Sarnia, Ont Belay, A. J., Westmount, Que Blake, J. J., Charlottetown, P.E.I Bishop, L. C., Marbleton, Que Blake, J. J., Charlottetown, P.E.I Boire, W., E.Y. Manchester, N.H Borden, H. L. B.A., Canning, N.S Browne, J. G., B.A., Montreal, Que Bruce, J., B.A., Montreal, Que Bruce, J., B.A., Montreal, Que Bruce, J., B.A., Montreal, Que Carly, E. E., B.A., Kozel Guernsey, Eng Carly, E. E., B.A., Rozel Guernsey, Eng Carly, E. C., Montreal, Que Collison, J., Dixon's Corners, Ont Chandler, E. C., Montreal, Que Collison, J., Dixon's Corners, Ont Conson, J., Dixon's Corners, Ont Conson, J., Dixon's Corners, Ont Conson, J., Dixon's Corners, Ont Corner, F. W., Joronto, On Eurie, W. D., B.A., Hallifax, N.S Dalton, C. H., Tignish, P.E.I \*Dixon, W. E., Montreal, Que Dinovan, J. B., Lewiston, Maine \*Dixon, W. E., Montreal, Que Eurie, M. T., B.A., Truro, N.S Fairie, J. A., Montreal, Que Fearn, C. J., St. Johns, Ntfd Fearn, Y. M., Montreal, Que Hunter, F. N., Melt, Mirrimae, Mass Jackson, O. F., Broekville, Ont Kendall, A. E., Almontreal, Que Johnston, J. L., Martintown, Ont Jones, J. H., Brockville, Ont Kendall, A. L., Vancouver, B.C. \*Jackson, O. F., Broekville, Ont Kendall, A. L., Vancouver, B.C. \*Jackson, J. L., Martintown, Ont Jones, J. H., Brockville, Ont Kendall, A. L., Vancouver, B.C. \*Jackson, O. F., Broekville, Ont Kendall, A. L., Vancouver, B.C. \*Jackson, C. F., Broekville, Ont Kennan, F. T. J., Liudsay, Ont Kentall, A. L., Vancouver, B.C. Kent,

1. Que al, Que St. Andrews,

ndria Ont. ingdon, Que

Que iry, N.B dge, P.E.I Centre, Que and, Ont

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W.T W.T McKay, D. S., Reserve Mines, N.S Martin, E. A., Kemptville, Ont Meighen, W. A., Perth, Ont Miller, G. H.S., Alexandria, Ont Moore, R. G., Belleville, Ont Moore, J. C., D.V.S., St. Chrysostome, Que Morgan A. D. New Moore, R. G., Benevine, St. Chrysostome, Que
Moore, J. C., D.V.S., St. Chrysostome, Que
Morgan, A. D., Nanaimo, B.C
Moses, H C., Caledonia, Ont
Mullally, E. J., Souris, P.E.I
Munroe, A. T., Moose Creek, Ont
Newcombe, W. E., Vancouver, B.C
Niven, J. K., London, Ont
O'Reilly, E. P., B.A., Hamilton, Ont
Paradis, J. E., Montreal, Que
Penner, E., B.A., Gretna, Man
Pittis W., Plainfield, N.J
Redon, L. H., B.A., Victoria, B.C.
Richards, B.A., Yarmouth, N.S
\*Ritchie, C. F., Montreal, Qne
Roberts, J. Woodburn, Ont
Roberts, J. Woodburn, Ont
Robertson, C. G., Hawkesbury, Ont
Robertson, K. D., St John, N.B
Robertson, W. G., Montreal, Que
Robidoux, E. L., B.A., Shediac, N.B
Robertson, W. G., Montreal, Que
Russell, C. K., B A., Montreal, Que
Russell, C. M., B.A., Springfield, Mass
Rutherford, C. A., Wadington, N.H
Ryan, W. T., B.A., Fredericton, N. B.
Sauders, C. W., Kemptville, Ont
Saunders, W. E., Woodstock, N B
Shearer, R. L., Kelso, Que
Simpson, E. G. W., B.A., Lennoxville, Que
Simpson, S., Bayview, P.E.I Simpson, E. G. W., B.A., Lennoxville, Que Simpson, S., Bayview, P.E.I Snetsinger, H. W., Moulinette, Ont Stentaford, G. L., Heart's Content, Nfld Stevenson, J., B.A., Montreal, Que 'Stewart, C. J., Russel, Ont 'Taylor, W. L., Waterloo, Que Tobin, A. J., Cornwall, Ont \*Walker, H., New York City, N.Y Ward J. A., Lewiston, Maine Wiggin, W. I., Lowell, Mass \*White, E. H., Montreal, Que Wiley, B. E., Fredericton, N.B Williams, F. T., Boston, Mass Williams, F. T., Boston, Mass Williams, J. Montreal, Que Winter, D. E., Montreal, Que Winter, D. E., Montreal, Que Winter, D. E., Montreal, Que Wyman, H. B., B.A., Chute à Blondeau, Ont Que

#### THIRD YEAR.

Armstrong, J. W., B.A., Bristol, Que Baird, J. A., Brucefield, Ont Ballantyne, C. T., Ottawa, East, Ont

\* Double Course.

† Partial.

Mackay, M., B.A., Montreal, Que Mackenzie, S. D., Sarnia, Ont Macneill, J. W., West River, P.E.I MacAleer, E. F., Bedford, Que McDonald, C. A., Milltown, N.B McDonald, E. E., Fort Qu'appelle, N. W T

Bishop, T. E., Harvey Bank, N.B Brown, E. L., Chesterville, Ont Buffett, C., B.A., Grand Bank, Nfld

Burnett, P., Montreal. Que Campbell, O. E., Apohaqui, N.B. Carnwath, J. E. M., Riverside, N.B
Cartwright, C., Kingston, Ont
Charlton, G. A., Montreal, Que
Chisholm, J., New Glasgow, N.S
Clemesha, W. F., Port Hope. Ont
Coates, H. W., Bass River, N.B
Coffin, J. D., Charlottetown, P.E.I
Cook, C. R., Montreal, Que
Coristine, W. H., Montreal, Que
Coristine, W. H., Montreal, Que
Corstelle, A. E., Montreal, Que
Corstelle, A. E., Montreal, Que
Covperthwaite, W. M., Carboneer, Nfld
Cox, J. R., Hull, Que
Crozier, J. A., B.A., Grand Valley, Ont
Donnelly, A. J., B. A., Surgeon, P.E.I
Dounl, A. E., Montreal, Que
Curzier, J. A., B. A., Surgeon, P.E.I
Dounl, A. E., Montreal, Que
Galbraith, H. H., Westmount, Que
Gibson, E. J., Campbellford, Ont
Giday, A. L. C., B.A., Montreal, Que
Gray, H. R. D., B.A., Montreal, Que
Gray, H. R. D., B.A., Montreal, Que
Gray, H. R. D., B.A., Montreal, Que
Harvie, S. K., B.A., Newport, N.S
Haszard, C. F. L., Charlottetown, P.E.I
Henry, C. K. P., Ottawa, Ont
Hiebert, G., Gretna, Man
Hill, W. H. P., Montreal, Que
Hughes, R. E., Ottawa, Ont
Igoe. O. A., Tarrytown, N.Y
Jardine, J., Freetown, P.E.I
Johnston, A., Leeds, Que
Jones, H. A., B.A., Montron, N.B Jardine, J., Freetown, P.E.1 Johnston, A., Leeds, Que Jones, H. A., B.A., Moneton, N.B Kannary, E. LeR., B.A., Northfield, Minn Keating, B. H., Moore, Ont Littig, J. V., Davenport, Iowa MacKinnon, I. W., Charlottetown, P.E.I MacPherson, C., St. John's, N#4 McAuley, A. G., Ventnor, Ont McConnell, R. E., B.A., Montreal, Que

FOUR" Akerley, A. W. K., Fredericton, N. B. Alley, G. T., Charlottstown, P.E.I. Beadie, W. D., Lachine Locks, Que. Bowles, C. T., Ottawa, Ont. Bradley, J. H., Charlottetown, P.E.I. Brannen, J. P., Montreal, Que. Brennan, F. A., St. Albans, Vt. Brown, W. F., E.A., Plattsburg, N.Y. Browning, W. E., Exeter, Ont. Burris, J. S., Halifax, N.S Cameron, L. G., Cascades, Que. Casselman, P. C., Morrisburg, Ont. Couroy, R. J., Peterborough, Ont. Catag, J. E., North Gower, Ont. Cumning W. A., Buckingham, Que. Cunning Man, A. A., Huntingdon, Que. Cuzer, G., Ottawa, Ont. Drier, N. E., Woolstock, N.B. Dyer, E. O., B.A., Sutton, Que. Faweett, R. F. M., Jamaica, W.I.I. FitzGerald, C. T., Harbor Breton, Nfid. Fourney, F. W., B.A., Montreal, Que. Francis, B., Sydney Mines, N.S. Fuller, G. F. Le R., Sweetsburg, Que. Gabraith, W. S., Lethbridge, Alta,

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McDiarmid, W. B., Maxville, Ont McDonald, W. F., Westville, N.S McKee, S. H., B.A., Fredericton, N.E McSorley, H. S., Enderby, B.C Martin, J. J., North Bay, Ont Martin, I. W., Warden, Que May, L. W., Ottawa, Ont Morrison, G. D., Vankleek Hill, Ont Morrison, G. D., Vankleek Hill, Ont Morrow, J. J., Fergus, Ont Murray, L. M., Truro, N.S O'Sullivan, M. T., Little Glace Bay, C. B Paintin, A. C., Mansonville, Que Paterson, A., B.A., Montreal, Que Paterson, W. F., B.A., Montreal, Que Paterson, W. F., Boa, Montreal, Que Paterson, W. T., Ponds, N.S Payne, R. H., Kingston, Jamaica, W.I.J Pope, E. L., B.A., Belleville, Ont Porter, A. S., Powassan, Ont Reynolds, F. L., St. John, N.B Richard, F. A., St. John, N.B Richard, F. A., B.A., Richibueto, N.B Robb, G. W. A., Oxford, N.S Scriver, E. F., Hamilton, Ont Shaughnessy, C. R., St. Stephen, N.B Snyder, A. E. W., Coatiecoke, Que Sparrow, C. J., Alexandria, Ont Stevenson, R. H., Danville, Que Tammer, C. A. H., Windsor Mills, Que Todd, J. L., B.A., Victoria, B.C Townshend, C., Parrsboro', N.S Turnbull, J. A., Bear River, N.S Turnbull, J. A., Bear River, N.S Wilson, W. A., Carleton Place, Ont Wilkins, F. F., Montreal, Que Wilkins, F. F., Montreal, Que

FOURTH YEAR.

WEAR.
Gillis, E. G., Indian River, P.E.I.
Gordon, A. H., St. John, N.B.
Gray, C. F. A., Montreal, Que..
Greene, E., Leitrim, Ont.
Higgins, C. P., Victoria, B. C.
Jackson, F. S., Westmount, Que.
Jones, F. B.. Montreal, Que.
Jones, D. C., Maitland, Ont.
Law, R., Ottawa, Ont.
Levy, A., B. A., Montreal, Que.
Lineham, D. M., Calgary, N. W.T.
Loogie, A. E., Chatham, N.B.
Lore, R. H., Carleton Place, Ont.
Macdonald, J. S., Montreal, Que.
Macdonald, J. S., Montreal, Que.
Mackenzie, C. A., Toronto, Ont.
McCombe, J., Dublin, Ireland.
McDougall, A., Kippen, Ont.
McKay, J. G., Morewood, Ont.
McKechnie, W. C., Marquette, Man.
McNaughton, F. M. A., B.A., Hunting-don, Que. don, Que. McNiece, T. G., Carsonby, Ont. Mellon, P. B., Ottawa, Ont, Morris, T. E., St. John, N. B. Moss, J. N., Montreal, Que.

# Mousseau, E. Murphy, E. F Murphy, E. F Mussen, A. T. Nash, A. C., O'Brien, J. R. O'Brien, J. R. Peake, E. P., 1 Peppers, H. W Phelps, S. E., Pittis, H., Pla Prodrick, W Rajotte, E. C. Ross, S. A., Hi Ross, W. J., Mi

Nan Adams, Chaunce Ascah, Robt. G., Astle, Thos. F., Blagrave, Robt. ( Carlyle, Ernest J Carson, Hermon . Cole. Cao. F Cole, Geo. E., Cole, Geo. E., Crothers, Harold Crowell, Sam. G., Doucet, Réné P., Eaton, Courtland, Ellison, Baringd I Ellison, Reginald 1 Fox, Frank H., Harris, Spencer L Jack, Milton, McDonald, Jno. A Muir, Kenneth C., Munn, W. Clement Murphy, Herbert E Ogilvie, Guy, Price, Joe, Pruyn, Wm. G., Schrag, Astor R., Troop, G. Wm., White, George D., Wilton, Theorem Wilson, Thomas J.,

Anderson, Richard & Barrington, Fred. H. Boulter, J. Henry, Brodie, Hugh H., Brown, Albert V., Brown, Edwin O., Communer Chris Carruthers, Chris., Charters, Herbert, Chipman, Warwick F Cole, G. Percy, le, Ont e, N.S icton, N.B B.C int e

#### Que Hill, Ónt

ace Bay, C.B Que I, Que real. Que real. Que naica, W.I.I Ont B ucto, N.B

> ille, N.B ing en, N.B , Que nt ue U S Que L B Ont L I. e. T.

> > lan. . P.E.I

unting

Mousseau, E. A., Hull, Que. Murphy, E. F., St. John, N.B. Mussen, A. T., Lachine, Que. Nash, A. C., Ogdensburg, N. Y. Nicholson, F. J., B.A., Victoria, B.C. O'Brien, J. R., B.A., Ottawa, Ont. Peake, E. P., B.A., Oshkosh, Wis. Peppers, H. W., B.A., Fredericton, N.B. Phelps, S. E., Plainfield, N.J. Pittis, H., Plainfield, N.J. Prodrick, W. S., Ottawa, Ont. Rajotte, E. C. F., Montreal, Que. Ross, S. A., Hintonburg, Ont. Ross, W. J., Martintown, Ont. Rutherford, R. M., Hawkesbury, Ont. Ryan, G. H. W., Montreal, Que. Scott, J. F., Montreal Annex, Que. Shore, R. A. A., B. A., Toronto, Ont. Sutherland, W. H., Sea View, P. E. I, Thompson, G. H., North Sydney, NS. Tooke, F. T., B.A., Montreal, Que. Trites, C. B., Petitcodiac, N.B. Turnbull, T., Stratford, Ont. Wilkins, W. A., Nepean, Ont. Wilkins, W. A., Montreal, Que. Witherbee, W. D., Potsdam, N.Y. Wood, D. F., Faribault, Minn, Woodley, J. W., Rockland, Ont.

### FACULTY OF ARTS.

### Undergraduates.

### FIRST YEAR.

Name. Adams, Chauncey A., Ascah, Robt. G., Astle, Thos. F., Blagrave, Robt. C., Carlyle, Ernest J., Carson, Hermon A., Cole, Geo. E., Crothers, Harold R., Crowell, Sam. G., Doucet, Réné P., Eaton, Courtland, Ellison, Reginald B. L., Fox, Frank H., Harris, Spencer L. D., Jack, Milton, McDonald, Jno. A., Muir, Kenneth C., Munn, W. Clement, Murphy, Herbert H., Ogilvie, Guy, Price, Joe, Pruyn, Wm. G., Schrag, Astor R., Troop, G. Wm., White, George D., Wilson, Thomas J.,

Anderson, Richard S., Barrington, Fred. H., Boulter, J. Henry, Brodie, Hugh H., Brown, Albert V., Brown, Edwin O., Carruthers, Chris., Charters, Herbert, Chipman, Warwick F., Cole, G. Percy,

School. Residence. Stanstead Wesleyan Coll., Coaticook, Q M. Dioc. Theol. College, Albert College, Belleville, O., M. Dioc. Theo. College, Peninsula, Gaspé, Q Little Metis, Q Rawdon, Q Woodstock Coll. Institute, Woodstock, 0 Danville Academy, Nicolet Falls, Q Westmount, Montreal Venice. Q Institute Feller, St. Francis Coll. School, Yarmouth Academy, N.S., Yarmouth, N.S. St. Mary's College, Montreal Westmount Academy, Westmount, Montreal Rothesay Church Sc. for Boys, Bear River, N.S Private Tuition, Montreal Private Tuition, Montreal Coll. Institute, Ottawa, O Chateauguay Basin, Q Valleyfield, Q Huntingdon Academy, Huntingdon Academy, Huntingdon, Q Quebec High School, Quebec Antrim, O Almonte High School, Abingdon School, Private Tuition, Montreal Campbelltown, N.B Mapanee Coll. Institute, Brantford Coll. Institute, M. Dioc. Theol. College, Jameson Ave. Coll. Institute, Napanee, O Brantford, O Montreal Toronto, O M. Dioc. Theol. College, Shawville, Q

#### SECOND YEAR.

Albert College,Kenlis, AssaWaterloo Academy,Waterloo, QPicton High School,Demorestville, OMcGill College,St. Henry, MontrealMontreal High School,MostrealPrince of Wales College,P.E.I., Little York, P.E.I.Montreal Dioc. Theol. College,MontrealAbingdon School,MontrealMontreal High School,MontrealMontreal High School,MontrealMontreal High School,MontrealMontreal High School,Montreal

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### Name.

Copeman, Joseph Hodge, Cotton, Wm. U., Davies, Nelson C., Dickson, Norval, Fuller, George D., Harper, Robert J., Hickson, Robert N., Ireland, A. Austin, Ireland F. Charles, Irving, George, Lindsay, J. Edwin, Lochead, Arthur W., McCormick, Alex. S., McDonald, John, McEwen, John R., McLeod, Angus B., McMurtry, Gordon O., McMurtry, Shirley O., McNaughton Wm. G., McPherson, Thomas, Michell, Isaiah Edward, Moffatt, Charles F., Molson, Percival, Mount, Hector P., Mowatt, Joseph A., Parker, Dan. T., Ross, Jno. M., Scott, Wm. J., Scringer, Francis A. C., Stephens, Laurence, Sterns, H. Edgar, Strong, Norman W., Tees, Fred. J., Vices Norman Viner, Norman, White, D. Roderick, Williams, Hy. S.,

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### School.

Quebec High School, Quebec Sweetsburg, Q Bedford, Q Feller Institute, Grande Ligne, Q., McGill Normal School, Huntingdon Academy, Allan's Corners St. Francis College, Adamsville, Q Montreal High School, Montreal Abingdon School, Montreal, Montreal M. Dioc. Theol. Coll., Montreal Montreal Coll. Institute Westmount, Montreal Prince of Wales Coll., P.E.I., Vernon Bridge, P.E.I. Montreal Dioc. Theol. Coll., Rawdon, Q Kemptville High School, North Gower, Ö Abingdon School, Montreal High School, Westmount, Montreal Montreal Huntingdon Academy, Prince of Wales Coll., P.E.I., Dewittville, Q Springton, P.E.I Montreal High School, Montreal High School, Montreal Montreal Huntingdon Academy, Collegiate Institute, Stratford, Huntingdon, Q Stratford, O Private Tuition, Montreal High School, Sherbrooke, Q Montreal Montreal High School, Montreal Montreal Dioc. Theol. College, Montreal Montreal Montreal High School, Lachute Academy, University Coll., Toronto, Montreal High School, Cambria, Q Embro, U Montreal Montreal High School Montreal Clifton College, Eng., Prince of Wales Coll., P.E.I., Charlottetown, P.E.I. Waterloo Academy, Cambria, Q Montreal High School, Montreal Montreal High School, Montreal Huntingdon, Q Knowlton, Q Huntingdon Academy, Montreal High School,

Residence.

### THIRD YEAR.

Name.	Residence.	Name.
Ainley, Laurence,	Almonte, O	Luttrell, Hy P.,
Cochrane, Donald,	Montreal	Mackinnon, Cecil
Cohen, Abraham,	Montreal	Macmillan, Cyrus
Cooke, H. Lester,	Montreal	Mitchell, Sydney,
Crack, Isaac E.,	Kingsbury, Q	Newson, Wm. V.,
Crowell, Bowman C.,	Yarmouth, N.S.	Nutter, J. Applet
DeWitt, Jacob,	Montreal	Radford, E. Alan,
Dixon, James D,	Montreal	Reford, Lewis,
Elder, Robert,	Trout River, Q	Ritchie, Charles
Ells, Sydney C ,		Rowat, T. Alex.,
Ferguson, Colin C.,	Marshfield, P.E.I	Rowell, Arthur H
Forbes, Wilfrid, Vern		Scott, George W.,
	PÉÍ	Scott, Harry E.,
Grier, Geo. W.,	Montreal	Stewart, Donald,
Hardy, Chas. A., For	tune Cove, P.E.I	Walker, Horatio,
Horsfall, Frank L.,	Montreal	Weinfield, Henry
Jeakins, Chas E.,	Huntingdon, Q	Willis, Samuel J.,
Johnson, J. Guy W.,	Montreal	Woodley, Edward
Lee, Hy. S.,	Kamloops, B.C	

Residence. Montreal Cowansville,Q G., s J., Charlott'n, P.E.I Montreal Charlottetown, P.E.I Montreal ton, Montreal Montreal F., Montreal Athelstan, Q I., Montreal Montreal Napanee, O Dunbar, O L'Ile d'Orléans, Q Montreal 7, Kingston, P.E.I i c., Montreal

### Name Brown, Wa Bruce, Guy Cotton, Cha Cumming, V Dixon, Wm Duguid, Ro Ells, Hugh, Gardner, R. Goodall, Jan Hardisty, Ri Heeney, Wm Henderson, E Holland, Tho Johnson, R. 1 Johnston, Wa Keith, Henry

A Studen Student. The figure a class in the co

### Name.

Andrews, John Blackader, Gord Boright, S. H., Bradford, Wm. ( Brandt, Ed. E., Browne, H. Dalz Condé, Geo. D., Coone, A. W., Coulin, J. Ed., Curran, David, Dempsey, W. B. DesAulniers, Pau Donnelly, W. Hy., Green, R. J.,

Ashton, W. J., Bailey, Thos. V Barker, Arthur, (1) Bradford, Wm. Clarke, Wm. H. (1) Coone, A. W. Edwards, John (1) Green, R. J. Greenaway, R. I Greig, J. G., We Hamilton, W. A.,

Kaine, Chris. C., Lapointe, Clé.,

### Residence.

Quebec weetsburg, Q Bedford, Q an's Corners damsville, Q Montreal Montreal Montreal nt, Montreal ridge, P.E.I. Rawdon, Q h Gower, O nt, Montreal Montreal montreal mgton, P.E.I Montreal Montreal itingdon, Q stratford, O erbrooke, Q Montreal Montreal Montreal Montreal Cambria, Q Embro, O Montreal Montreal Montreal own, P.E.I. ambria, Q Montreal Montreal tingdon, Q nowlton, Q

> Residence. Montreal unsville,Q t'n, P.E.I Montreal wm, P.E.I Montreal Montreal Montreal Montreal Montreal Montreal panee, O unbar, O léans, Q Montreal n, P.E.I Vontreal

### 337

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### FOURTH YEAR.

Name.	Residence.	Name.	Residence.
Brown, Walter G.,	Athelstan, Q	Larmonth, Geo. E.,	Montreal
Bruce, Guy O. T.,	Huntingdon, Q	Laurie, Ernest,	Montreal
Cotton, Chas. M.,	Sweetsburg Q	Lundie, John Alex.,	Montreal
Cumming, W. Gordon,	Montreal	McClung, Robert K.,	Kingsbury, Q
Dixon, Wm. E.,	Montreal	McDonald, Paul A.,St.	Agnes de Dundee
Duguid, Robert Colin,	Montreal	MacKay, Hector,	Ripley, O
Ells, Hugh,	Otawa	McKenzie, Bertram S.,	London, O
Gardner, R. Lorne,	Brockville, O	McLeod, John B.,	Springton, P.E.I
Goodall, James R,	Ottawa	Munroe, thos. A.,	Montreal
Hardisty, Rich. H. M.,	Montreal	Patch, Frank S.,	Montreal
Heeney, Wm. Bertal, I	Danford Lake, Q	Rice, Horace G ,	New Darham, O
Henderson, Ernest H.,	Franklin Centre	Robertson, Lemuel,	Marshfield, P.E.I
Holland, Thos. B.,	London, Eng.	Thompson, James E.,	Conticook, Q
Johnson, R. De Lincey	Montreal	Wainwright, Arnold,	Montreal
Johnston, Wallace,	Redsgrave, O	White, E. Hamilton,	Montreal
Keith, Henry J.,	Smith's Falls, O	,	

### Partial Students.

A Student who is not an Undergraduate, or Graduate, is called a Partial 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.

Name.	Residence.	Name.	Residence.
Andrews, John J.,	St. Lamberts	Laughlin, Wm. A.,	Toronto, O
Blackader, Gordon 1	H., Montreal	MacCallum, J. D. G.,	Montreal
Boright, S. H., S	utton, Brome Co., Q	McDougall, Erroll W.,	Montreal
Bradford, Wm. G.,	Montreal	Millar, Wm.,	Pembroke, O
Brandt, Ed. E.,	1	Morrow, John D.,	Toronto, O
Browne, H. Dalzell,	Montreal	Mosgrove, E. J. W.,	Mosgrove, O
Condé, Geo. D.,	Lancaster, O	Plant, Verner L.,	Montreal
Coone, A. W.,	Manilla, O	Robertson, Harry D.,	Almonte, O
Coulin, J. Ed.,	Montreal	Shallow, T. Jack,	Montreal
Curran, David,	Kirkdale, Q	Tanner, Ag. H.	Joliette, Q
Dempsey, W. B.,	Calabogie, O	Thomson, Jas. A.,	Hamilton, O
DesAulniers, Paul,	Ottawa, O	Thomson, Leslie C.,	Montreal
	St. Henri, Montreal	Walker, John I.,	Toronto, O
Green, R. J.,	Springford, O	Wotherspoon, Hugh,	Montreal

### SECOND YEAR.

(1)	Ashton, W. J., Bailey, Thos. W., Barker, Arthur, Bradford, Wm. G. Clarke, Wm. H., Coone, A. W. Edwards, John A., Green, R. J. Greenaway, R. B., Greig, J. G., Westin Hamilton, W. A., Ci Kaine, Chris. C., Lapointe, Clé.,	Hamilton, O nount, Montreal	Lloyd, A. E., McLeod, N. V., Mathieson, Peter, Ogilvie, Lorne C., Oulton, Geo J., Philps, T., Reeve, Sidney N., Sawyer, Thos. E., Staple, L. K. Sutcliffe, J. T., Swinton James, Turkington, Ed., Vickery, T. J.,	Thamesville, O Granby, Q Foresters Falls, C Montreal Moneton, N, B Melbourne, O Montreal Woodham, O Camlachie, O Rockton, O Marlbank, O Smith's Falls, O
Lapointe, Clé., Montreal   Vickery, T. J., Smith's Falls, O W				

### THIRD YEAR.

				Name. 1	Residence.
	Name.	Residence.		Miller, John H.,	Cashel, O
( )	Ashton, W. J.			Millson, Walter E.,	Glanworth, O
$\binom{2}{(2)}$	Bailey, Thos. W.			Munroe, Wm.,	Woodstock, O
$\binom{2}{2}$	Barker, Arthur		(9)		()
$\binom{2}{(2)}$	Clarke, Wm. H.		(2)	Powell T.,	Almonte, O
$\binom{2}{2}$	Coone, A. W.			Sands, H. Hayden	
(-)	Crabb, Geo. J.,	Pembroke, O	(2)	Sawver, Thos. E.	M. Durham 0
(2)	Green, R. J.		(-)	Secord, Albert,	New Durham, O
$(\overline{2})$	Hamilton, W. A.	Exeter, O	(2)	Sutcliffe, J. T.	Montreal
( )	Hicks, R.,	Everen, o	. /	Taylor, All. M.,	0 0
(2)	Lloyd, A. E.			Tippet, Ernest H.,	Horen Day)
		inloss, Lucknow, O	(2)	Vickery, T. J.	Malakoff, O
	B. R.	St. Catharines, O		Wiggins, M. E.,	
	Masson, W. D.,				
			T	YEAR.	
		FOUL	(TH	1 EAR.	

, ,		Mooers, N. Y	(3)	Oulton, Geo. J. Runnells, Arthur E Sands, Hy. Hayder	E., Egypt, Q	
$\binom{(3)}{(2)}$	Greig, John G. Hicks, R. Kaine, Chris. C.		(3)	Secord, Albert Smith, G. E.,	Stoney Creek, O	
(3)	MacInnes, Finlay, Munroe, Wm.					

Grace, Arch. H., Hutchison, David,

## в. А.

Montreal Meyer, Jno. B., Brechin, O Robertson, Jno. C.

Montreal Kings Co., N.B

# Blackwell, Alice M. Campbell, M. Roslyr Dansken, Christina F

Dixon, Jennie D., Evans, Beatrice L., Evans, Beatrice L., Fortier, Georgina H., Gould, Emily DeW., Gurd, Muriel M, Harrington, Clare M.,

Armstrong, Mabel Clogg, Vivian E., Edwards, Alice M. (1) Evans, Beatrice L.

(1) Hickson, A. Beatric Lamb, Mary L., Meighen, Maggie F.

### DONALDA DEPARTMENT. SPECIAL COURSE FOR WOMEN.

### Undergraduates.

### FIRST YEAR.

Name. Baillie, Muriel L., Ellison, Ada A., Greenleese, Mary S., Hitchcock, Caroline L., Irving, Elizabeth,

### Kingsley, Alice M.,

McLachlan, Jessie W., McLaenian, Sessie (M.) McLeod, May A., Nolan, Annie W., Smith, Miriam G., Warriner, J. Eva, Wright, Elizabeth A.,

Residence. Westmount, Montreal School. Westmount Academy, Cowansville, Q McGill Normal School, Montreal Misses Symmers & Smith's School, Brockville, O Brockville Coll. Inst., Prince of Wales Coll., P.E.I., Vernon River Bridge, P.E.I Victoria H. S., St. John, N.B., & Montreal H.S., Montreal Guelph, O Westmount, Montreal Westmount, Montreal Morrisburg, O Guelph Coll. Inst., Westmount Academy, Westmount Academy, Westmount Academy, Morrisburg Coll, Inst., M. G. H. S. & Private Tuition, M. G. H. S. & Private Tuition, Montreal Montreal

Bennett, C. W Bickerdike, Ma Budden, Jessie Budden, Ellen

Nan

Day, Daisy W. Huxtable, Gert Molson, Evelyn, Page, Harriet 4 Radford Isabel Radford. Isabel, Willis, Elizabet

# Name. Brooks, Elizabeth Dey, Mary Helen Garlick, Edythe Holman, Carolin

Jackson, E. Gerti Lundie, Jessie F.,

Armstrong, Cather Brodie, Margt., Finley, Kathleen 1 Holiday, Annie, Hurst, Isabel M., Johnson, Helena, King, Christina C.,

### SECOND YEAR.

Name. Bennett, C. Winifred, Bickerdike, May C., Budden, Jessie M., Budden, Ellen M., Day, Daisy W., Huxtable, Gertrude M., Molson, Evelyn, Page, Harriet A., Radford, Isabel, Willis, Elizabeth I., School.Residegce.Montreal G. H. S.,MontrealMontreal G. H. S.,Lachine, QMontreal G. H. S.,MontrealMontreal G. H. S.,MontrealMontreal G. H. S.,MontrealMontreal G. H. S.,Montreal AnnexPerth Coll. Inst.,Montreal AnnexMontreal G. H. S.,MontrealMontreal G. H. S.,MontrealMontreal G. H. S.,MontrealMontreal G. H. S.,MontrealMontreal G. H. S.,MontrealStanstead Wesleyan Coll.,North Troy, VtMisses Symmers' & Smith's School,MontrealDunham Ladies Coll.,Westmount, Montreal

### THIRD YEAR

Name.	Residence.	Name.	Residence
Brooks, Elizabeth A , Dey, Mary Helena, Garlick, Edythe A.,	Montreal Simcoe, O Montreal	Marcuse, Bella,	R., Victoria, B.C Westmount, Montreal
Holman, Caroline É.,	Summerside, P.E I.	vil Rorke, Helen,	, Upper Mauger- le, Sunbury Co., N.B St. Thomas, O
Jackson, E. Gertrude, Lundie, Jessie F.,	Montreal Montreal	Smith, Lillian A.,	Morrisburg, 0

### FOURTH YEAR.

Armstrong, Catherine,	Bristol, Q	McDougall, Louise,	Montreal
Brodie, Margt.,	Montreal	McGil), I. Winifred,	Ottawa, O
Finley, Kathleen E.,	Montreal	Potter, Lucy E.,	Montreal
Holiday, Annie,	Rawdon, Q	Radford, Janet I.,	Montreal
Hurst, Isabel M.,	Montreal	Reid, Lena McK.,	Montreal
Johnson, Helena,	Montreal	Reynolds, Elizabeth E.M.	Winchester, O
King, Christina C.,	Sarnia	Scrimger, Anna M.,	Montreal

### Partial Students.

### FIRST YEAR.

Blackwell, Alice M. L.,	Montreal	Hyde, Elsie, J.	Montreal
Campbell, M. Roslyn,	Montreal	Lamb, Mary L., St. And	rews' East, Q
Dansken, Christina R.,	Glasgow, Scot-	Lewis, Stephanie,	Montreal
	land	Lightbound, Gertrude,	Montreal
Dixon, Jennie D.,	Montreal	Mariotti, Isabel,	Montreal
Evans, Beatrice L.,	Montreal	Peverley Evalyn I.,	Montreal
Fortier, Georgina H.,	Montreal	Peverley, Hazel,	Montreal
Gould, Emily DeW.,	Montreal	Prowse, Florence,	Montreal
Gurd, Muriel M,	Montreal	Rainey, S. Frances,	Ottawa, O
Harrington, Clare M.,	Montreal	Sutherland, Alice D.,	Montreal

### SECOND YEAR.

Armstrong, Mabel C., Clogg, Vivian E., Edwards, Alice M., (1) Evans, Beatrice L.,	Montreal Montreal Montreal	Girdwood, Dora E., Plimsoll, M. M. Gladys, (1) Prowse, Florence.	Montreal Montreal
--	----------------------------------	--	----------------------

### THIRD YEAR.

(1)	Hickson, A. Beatrice, Lamb, Mary L., Meighen, Maggie F. S.,	Montreal Montreal	Richardson, Mabel H., Thomas, M. Wolferstan,	Montreal Montreal
	Meignen, Maggie F. S.,	Montreal		

dence. Cashel, O lanworth, O oodstock, O

Almonte, O

### Durham, O

Montreal orth Bay, O

Malakoff, O

### Egypt, Q

y Creek, O

Montreal (s Co., N.B

> lence. Montreal insville, Q Montreal ikville, O er Bridge, P.E.I eal H.S., Montreal iuelph, O Montreal isburg, O Montreal Montreal

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### FOURTH YEAR.

Name. (3) Hickson, A. Hickson, C.	Residence Beatrice. Mabel., Mo	e. ontreal	Name. Re Mackenzie, Evelyn, Morris, Annie M.,	Montreal Montreal
Carr, Muriel B., Dover, M. Violet Hammond. Eliza	St. Joh te, Peterbol beth A., M	ro, Ont P	yman, Kath. T., earson, Katie C., itcher, Ethelwyn R., atley, Eleanor,	Montreal Montreal Iroquois, O Montreal

## FACULTY OF APPLIED SCIENCE.

FIRST YEAR.

114.5.	
	*Larin, Ra
	Lawrence,
Baird, Alexander, Montreal	Lockerby,
*D. walay Malouni 2.	Mickay, E
Barwick, William D.,	Maclaren,
	MacLeod.
Deck, Montreat	MacLeod, Mathers,
*Beauchamp, neony Ottawa, O	Mathers,
Bigger, Howell, Quebec, Q	MeBride,
*Blanchet, John S., Quebec, Q	*McLean,
	Meldrum,
"Browne, H. Danles McK., Winnipeg, Campbell, Charles McK., Man	*Meyers,
IT Ulton O	Mitchell,
Cape, Ernest K., Hamilton, O Conmore, Alt.,	Murphy,
Cardell, Alfred E, Conmore, Alt., N.W T	Newton,
Carden, N.W I	Onderdo
Montreal Montreal	
Cassils, Charles W., Montreat Charles W., New Durham, O	Pearson,
	Peck, T.
Coulson, John L.,	*Porter,
	Pratt, S
*Commings, Eugene	*Prefon
	Ralph, C
De Pencier, Henry P., Vancouver, B.C.	Roberts
M Annal	nosere
*Dobbin, Cyril E. B., Montreal	*Scott,
Dunfield, John O. Wiger Montreal	Sewell,
Dapuis, Albert, Dutcher, Howard K., Charlottetown, P.E.I.	Smith,
Dutcher, Howard P.E.I.	Smith,
Montreal	Smith,
Edgar, John H., Montroal	Sterns,
*Evans, William II,	*Stuart
dilla anis Allan Dale,	Trenho
*Harris, Spencer II. Durly Manthood	*Trimu
Havne Fergus U.	
Hayne, Fergus O., Perth, O Hicks, Thomas N., Lachine Locks, Q	Walsh,
Hicks, Thomas N., Horsfall, Herbert, B. Hamilton, Ber-	
Horstan, Hore R., Hamilton, Ber-	. Waru
"Hutchings, George Livy muda	•Watso
*Hutchings, Somers C., Hamilton, Ber- mud	- Weaga
*Hutchings, Somers O., Hummud	1
The manta (	)   White
Jackson, Philip T., Toronto, C.	
Jackson, Philip T., *Johnston, Christopher F., San Dieg Cal., U.S.A	Whitle
Mantaga	Yuile,
Kerr, Alison P. R., Montrea Montrea	
Labelle, Joseph, Montrea	er (
L'aberre, observer	

Jordan, Florence,

Montreal rin, Raoul, Hugh R., St. George, N.B Robert A., Montreal , Robert A., Montreal Eric, St. John's, Newfoandland Huntingten, Q Toronto, O St. John, N.B Francis H , Russell M., William R., Ingelwood, O Wilbert G., , D. Jerrold, Charlottetown, P.E.I Montreal Robert H., Listowel, O Archie J., Archie G., Toronos, George G., Shelburae, N.S William E., Shelburae, N.S Samuel R., Drummondville, Q Hamilton, O , Hartley M., Huntington, Q Esmond, Montreal William J., Douglastown, N.B tephen S., Cranbrook, B.C. Esmond, Stephen S., Cataine, Rolland, Montreal Ottawa, O Claude E, son, John F., Charlottetown, P.E.I P.E.1 Napanee, O Quebec, Q St. Johns, Q Petiteodiac, N.B Windsor, N.S ell, P.E.I Harry E., Alexander L , Gerald, . J. Macdonald Ralph E. Frank E. Morrell, t. Charles J., Dime, Harold W., Montreal Montreal ingham, Charles L., Barbadoes, W.I Ormstown, Q William N., i, Roger, Montreal son, Robert G., Montreal ant, Roy A., Derby Line, Vt., U.S.A Montreal way, F. H. Clare, St. John's, Newfoundland ley, Herbert A., , Herbert, Montreal Montreal

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### Archer, Augu

Askwith, Charl Blanchard, Arth Blue, Allen P., Boyd, Hugh <sup>11</sup>., Brecken, Walte

Burchell, George

Burson, Herbert Barwell, Ernest V Cameron, Hugh D Cary, George M., Clement, Sheldon Coote, Sydney

\*Cowen, Edwin A. DeBlois, William Edwards, William 1 Edwards, William 1 Fleming, James M. Flint, William G., Fraser, Donald C., Frechette, Howells, Fry, David M., Gagnon, Edmund E. Galbraith, Malcolm Glassco, Archie P. S. Hampson, E. Greville

Allen, Samuel J., Anglin, James P., Arkley, Lorne M., Barber, Rene R., Black, Thompson T., Buchanan, Fitzherbert Buffett, Aaron F., G Burgogne, Stanley J., Byers, Archibald F., Corriveau, Raoul de B., Coussirat, Henri A., Cowans, Frederick, Donaldson, Hugh W., Duncan, G. Rupert, Ewart, Geo. R., H Fraser, John W., Charle Forman, Andrew S., Gillean, R. Hampson, Glassco, Jack G., Hamilton, Geo. M.,

Archibald, Ernest M., Austin, Claude V. C., Bachand, George A., Blaylock, Selwyn G., Bowman, Archibald A., N.

sidence. Montreal Montreal

> Montreal Montreal Iroquois, O Montreal

Montreal George, N.B Montreal ewfoundland intington, Q Toronto, O t. John, N.B igelwood, O arlottetown, P.E.I Montreal Listowel, O Toronto, O Iburae, N.S iondville, Q Hamilton, O ntington, Q Montreal stown, N.B. brook, B.C. Montreal Ottawa, O rlottetown, P.E.I Napanee, O Quebec, Q t. Johns. Q podiac, N.B ndsor, N.S ndsor, N... P.E.I Montreal Montreal Barbadoes, W.I mstown, Q Montreal Montreal ine, Vt., U.S.A in's, Newfoundland Montreal Montreal Archer, Augustus R., New York, U.S.A Askwith, Charles E., Ottawa, O Blanchard, Arthur C. D., Windsor, N.S Blue, Allen P., Boyd, Hugh <sup>11</sup>., Eustis, Q Montreal Brecken, Walter R., Charlottetown, P.E.I Burchell, George B., New Campbellton, N.S St. Catharines, O London, O Burson, Herbert A., Barwell, Ernest V., Cameron, Hugh D., Montreal Goderich, O Cary, George M., Cary, George M., Clement, Sheldon B., Clinton, O Coote, Sydney R., St. Albans, Vt., U.S.A \*Cowen, Edwin A. A., DeBlois, William H., Montreal Halifax, N.S. Edwards, William M., Fleming, James M., Flint, William G., Fraser, Donald C., 1 Ottawa, O Halifax, N.S. Montreal New Glasgow, N.S. Frechette, Howells, Fry, David M., Ottawa, O Bright, O Gagnon, Edmund E., Galbraith, Malcolm T., Montreal Montreal Glasseo, Archie P. S., Hampson, E. Greville, Hamilton, O

### 341 SECOND YEAR.

Higman, Ormond, Howard, Rupert F., Ottawa, O Lachine, Q Jamieson, George E. T., Montreal Kane, Roderick A. C., Montreal Labatt, John S., London, O Lloyd, Herbert M., New Westminster, London, O B.C Lowden, Warden K ... Montreal McKenzie, Bertram S., McLaren, John, London, O Montreal Millar, James L., Ogilvie, Paul, Palmer, Ernest E., Pembroke. 0 Cummings' Bridge, O Toronto, O Paterson, Charles S., Montreal Pyke, Gordon McT., Montreal Reynolds, Leo B .. Waterford, O Ritchie, Joseph N., Halifax, N.S Schwitzer, Thomas H., Ottawa, O Scott, Henry M. Montreal Taylor, Charles W., Richwood, O Tupper, Charles, Vancouver, B.C Wakeling, Otty S., Ward, Percy W., St. John, N.B Lachine, Q \*Watson, Hugh, Montreal Wells, Samuel S., Montreal White, Gerald V., Pembroke, O \*Whiteway, Wm. V.E., St. John's, Nfld Wilson, Thomas A. Waverley, Halifax Co., N.S

### THIRD YEAR.

Montreal

Allen, Samuel J., Maitland, N.S. Anglin, James P., Arkley, Lorne M., Barber, Rene R., Kingston, O East Angus, Q Georgetown, O Black, Thompson T .. Sackville, N.B. Buchanan, Fitzherbert P., Montreal Grand Bank, Nfld. , Halifax, N.S. Buffett, Aaron F., Burgogne, Stanley J., Byers, Archibald F., Gananoque, O Iberville, Q Corriveau, Raoul de B., Coussirat, Henri A., Montreal Cowans, Frederick, Montreal Donaldson, Hugh W., Hamilton, O Duncan, G. Rupert, Montreal Ewart, Geo. R., Kilauea, Kanai, Hawaiian Islands Fraser, John W., Charlottetown, P.E.I Forman, Andrew S., Montreal Gillean, R. Hampson, Montreal Glassco, Jack G., Hamilton, Geo. M., Hamilton, O Peterboro, 0

Lachine, Q \*Howard, Lawrence O., Ottawa, O Maclaren, George McG., Macmaster, Arthur W., Macmillan, George P., Montreal Petrolia, O Bridgeburg, O Miller, Angus K., Montgomery, George, Moore, Ernest V., Morrisburg, O Peterborough, 0 Halifax, N.S. Halifax, N.S. Toronto, 0 Nelson, George J., Neville, Thos. P. J., Osborne, J. Ewart, \*Parizeau, Henri D., Boucherville, Q Percy, Howard M., Robertson, Philip W. K., Montreal Mexico City, Mexico Shepherd, Harry L., Brockville, O Sise, Paul F., Montreal Smith, George B., St. George, Harry L., \*Staveley, Edward B., Stratford, 0 Montreal Quebec Walker, Frank W., Montreal

### FOURTH YEAR.

	Archibald, Ernest M.,	Halifax, N.S	Burgess, R. Earl,	Wolfville, N.S.
	Austin, Claude V. C.,	Ottawa, O	Campbell, Norman M.,	Montreal
4	Bachand, George A.,	Montreal	Colpitts, Walter W.,	Moneton, N.B.
	Blaylock, Selwyn G.,	Danville, Q	Dargavel, James S.,	Elgin, O
	Bowman, Archibald A.,		Davidson, William A.,	Peterboro, O

Denis, Leopold,	Montreal	McLean, William B.,	Pictou, N.S
Ewan, Herbert M.,	Montreal	McLeod, Norman M.,	Montreal
Fetherstonhaugh, Edwar	d P., Montreal	Moore, William, M.A.,	Ottawa, O
Fraser, Charles E,	Montreal	Morgan, Charles B.,	Hamilton, O
Fraser, Harold,	Brockville, O	Nicholls, Harry G.,	Toronto, O
	ridgeville, N.S.	Peden, Frank,	Montreal
Gagnon, Louis F.,	Montreal	Pergau, Harry,	Lyn, O
Gisborne, Lionel L.,	Montreal	Pitcher, Norman C.,	Stanstead, Q
Gough, Richard T.,	Halifax, N.S.	Preston, John A.,	Toronto, O
Grier, Arthur G.	Montreal	Shaw, John A.,	Montreal
Hawker, James T.,	St. John, N.B.	Stevens, Angus P.,	Dunham, Q
Hickey, John V.,	Montreal	VanHorne, Richard B.,	Montreal
Hutchinson, William S.,	Montreal	Waller, George W.,	Bartonville, O
Hyde, George T.,	Montreal	Wenger, Edgar I.,	Ayton, O
Hyde, James C.,	Montreal	Whyte, John S.,	Osgood, O
Kirkpatrick, Stafford F.,	Kingston, O	Wilson, Robert M.,	Montreal
MacInnes, Henry W.,	Halifax, N.S.	Yorston, Louis,	Pictou, N.S.
McLaren, Archibald J.,	Montreal	Young, William M.,	Renfrew, O
McLea, Érnest H.,	Montreal	Yuile, Norman M.,	Montreal

### POST GRADUATES.

McCarthy, Geo. A., B.A.Sc., Moneton, N.B.

Outremont, Q Scott, James H.,

### Partial Students.

	Iton, Eng.	Lewis, Francis B., Not	tingham, Eng.
Cunningham, Lawrence H.,	London,	Macdonald, Miss M. L.,	Montreal
- , ,	Eng.		[arrietsville, 0
Harvey, Herbert, Lor	ndon, Eng.	Oulton, George J., M.A.,	Moncton, N.B.
Henry, Arthur R.,	Quebec	Redpath, Miss H.,	Montreal
Hersey, Milton L., B.A.Sc.,	Montreal	Sands, Henry H.,	Montreal
Howden, Miss J.,	Montreal	Scott, George W.,	Montreal
Irwin, Miss M. É.,	Montreal	Sparrow, Miss W.,	Montreal
. ,			

### FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

#### FIRST YEAR.

Boston, Mass. Kennedy, Geo. A., Hemmingford, Q | Rork, John T., Sussex, N.B. Barre, Mass. Manchester, Walter, Tamblyn, David, Berks, Eng. Paquin, Chas. H.,

### SECOND YEAR.

Allen, Frank T., Humphreys, B. F., Smith, W. C.,

Gellatly, Ge Groves, J. W Hammond, E

\$

### Springfield, Mass. Boston, Mass. Winnipeg, Man. Hubbardston, Mass.

#### THIRD YEAR.

eorge,	Huntingdon, Q	Henderson, Colin M.,	Montreal	
V.,	Hamilton, O	Henderson, Colin M., Kato, Y.,	Tokyo, Japan	
E. W.,	Montreal	McGregor, James,	Aubrey, Q	

Fyles, Winifı Gibsone, Geoı Kinnear, Jas.

Fraser, Ella M Nicholson, Wm Reid, A. S.,

Fyles, Faith, Laverie, Jas. H.

Jackson, Emma, Meiklejohn, Harr

Beemer, Miss S., Bishop, Miss B., Duffet, Miss Grace Dunkerly, Miss Co Duplessis, Captain, Forrest, Miss Adah Foulds, Mr. Archib Foulds, Mrs. Archib Fry, Miss, Gibsone, Miss, Glass, Miss K., Graham, Robt. M., Levasseur, Major, Graham, Robt. M., Levasseur, Major, Macdonald, Miss E., MacLeod, Miss Effie, MacNaughton, Mr. F MacRae, Rev. D., MacRae, Mrs. D., MacRae, Miss V., Marsh, Mrs.,

### 342

Pictou, N.S Montreal Ottawa, O Hamilton, O Toronto, O Montreal Lyn, O Stanstead, Q Toronto, O Montreal Dunham, Q Montreal Bartonville, O Ayton, O Osgood, O Montreal Pictou, N S. Renfrew, O Montreal

Dutremont, Q

ngham, Eng-Montreal trietsville, O loncton, N.B. Montreal Montreal Montreal

IND

oston, Mass. Berks, Eng.

ubbardston, Mass.

Montreal kyo, Japan Aubrey, Q

### 343

### COLLEGES AFFILIATED IN ARTS.

Miller, Wm. E. C.,

Raymond, Florence M. C.,

Munn, Emma M.,

Ritchie, Jessie R., Smith, Esther M.,

### MORRIN COLLEGE, QUEBEC.

### Undergraduates.

### FIRST YEAR.

SECOND YEAR.

THIRD YEAR.

Fyles, Winifred, Gibsone, George F., Kinnear, Jas. Alex.,

Fraser, Ella M , Nicholson, Wm., Reid, A. S.,

Fyles, Faith, Laverie, Jas. H.,

Jackson, Emma, Meiklejohn, Harriet T.,

Beemer, Miss S., Bishop, Miss B., Duffet, Miss Grace, Dunkerly, Miss Cora, Duplessis, Captain, Forrest, Miss Adah M., Foulds, Mr. Archibald, Foulds, Mrs. Archibald, Foulds, Mrs. Archibald, Fry, Miss, Gibsone, Miss, Glass, Miss K., Graham, Robt. M., Levasseur, Major, Macdonald, Miss Effie, MacNaughton, Mr. F. MacRae, Rev. D., MacRae, Miss V., Marsh, Mrs., FOURTH YEAR.

Seifert, Fred W.

MacRae, D. N.,

Partial Students.

Pope, Miss B., Pope, Miss Louisa, Poston, Mrs., Reid, Miss, Ritchie, Miss M., Rothney, W. O., Scott, Miss R., Simpson, Miss, Staveley, Miss, Symonds, Wm., Tait, Rev. D., Thomson, Miss, Tremaine, Miss L. L., Tremaine, Miss T. F., Turner, Miss E., Vincent, Miss, Webster, Miss S. R, Walton, Mrs. F. W. Woodside, Mr.

### SUMMARY.

Students in Law. McGill College	67
Students in Law, McGill College " in Medicine, "	447
" Arts : "	
$ \begin{array}{c} Men \\ \begin{cases} Graduates & & & & 4 \\ Undergraduates & & & & & 139 \\ Partial & & & & & 67 \\ \\ Women \\ \begin{cases} Graduates & & & & 8 \\ Undergraduates & & & & 8 \\ Undergraduates & & & & 47 \\ Partial & & & & 31 \\ \end{cases} $	296
(Partial	56
{Undergraduates, {Partial and Graduates}	231
( Partial and Graduates )	15
	1112 158
Deduct, repeated in different lists	$\begin{array}{c}1270\\22\end{array}$
Total	1248

La

Meteorologie  $3^{h} o^{m}$  Eastern series of bi-h series will sh by means of t ployed are tw thermometer; meter; one mi mometers, with wind vane; one one rain-band

F.

The Anemor at a point abou tory. They are above sea level Soil temperat Laboratory, by

from one inch te *The Astronomi*, (6¼ in.); a phot level, etc.; a pris a zenith telescop collimating teles one sidereal chrgraph; batteries, t

Observations fe night. Time signa the noon time-ball and to the countr

The longitude direct telegraphic observers and instr accurately determin

Courses of instru instruments, see pa Year Students in t

### Observatory.

67

296

56

231

15

1112

158

1270

1248

22

447

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39 67

8 47

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Latitude, N. 45° 30' 17". Longitude, 4h 54m 18s. 67.

Height above sea level, 187 ft.

### Superintendent-C. H. McLEOD, MA.E.

Meteorological Observations are made every fourth hour, beginning  $3^{h} o^{m}$  Eastern standard time; also at  $8^{h} o^{m}$  and  $20^{h} o^{m}$ . Independent series of bi-hourly temperature observations are also made. (This series will shortly be replaced by an automatic temperature record by means of the Callendar recorder.) The principal instruments employed are two standard mercurial barometers; one Kew standard thermometer; two Pastorelli thermometers; one maximum thermometer; one set of six self-recording thermometers, with controlling clock, battery, etc.; two anemometers; one wind vane; 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 north-west of the Observatory. They are 57 feet above the surface of the ground and 810 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 (6¼ in.); a photoheliograph ( $4\frac{1}{2}$  in.); a  $3\frac{1}{4}$  in. transit with striding level, etc.; a prismatic (8 c.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 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 with 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 88, and in astronomical work to the Fourth Year Students in the Civil Engineering Courses, see page 123.

### Aniversity Gymnasium.

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 medal 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 medal will not be awarded to any Student who may fail in his examination for the degree.

Classes for Women Students will be conducted in the new gymnasium of the Royal Victoria College by qualified lady instructors.

### 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.

The Principal.

One Member of the Faculty of Arts.

One Member of the Faculty of Applied Science.

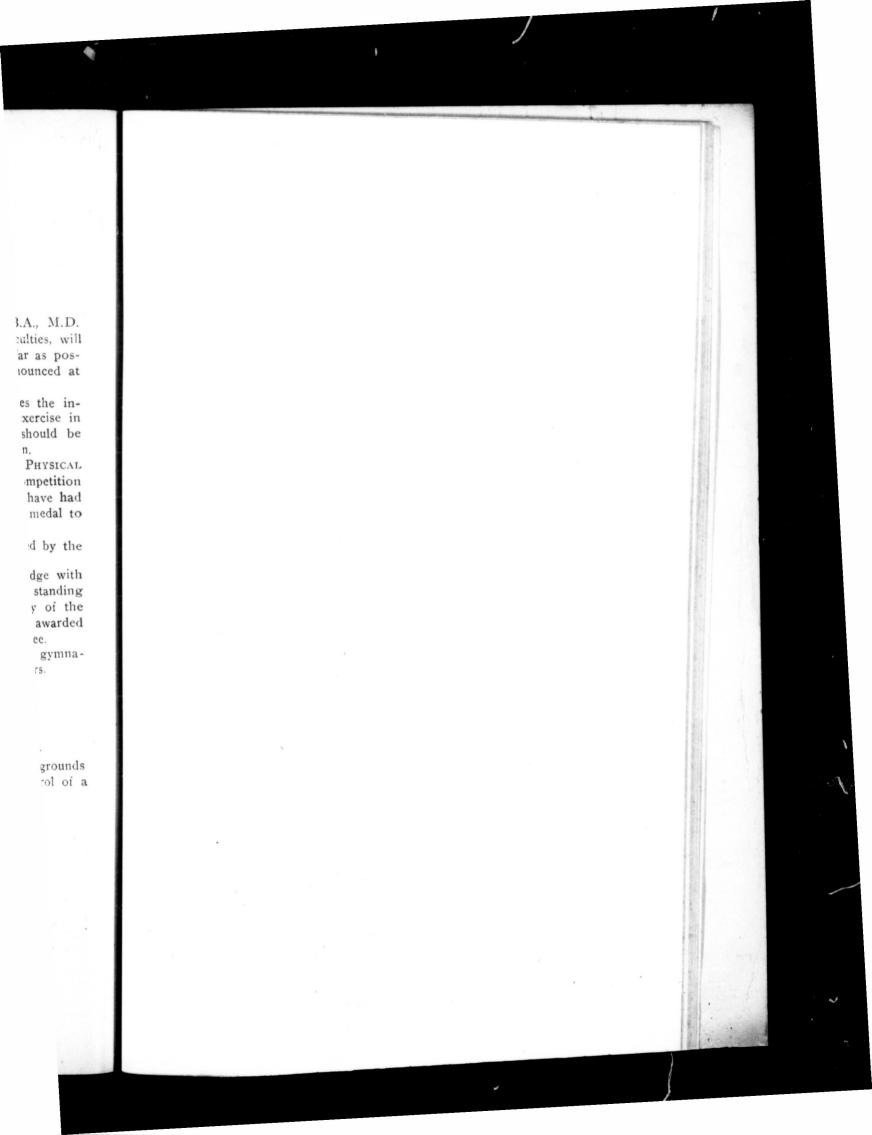
One Member of the Faculty of Law.

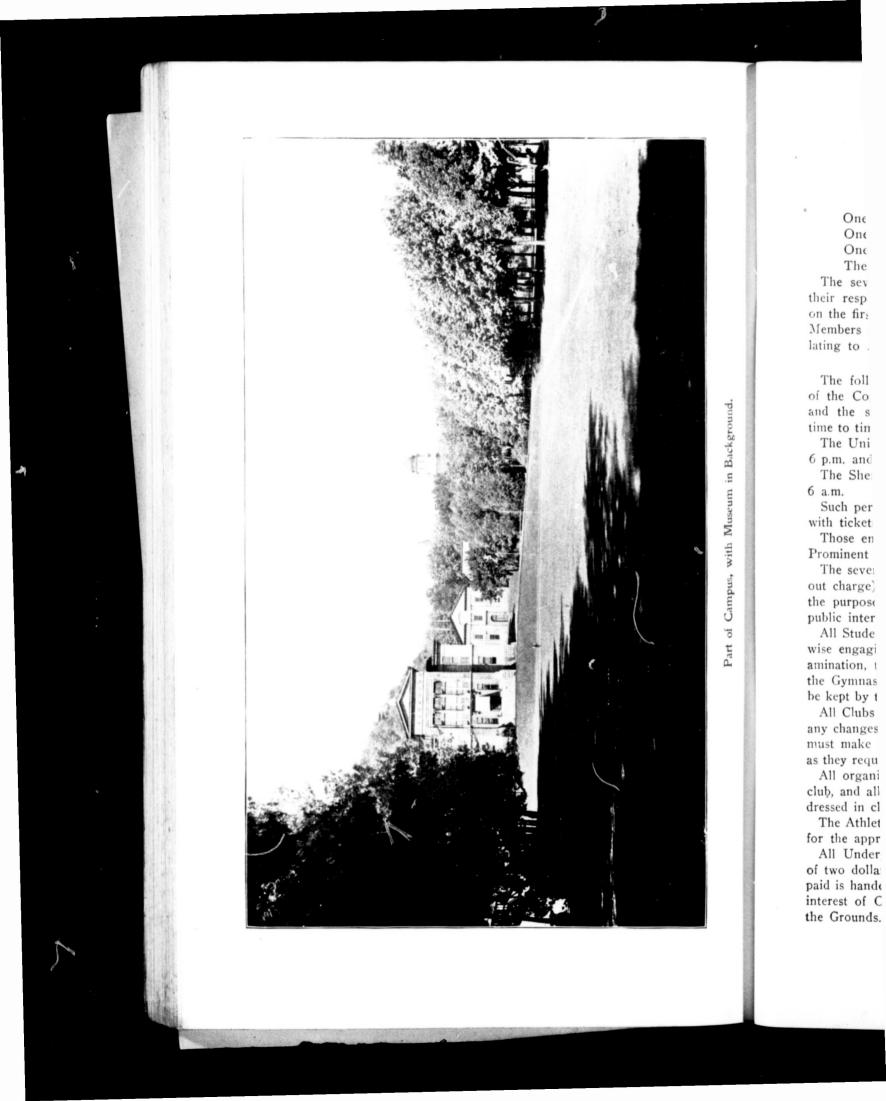
One Member of the Faculty of Medicine.

One Member of the Faculty of Comp. Medicine.

One Graduate.

One Undergraduate, member of the Football Club.





One Undergraduate, member of the Tennis Club. 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 10 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.

All organized games must be under the auspices of a recognized club, and all persons taking part in games on the grounds must be dressed in club costume or "flannels."

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 permanent improvement of the Grounds.

### Aniversity Societies.

### GEADUATES' SOCIETY OF MCGILL UNIVERSITY.

INCORPORATED 24TH JULY, 1880.

### Officers 1898-99.

President-C. W. Colby, M.A., Ph.D.

Vice-Presidents-Miss H. R. Y. Reid, B.A.; Miss C. M. Derick, M.A.; Peers Davidson, M.A.

Secretary—Homer M. Jaquays, B.A., B.A.Sc. Treasurer—Francis Topp, B.A., B.C.L.

Resident Councillors-F. D. Adams, M.A.Sc., Ph.D.; M. C. Baker, D.V.S.; Arch. MacArthur, B.A.; A. R. Holden, B.A., B.C.L.; A. R. Hall, B.A., B.C.L.; Chas. Wilson, M.D.

Non-Resident Councillors—Hon. W. W. Lynch, D.C.L., Knowlton, Que; Rev. E. H. Krans, LL.D., New York; S. J. Tunstall, B.A., M.D., C.M., Vancouver B.C.; W. W. White, M.A., M.D., St. John, N.B.; Robert H. Conroy, B.C.L., Aylmer, Que.; J. J. MacLaren, Q.C., LL.D., Toronto, Ont.

### MCGILL APPLIED SCIENCE SOCIETY.

Hon. President-Dr. H. T. Bovey.

Advisory Committee-Prof. F. D. Adams, J. M. McCarthy, M. L. Hersey, A. L. Mudge, R. F. Ogilvy.

Hon. Sec.-Treasurer-J. G. G. Kerry (Engineering Building, McGill University).

President—R. H. Gillean, Mining and Chemistry, 'oo. 1st Vice-President—J. T. Anglin, Civil and Architecture, 'oo. 2nd Vice-President—J. G. Glassco, Electrical, 'oo.

3rd Vice-President—A. W. MacMaster, Mechanical, '00. Secretary—B. S. McKenzie, '01.

Treasurer-E. E. Palmer, 'or.

and Year Representatives-A. E. Beck and H. E. Scott.

Editorial Board-G. M. Cary, '00, Chairman; S. J. Burgoyne, '00; G. M. Hamilton, '00; H. A. Burson, '01. Vice-Pr

AL

Additional R. Y. Reid,

### OITAWA

Hon. Pr.

Vice-Presid M.A.; E. L. Secretary—H

Council—R. B.A.Sc.; W.

### NEW Y

Pres 1st Vice-F 2nd 1 3rd Vice-Presic Secretary—W Executive Con Geo. C. Becke Non-Resident Bishop of Dulu Wm. Osler, M.1 Kelly, M.D., C. N. Y.; H. Holt

### ALUMNÆ SOCIETY OF MCGILL UNIVERSITY.

President—Georgina Hunter, B.A. Vice-Presidents—Kate M. Campbell, B.A.; Jessie Brown, B.A. Cor. Secretary—Frances R. Angus, B.A. Assistant Cor. Sec.—Muriel Carr, B.A. Rec. Secretary—Elizabeth Hall, B.A. Assistant Rec. Sec.—J. Ethel Hurst, B.A. Treasurer—Eleanor Tatley, B.A.

Additional Members of Committee of Management of Girls' Club-Helen

R. Y. Reid, B.A.; Carrie M. Derick, M.A.; L. Ethel Armstrong, B.A.

### OITAWA VALLEY GRADUATES' SOCIETY OF McGILL UNIVERSITY.

ORGANIZED 1890.

Hon. President—The Right Hon. Sir Wilfrid Laurier, P.C., K.C.M.G., LL.D.

President-William C. Cousens, M.D., C.M.

Vice-Presidents-George C. Wright, B.A., B.C.L.; A. E. Barlow, M.A.; E. L. Quirk, M.D., C.M.

Secretary-H. M. Ami, M.A., D.Sc. (Geological Survey, Ottawa.) Treasurer-J. H. Larmonth, B.A.Sc.

Council-R. W. Ells, LL.D.; R. H. Conroy, B.C.L.; D. B. Dowling, B.A.Sc.; W. Bell Dawson, M.A., Ma.E.; M. F. Connor, B.A.Sc.

### NEW YORK GRADUATES' SOCIETY OF McGILL UNIVERSITY.

ORGANIZED 1895.

President-Rev. Edward H. Krans, M.A., LL.D.

1st Vice-President-Wolfred Nelson, M.D., C.M., F.R.G.S. 2nd Vice-President-James A. Meek, M.D., C.M.

3rd Vice-President and Treasurer—Hiram N. Vineberg, M.D., C.M. Secretary—W. Ferguson, M.D., C.M., 948 E. 166th St. New York.

*Executive Committee*—Rev. J. J. Rowan Spong, M.A., B.C.L., LL.B.; Geo. C. Becket, M.D.; Harcourt Bull, B.A.

Non-Resident Councillors-Right Rev. J. D. Morrison, M.A., D.D., Bishop of Duluth; Rev. Charles Bancroft, M.A., Sanbornville, N.H.; Wm. Osler, M.D., C.M., F.R.C.P.L., F.R.S., Baltimore, Md.; Thomas Kelly, M.D., C.M., Omaha, Neb.; Rev. J. C. Bracq, Vassar College, N. Y.; H. Holton Wood, B.A., Boston, Mass.

)erick,

Y.

Baker, A. R.

lton, B.A., John, .aren,

[. L.

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### MCGILL GRADUATES' SOCIETY OF TORONTO.

350

ORGANIZED 1896.

President—J. J. MacLaren, Q.C., LL.D. 1st Vice-President—H. A. Burritt, M.D. 2nd Vice-President—A. R. Lewis, B.A., Q.C. Secretary—R. B. Henderson, B.A., 48 King Street, West. 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 COLUMBIA SOCIETY OF GRADUATES' OF McG1LL UNIVERSITY.

President-W. A. Carlyle, Ma.E. (Rossland).

Vice-Presidents—J. M. McGregor, B.A., B.A.Sc. (Slocan City); Walter Hunter, B.A. (Nanaimo); Rev. W. Leslie Clay, B.A. (Victoria); Rev. H. M. McIntosh, B.A. (Vancouver).

Secretary-W. J. McGuigan, M.D., LL.B. (Vancouver). Treasurer-Simon J. Tunstall, B.A., M.D. (Vancouver).

*Executive Committee*—D. B. Holden, B.A., M.D. (Victoria); Hon. R. E. McKechnie, M.D. (Nanaimo); G. W. Boggs, M.D. (New Westminster); J. M. Lefevre, M.D. (Vancouver); J. C. Guillim, B.A.Sc. (Slocan City).

### THE NEW BRUNSWICK GRADUATES' SOCIETY OF MCGILL UNIVERSITY.

ORGANIZED 1896.

President-F. H. Wetmore, M.D. (Hampton, N.B.). Vice-President-B. S. Price, M.D. (St. John, N.B.).

Secretary-Treasurer—J. H. Scammel, M.D. (76 Waterloo street,

St. John, N.B.).

Executive Committee-J. H. King, M.D.; W. L. Ellis, M.D.

### NOVA SCOTIA SOCIETY OF MCGILL GRADUATES.

ORGANIZED 1896.

Hon. President—Rev. Robert Laing, M.A. (Halifax). President—John McMillan, M.D. (Pictou).
1st Vice-President—F. S. Yorston, M.D. (Truro).

2nd Vice-President-James Ross, M.D. (Halifax).

Sec.-Treasurer-W. H. Hattie, M.D. (Nova Scotia Hospital for the Insane, Halifax).

Executive Committee-A. I. Mader, M.D.; Wm. Jakeman, D.V.S.; E. A. Kirkpatrick, M.D.; J. W. Clarke, M.D.

### McGILL (

Hon. P Presi Vice-Preside Donald, M.D Sec.-Tre

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Pr. 1st Vice 2nd Vice 3rd Vice. Secretary-Trea. Councillors—H (I M Pa

### UNDE

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Assi Committee—A. Robert Elder, A Arts, '01.

Committee-Kath

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### MCJILL GRADUATES' SOCIETY OF THE DISTRICT OF BEDFORD.

ORGANIZED 1898.

Hon. President—Hon. W. W. Lynch, D.C.L. (Knowlton).
President—Rev. E. M. Taylor, M.A. (Cowansville).
Vice-Presidents—C. A. Nutting, B.C.L. (Waterloo); R. T. E. Mac-Donald, M.D. (Sutton); Hon. J. C. McCorkill, B.C.L. (Cowansville).
Sec.-Treasurer—W. O. Lambly, M.D., C.M. (Knowlton).

### NEW ENGLAND SOCIETY OF MCGILL GRADUATES.

### ORGANIZED 1899.

President—John S. McLennan, B.A. (Boston). 1st Vice-President—G. A. Fagan, M.D. (North Adams). 2nd Vice-President—Arthur E. Childs, B.A.Sc. (Boston). 3rd Vice-President—Rev. J. F. Langton, M.A. (Waltham). Secretary-Treasurer—Charles E. Cameron, M.D., (Box 3271, Boston). Councillors—H. Holton Wood, B.A., (Derby); Jos. Williams, M.D., (Boston); Miles M. Martin, M.D., (Boston); Robert MacDougall, M.A., Ph.D. (Cambridge); John M. Parker, D.V.S. (Haverhill).

### UNDE 3GRADUATES' LITERARY SOCIETY.

CONSTITUTED 1880.

President—Lemuel Robertson, Arts, '99.
1st Vice-President—E. G. Place, Law, '01.
2nd Vice-President—J. Appleton Nutter, Arts, '00.
Treasurer—D. M. Rowatt, Law, '01.
\*Secretary—C. J. Macmillan, Arts, '00.
Assistant Secretary—G. L. Ogilvie, Arts, '02.

Committee—A. R. McMaster, B.A., Law, '01; F. S. Patch, Arts, '99; Robert Elder, Arts '00; E. E. Brown Arts, '01; W. G. Macnaughton, Arts, '01.

### DELTA SIGMA SOCIETY.

ESTABLISHED 1884.

President-Mary H. Dey.

Vice-President-Evelyn Molson.

Sec-Treasurer-Elizabeth Irving. Committee-Kathleen Finley, B.A.; Winifred Bennett; Isabel Radford.

### MCGILL COLLEGE CLASSICAL CLUB.

For the purpose of fostering a greater interest in and promoting the further study of Classical Languages, Literature and Art. *Hon. President*—Principal Peterson. *Hon. Treasurer*—Prof. A. Judson Eaton, Ph.D.

President-

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### MCGILL HISTORICAL CLUB.

352

President—Ed. C. Woodley, Arts, '00. Vice-President—E. G. Place, B.A., Law, '01. Secretary—H. S. Williams, Arts, '01. Executive Committee—Prof. C. W. Colby, M.A., Ph.D.; J. DeWitt, Arts, '00; W. S. Chipman, Arts, '01.

### THE MCGILL MINING SOCIETY.

ORGANIZED 1891.

Hon. President—Dr. B. J. Harrington. President—G. P. Macmillan, App. Sc., '00. Vice-President—F. Cowans, App. Sc., '00. Scc.-Treasurer—A4 R. Archer, App. Sc., '01.

### YOUNG MEN'S CHRISTIAN ASSOCIATION OF MCGILL UNIVERSITY.

OBJECT.—To promote the piety of its members and the cause of Christianity in the University.

MEMBERSHIP.—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 1899-1900.

Hon. President—Sir J. W. Dawson.
President—E. C. Woodley, Arts, 1900.
1st Vice-President—J. R. Cox, Med., 1900.
2nd Vice-President—H. A. Burson, App. Sci., 1901.
Rec. Secretary—A. E. Doull, Med., 1900.
Treasurer—W. H. DeBlois, App. Sc., 1901.
Assist. Treasurer—L. M. Curran, Med., 1902.
General Secretary—George Irving, Arts, 1901.

### CHAIRMEN OF COMMITTEES.

Religious Meetings—Prof. H. F. Armstrong.
Bible Study—W. G. MacNaughton, Arts, 1901.
Social—F. J. Tees, Arts, 1901.
Membership—J. R. Cox, Med., 1900.
Missionary—C. McPherson, Med., 1900.
Musical—A. E. Doull, Med., 1900.
Finance—W. H. DeBlois, App. Sci., 1901.
Work for New Students—Geo. Irving, Arts, 1901.
Building—E. C. Woodley, Arts, 1900.
Graduates—W. F. Hamilton, M.D.

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H Presi Vice-Hon Treas Committee—Art: A. R. Hall, '00, 1 '01; Applied Sc.:

### YOUNG WOMEN'S CHRISTIAN ASSOCIATION.

353

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 stadents of the Royal Victoria College for Women.

SESSION 1899-1900.

President—Edythe Garlick. Vice-President—Winifred Bennett. Cor. Secretary—Lillian Smith. Rec. Secretary—Elizabeth Irving. Treasurer—Jessie McLachlan.

CONVENERS OF COMMITTEES.

Devotional-Mary H. Dey. Theo Dora-Harriet Page. Membership-Lillian Smith. Relief-Helen Rorke.

### MCGILL UNIVERSITY ATHLETIC ASSOCIATION.

ESTABLISHED 1884.

Hon. President—Principal Peterson.
President—Percy Molson, Arts, 'oi.
Vice-President—P. F. Sise, App. Sc., 'oo.
Secretary—P. W. K. Robertson, App. Sc., 'oo.
Hon. Treasurer—Prof. S. H. Capper.
Treasurer—C. J. Macmillan, Arts, 'oo.
kepresentatives—Arts: J. Henry Boulter, 'oi Applied Science: A. F.
MacMaster, 'oo; Medicine: W. B. McDiarmid, 'oo; Law: A. Dobell, 'oo.

### MCGILL UNIVERSITY FOOTBALL CLUB.

Hon. President—Dr. N. D. Gunn.
Hon. Treasurer—Prof. C. H. McLeod.
President—A. C. P. Howard, B.A., Med., 'o1.
Vice-President—W. G. Turner, B.A., Med., 'oo.
Hon. Secretary—F. S. Patch, B.A., Med., 'o3.
Treasurer—H. W. Trenholme, App. Sc., 'o2.
Manager—A. F. Byers, App. Sc., 'oo.
Committee—Arts: E. G. McKinnon, 'oo, P. Molson, 'o1; Medicine:

A. R. Hall, '00, D. Mackay, '01; Law: J. J. Meagher, '01, W. Leslie, '01; Applied Sc.: P. F. Sise, '00, A. E. Beck, '02.

J. DeWitt,

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### MCGILL UNIVERSITY CRICKET CLUB.

354

 Hon. President—Lord Strathcona and Mount Royal. President—Prof. C. E. Moyse. Vice-President—A. R. Oughtred, B.C.L. Sec.-Treasurer—Herbert M. Little, Med., 'oi. Assist. Secretary—Hugh W. Wonham. Committee—A. B. Wood, B.A.; John F. Mackie, B.C.L.; R. DeL. Johnson, Med., 'oi; R. Kane, App. Sc., 'oi; H. Cyril Hill.

### MCGILL UNIVERSITY LAWN TENNIS CLUB.

Hon. President—Prof. Capper.
President—J. A. Fairie, Med., '02.
Vice-President—L. Maefarlane, Law, '00.
Secretary—A. R. Holden, Law, '01.
Treasurer—E. A. Grafton, M.D.
Committee—Arts: R. Hickson; Law: J. J. Meagher; App. Sc.: J. E. K.
Osborne; Medicine: J. L. Todd; Graduates: J. K. Kennedy B.C.L.

### MCGILL UNIVERSITY SKATING CLUB.

President—F. S. Patch, Arts, '99. Vice-President—C. F. L. Haszard, Med., '00. Secretary—A. Lorne C. Gilday, Arts, '99. Treasurer—R. Hickson, Arts, '01.

Committee—Medicine: F. Haszard, '00, A. H. Marlaren, '02, A. L. C. Gilday, '00; Applied Science: N. M. Yuile, '99, T. T. Black, '00; A. F. MacMaster, '00; Arts: F. S. Patch, '99, C. G. MacKinnon, '00, R. Hickson, '01; Law: J. J. Meagher, '01, G. H. Baker, '00; Comp. Med.: B. F. L. Humphreys, '00, W. Smith, '00.

### MCGILL HOCKEY CLUB.

Hon. President—Professor Capper. President—C. Cartwright, Med., 1900. Vice-President—C. K. Russel, Med., '01. Sec.-Treasurer—J. H. Jones, Med., '01. Captain—R. Howard, App. Sc., '01.

Representatives—Applied Science: Geo. Montgomery, '00; Yuile, '99; Medicine: E. R. Belanger, '01; Patterson, ; Arts: G. W. Grier, '00; J. H. Copeman, '01; Law: S. G. Archibald, '00; H. Baby '99. THE HON and did date 8t of Mon and Bu pounds ing," a the For erect ar the adva petent r tual an colleges petually The value of quest at

THE WILLIAM with the the muni THE PETER R announce opened A Lots for Univ Tavish St THE UNIVERSIT by him as 31st, 1893 UNIVERSITY OF Principal Esq., in 18

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4. ENDO

In 1883, a Gold. M.A., LL.D Graduating University Silver and B

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### BENEFACTORS OF McGill Aniversity, Montreal.

### I. GENERAL ENDOWMENTS AND SUBSCRIPTIONS.

### 1. ORIGINAL ENDOWMENT, 1811.

### 2. UNIVERSITY BUILDINGS, ETC.

THE WILLIAM MOLSON HALL, being the west wing of McGill College buildings, with the connecting Corridors and Class Rooms, was erected in 1861, through the munificent donation of the founder, whose name it bears.

- the munificent donation of the founder, whose name it bears. THE PETER REDPATH MUSEUM, the gift of the donor, whose name it bears, was announced by him as a conation to the University in 1880, and formally opened August, 1882.
- Lots for University buildings adjoining the College grounds confronting on Me-Tavish St., presented by J. H. R. Molson, Esq., -\$42,500. THE UNIVERSITY LIBRARY BUILDING, the gift of Peter Redpath, Esq., announced
- THE UNIVERSITY LIBRARY BUILDING, the gift of Peter Redpath, Esq., announced by him as a gift to the University in 1891, and formally opened October 31st, 1893.

UNIVERSITY OFFICES, Rooms in East Wing remodeled and furnished for offices of Principal and Secretary and for a Board Room, by Wm. C. Macdonald, Esq., in 1895.

### 3. ENDOWED CHAIRS, 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.

THE WILLIAM C. MACDONALD AUXILIARY FUND, founded in 1897 by Wm. C. Macdonald, Esq., the interest to be used solely to maintain the income of certain of his endowments on a five per cent. per annum basis, -\$278,750.

### 4. ENDOWMENTS AND DONATIONS OF MEDALS AND PRIZES.

In 1883, a Gold, a Silver and a Bronze Medal were given by R. J. Wicksteed, Esq., M.A., LL.D., for competition in "Physical Culture," by Students in the Graduating Class and second year of any Faculty, who have attended the University Gymnasium. The Gold Medal was continued to 1889 and the Silver and Bronze have been continued to date.

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 McGill University to be divided amongst the five Faculties. Annual value \$50.00. Given annually since 1896.

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### 5. SUBSCRIPTIONS TO GENERAL ENDOWMENT.

### 1856

100	
John Frothingham, Esq\$2000	Forward \$19,200
John Torrance, Esq 2000	Moses E. David, Esq 600
James B. Greenshields, Esq 1200	Wm. Carter, Esq 600
Wm. Busby Lambe, Esq 1200	Thomas Patton, Esq 600
Sir George Simpson, Knight 1000	Wm. Workman, Esq 600
Henry Thomas, Esq 1000	Hon. Luther H. Holton 600
John Redpath, Esq 1000	
	interior in the second s
James McDougall, Esq 1000	David Torrance, Esq 600
James Torrance, Esq 1000	Edwin Atwater, Esq 600
Hon. James Ferrier 1000	Theodore Hart, Esq 600
Harrison Stephens, Esq 800	Wm. Forsyth Grant, Esq 600
Henry Chapman, Esq 600	Robert Campbell, Esq 600
Hon. Peter McGill 600	Alfred Savage, Esq 600
John James Day, Esq 600	James Ferrier, jun., Esq 600
Thomas Brown Anderson, Esq 600	Wm. Stephen, Esq 600
Peter Redpath, Esq 600	N. S. Whitney, Esq 600
Thomas M. Taylor, Esq 600	William Dow, Esq 600
Joseph Mackay, Esq 600	William Watson, Esq 600
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Hon. Sir John Rose 600	Hoo. Sir A. T. Galt
Charles Alexander, Esq 600	John R. Esdaile, Esq 200
	- againer
Forward \$19,200	Total\$30,560

### 1871.

John Frothingham, Esq	\$5150
William Molson, Esq	5000
William C. Macdonald, Esq	5000
Thomas Workman, Esq	5000
J. H. R. Molson, Esq	2000
John McLennan, Esq.	1000
B. Gibb, Esq	600
Messrs. A. & W. Robertson	600

Forward ......\$24,350

Forward ......\$21.000

### 1881-82.

Hugh McLennan. Esq \$5000	Forward \$21,000
G. A. Drummond, Esq 4000	O. S. Wood, Esq 1000
George Hague, Esq 3000	J.B. Greenshields, Esq. (London) 1000
M. H. Gault, Esq 2000	Warden King, Esq 1000
Andrew Robertson, Esq 1000	W. P. Cumming, Esq 1000
Robertson Campbell, Esq 1000	Mrs. Hew Ramsay 500
Sir Jos. and Lady Hickson 1000	R. A. Ramsay, Esq 500
Mrs. Andrew Dow 1000	H. H. Wood, Ésq 500
Alexander Murray, Esq 1000	James Burnett, Esq 500
Miss Orkney 1000	Charles Gibb, Esq 500
Hector McKenzie, Esq 1000	J. S. McLuchlan, Esq 200

Total ..... \$27,700

Forward ...... \*\$24,350

300

250 100

100 60

50

T. W. Ritchie, Esq..... Messrs. Sinclair, Jack & Co..... John Reddy, M.D....

Wm. Lunn, Esq ..... Hon. F. W. Torrance.....

Wm. Rose, Esq .....

Total .....\$25,210

### 1883-84.

Edward Mackay, Esq ..... \$5,000

Hon. Robert Jonathan He Geo. M. King David J. Gre Thomas Crai John Rankin John Dunca George Brush Robert Benny Miss E. A. Ra Hugh Paton, J.; M. Douglas James Court,

John H. R. Mo Wm. C. Macdor Peter Redpath, Hon. Sir D. A. Hon. James Fe Sir Joseph Hicl Hugh McLenna E. B. Greenshie George Hague, John Molson, E Samuel Firley, Mrs. Mackay, \$

9. SUB2 CRIP

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Principal I J. H. R. M George Stel Hon. Donal David Morr Messrs. Gau Messrs. S. H

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> \$19,200 600 ••• 600 ••• 600 ... 600 ... 600 •• 600 •• 600 ... 600 •• 600 •• 600 •• 600 •• 600 •• 600 . 600 600 •• 600 •• 600 •• 600 •• 360 ·• 200 \$30,560 24,350 300 •• 250 . 100 • 100 . 60 50 25,210 1000 1000

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### 6. ENDOWMENT FUND FOR GENERAL PURPOSES.

### 1897.

### Bequest of the late John H. R. Molson, Esq., \$100,000.

### 7. SUBSCRIPTION FOR IMPROVEMENTS TO COLLEGE, 1856.

Hon. Charles Dewey Day ......\$200.

### 8. SUBSCRIPTION FOR CURRENT EXPENSES, 1881-82.

Principal Dawson						\$1000
J. H. R. Molson		per annum				
George Stephen, Esq	1000	1 6c	"	44		
Hon. Donald A. Smith	1000	46	66	66		
David Morrice, Esq	200	66	"			1000
Messrs. Gault Brothers & Co	200	**	""	44		1000
Messrs. S. H. & A. S. Ewing	200		"	**	•••••	
Hon. Robert MacKay	300	"	<b>2</b>	"		600
Jonathan Hodgson, Esq	100		5	"		500
Geo. M. Kinghorn, Esq	100	44	44	66		500
David J. Greenshields, Esq						300
Thomas Craig, Esq	100	66	<b>2</b>	66		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, b	eing					100
J. M. Douglas, Esq						50
James Court, Esq					••••	50

Total......\$22,025

### 1887-88.

John H. R. Molson, Esq	\$1000	per	annum,	3 years,	being	\$ 3000
Wm. C. Macdonald, Esq	1000	•	"	"		 3000
Peter Redpath, Esq	1000		"	**	46	 3000
Hon. Sir D. A. Smith, K.C.M.G.	1000		"	"	46	 3000
Hon. James Ferrier	500			**	66	 1500
Sir Joseph Hickson	500		46		66	 1500
Hugh McLennan, Esq.	250		4.			 750
E. B. Greenshields, Esq	250		"	44	66	 750.
George Hague, Esq	250		"	"	" "	 750
John Molson, Esq	250		66	66	"	 750
Samuel Finley, Esq	250		"	**	**	 78.0
Mrs. Mackay, \$106 annually, 1889 to	1893	••••				 500

Total......\$19,250

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### 9. SUB2 CRIPTION BY MEMBERS OF BOARD OF GOVERNORS, IN 1898-99, -\$191,000.

### 10. SUBSCRIPTIONS FOR A BUILDING FOR THE CARPENTER COLLEC-TION OF SHELLS.

358

### 1868.

Peter Redpath, Esq \$	500	Forward	1,600
William Molson, Esq	500	Geo. H. Frothingham, Esq	100
Harrison Stephens, Esq	100	Wm Dow, Esq	100
Robert J. Reekie, Esq	100	Thomas Rimmer, Esq	100
John H. R. Molson, Esq	100	Andrew Robertson, Esq	100
Sir Wm. E. Logan, F.R S	100	Mrs. Redpath	100
John Molson, Esq	100	Benaiah Gibb, Esq	50
Thos. Workman, Esq., M.P	100	Hon. John Rose	50

### Forward ..... \$ 1,600

### Total.....\$ 2,200

### 11. SUBSCRIPTIONS FOR THE ERECTION OF THE LODGE AND GATES.

William Molson, Esq\$	100	Forward \$	
John H. R. Molson, Esq	100	John Frothingham, Esq	100
William Workman, Esq	100	James A. Mathewson, Esq	100
Joseph Tiffin, jun., Esq	100	Peter Redpath, Esq	100
Thos. J. Claxton, Esq	100	G. H. Frothingham, Esq	100
James Linton, Esq	100	G. D. Ferrier, Esq	100
William McDougall, Esq	100	John Smith, Esq	100
Charles J. Brydges, Esq	100	Charles Alexander, Esq	100 -
George A. Drummond, Esq	100	J. Evans, Esq	100
Thomas Rimmer, Esq	100	Henry Lyman, Esq	50
William Dow, Esq	100		
, 1		Total \$	1,950
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### Total.....\$ 1,100

### 12. LIBRARY AND MUSEUM.

### Special Collections of Books presented to the Library.

- 1. The Peter Redpath Collection of Historical Books, presented by Peter Red-
- path, Esq., of Montreal, 3,500 Volumes, with subsequent additions.
  2. The Robson Collection of works in Archaeology 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.
- The Online's Alexander Concerton of Constant Works, presence as Alexander, Esq., of Mostreal, 221 Volumes.
   Frederick Griffin, Esq., Q. C., Collection of Books, being the whole of his Library, bequeathed by his will, 2,695 Volumes.
   The Hon Mr. Justice Mackay, Collection of Books, being the whole of his Ultrary 2007 Volumes.
- Library, 2,007 Volumes.
  6. The "T. D. King Shakespeare Collection," presented by the Hon. Sir Donald A. Smith and W. C. Macdonald, Esq., of Montreal, being 214 Volumes.
- 7. The Ribbeck Library of Classical Literature, presented by Sir W. C. Macdonald, about 4,000 works.

### Endowments for Library.

Wm. Molson, Esq., for Endow-	Forward\$ 6,000
ment of a Library Fund (1871)\$ 4,000	A friend, by the Hon. F. W. Tor-
Hon. F. W. Torrance for Endow-	rance, for Endowment of a
ment of Mental, Moral and Poli-	Library Fund (1882) 400
tical Philosophy Book Fund	Hugh S McLennan, Library En-
(1876)	dowment, a gift from Estate
Mrs. Redpath, for the Endow-	late Hugh S. McLennan to the
ment of the Wm. Wood Red-	Library of McGill College, the
path Memorial Fund (1881) 1,000	income to be applied to bind-
	ing (1892) 250
Forward \$ 6,000	
	Total \$ 5,650

John Thorb Books..... Andrew Dri plied Scie The Gradua plied Sciel chase of E do The late R. Bequest fo (1887) ..... Andrew Dru Library F Applied Sc Hon. Sir Dor purchase o R. W. Bood Ottawa Valle ciety, for bi University

> 1. The Holm 2. The Carpe Ph.D.

3. The Colle

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5. The Logar

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6. The Dawso

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7. The Bowles and J. H.

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Annual Rej

Wm. Molson, Esq.

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### Subscriptions, etc., to Library.

John Thorburn for purchase of		
Books\$	90   Pet	er
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The late R. A. Ramsay, Esq.,	I	nati
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Library Fund of Faculty of	Joł	n l
Applied Science	25 I	ur
Hon. Sir Donald A. Smith, for		Lib
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University Library	25 4	our
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Peter Redpath, Esq., in aid of
the new catalogue of the Li-
brary (1892) 500
Mrs. Peter Redpath for main-
tenance of Library, \$5,000 per
annum since 1894 25,000
Hon. Sir Donald A. Smith, do-
nation for the purchase of
books for the Library, particu-
larly in the French Depart-
ment (1897) 250
John H. R. Molson, donation for
purchase of books for the
Library (1897) 195
Hon. Treas. Redpath Memorial
Fund, London, England. The
rand, Bondon, England. The

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ance remaining over of the ve fund to be used for chase of books for the Liry..... 47

Total .....\$27,416

Special Collections presented to the Museum.

- 1. The Holmes Herbarium, presented by the late Andrew F. Holmes, M.D.
- 2. The Carpenter Collection 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 McCulloch Collection of Birds and Mammals, coltedlec 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.
  - 6. The Dawson Collection in Geology and Palæontology, being the Private Collections of Frincipal Dawson, presented by him to the Museum.
  - 7. The Bowles Collection of Lepidoptera, presented by W. C. Macdonald, Esq., and J. H. Burland, Esq.
  - 8. R. Morton Middleton, jr., London, Eng., Collection of Plants.
  - 9. Collection of Butterflies, presented by the Members of the Board of Governors of the University.
- 40. Collection of Lepidoptera, presented by Sir W. C. Macdonald, (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

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### Subscriptions, etc., for the Museum.

T. J. Claxton, Esq., for pur-	Forward \$20,483
chase of Specimens for Mu-	A Lady, for Museum expenses
seum \$ 250	from 1882 to 1894 7,000
Peter Redpath, Esq., for Mu-	A Friend for the purchase of
seum expenses, \$1,000 per	Specimens for the Museum 4,300
annum from 1882 to 1893 12,000	John H. R. Molson, for purchase
Mrs. Peter Redpath, for Museum	of books on "Butterflies of
expenses, 1894 to 1897 7,000	Eastern U. S. and Canada'' 50
Mrs. H. G. Frothingham for the	Hon. Sir Donald A. Smith, for
arrangement of Dr. Carpen-	mounting skin and skeleton
er's Collection of Mazat-	of Musk Ox 150
lan shells 233	
Peter Redpath, Esq., for im-	Total\$31,983
provements to Museum (1891) 1,000	
Forward \$20,483	

### 13. MISCELLANEOUS.

Chas. T. Blackman, Esq., of Montreal, the gift of a Telescope and Astronomical Instruments called after his name. J. R

J.	Arnton bequ	lest to McGill	l University (1895).		\$	900
. A	. Ramsay, M	4. A., B. C.	L., to defray the e	xpenses of re-	erecting the	
	tomb of th	late Hon. J	ames McGill (1877)	)		150

### 14. UNIVERSITY PORTRAITS 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 Marshall Wood, presented by Graduates of the University.

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 Peter McGill, presented (through Mr. A. T. Taylor), by Judge Parker,

of Edinburgh. 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.

Portrait of Peter Redpath. Esq., by Robert Harris, presented by Friends and Undergraduates of the University

Portrait of Mrs. Peter Redpath, by Robert Harris, presented by the Governors of the University

Portrait of John H. R. Molson, by Robert Harris, presented by the Governors of the University.

II. El

THE MOLSON the Hor Esq.--\$ with a f THE PETER Philosop THE LOGAN F.R.S., a THE JOHN FI dowed b with a fur THE MAJOR H of the lat THE DAVID J. ulties of the late D half of w THE WILLIAM Applied S. in 1893,--THE CHARLES

THE WILLIAM ( Arts and A by him as 1893. THE W. C. MA Arts and A THE KINGSFORD \$50,000.

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### **II. ENDOWMENTS AND SUBSCRIPTIONS FOR THE** FACULTY OF ARTS.

### 1. BUILDINGS, CHAIRS, ETC.

### Endowment Fund, 1856.

#### John Gordon McKenzie, Esq., \$2.000 Ira Gould, Esq., 2.300

### Total, \$4,300

- THE MOLSON CHAIR OF ENGLISH LANGUAGE AND LITERATURE, in 1856, endowed by the Honorable John Molson, Thomas Molson, Esq., and William Molson, Esq.--\$20,000; and supplemented in 1892 by John H. R. Molson, Esq., with a further sum of \$20,000. Total, \$40,000. THE PETER REDPATH GHAIR OF PURE MATHEMATICS (founded as Chair of Natural
- Philosophy), in 1871, endowed by Peter Redpath, Esq., \$20,000. THE LOGAN CHAIR OF GEOLOGY, in 1871, endowed by Sir W. E. Logan, LL.D.,
- F.R.S., and Hart Logan, Esq. \$20,000. THE JOHN FROTHINGHAM CHAIR OF MENTAL AND MORAL PHILOSOPHY, 1873, en-
- dowed by Miss Louisa Frothingham, \$20,000, and supplemented in 1891 with a further sum of \$20,000. Total \$40,000. THE MAJOR HIRAM MILLS CHAIR OF CLASSICS, in 1882, endowed by the last will
- of the late Major Hiram Mills of Montreal,-\$42,000.
- THE DAVID J. GREENSHIELDS CHAIR OF CHEMISTRY AND MINERALOGY in the Fac-ulties of Arts and Applied Science, in 1883, endowed by the last will of ulties of Arts and Applied Science, in 1865, 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 Arts. THE WILLIAM C. MACDONALD CHAIRS OF PHYSICS, in the Faculties of Arts and Arts and Applied Science, in 1865, endowed by the last will be a set of the set o
- Applied Science, endowed by William C. Macdonald, Esq., in 1890, -\$50,000;
   in 1893, -\$50,000. Total, \$100,000.
   THE CHARLES GIBB BOTANICAL ENDOWMENT, subscriptions received to date:

A Friend,-\$8,000. 200. Total, \$8,200.

Mrs. Catherine Hill .-

THE WILLIAM C. MACDONALD Physics Building and Equipment, in the Faculties of Arts and Applied Science. The gift of William C. Macdonald, Esq., announced by him as a gift to the University in 1890, and formally opened February, 1893.

THE W. C. MACDONALD PHYSICS BUILDING Maintenance Fund in the Faculties of Arts and Applied Science, endowed by W. C. Macdonald, Esq., -\$150,000. THE KINGSFORD CHAIR OF HISTORY, endowed by Wm. C. Macdonald, Esq., in 1898,

\$50,000.

### 2. ENDOWMENT FOR PENSION FUND.

This endowment was given in 1894 to be invested and the revenue used exclusive-ly for providing Pensions or Retiring Allowances for members of the teaching staff of the Faculties of Arts and Applied Science.

Hon, Sir Donald A. Smith	\$50,000
John H. R. Molson	50,000
William C. Macdonald, Esq	50,000
-	

Total ...... \$150,000

### 3. EXHIBITIONS AND SCHOLARSHIPS, ETC.

THE JANE REDPATH EXHIBITION, in the Faculty of Arts,-founded in 1868, by Mrs. Redpath, of Terrace Bank, Montreal, and endowed with the sum of \$1,667. THE MACDONALD SCHOLARSHIPS AND EXHIBITICNS, 10 in number, in the Feculty of Arts-founded in 1871, and endowed in 1882 with the sum of \$25,000 by William C. Macdonald, Esq.

THE CHARLES ALEXANDER SCHOLARSHIP, for Classics-founded in 1871 by Charles Alexander, Esq. Endowed in 1893 with the sum of \$2,000.

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- 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 \$2,000.
- THE GEORGE HAGUE EXHIBITION-founded in 1881-Annual value \$125.
  - THE MAJOR HIRAM MILLS MEDAL 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. STUART-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 three Sessions, terminated 1886 87-\$350.

HER 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 CARPENTER FELLOWSHIP—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 for three tuitions in the Faculty of Arts for sessions 1892-93 1893-94.

THE NEW YORK GRADUATE SOCIETY EXHIBITION-a gift of \$60 annually since 1897, for an Exhibition in the Faculty of Arts to be associated with the name of Sir William Dawson.

To provide Bursaries in the Faculty of Arts, 1898, subscriptions from W. W. Ogilvie ......\$1,000

Hugh McLennan..... 120

D. Macmaster..... 120

4. ENDOWMENTS AND DONATIONS OF MEDALS AND PRIZES

- In 1856 Henry Chapman, Esq., founded a gold medal, to be named the "Henry Chapman 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. In 1864 the "Anne Molson Gold Medal" was founded and endowed by Mrs. John
- Molson, of Belmont Hali, Montreal, for an Honour Course in Mathematics and Physics.
- In the same year the "Shakespeare Gold Medal," for an Honour Course, to com-prise 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 three hundredth anniversary of the birth of Shakespeare.
- In the same year the "Logan Gold Medal" for an Honour Course in Geology and Natural Science was founded and endowed Ly 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 continued 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; continued till 1883.

In 1884 a Gol Lansdowi Faculty o Continue In 1889 a Gold Governor. Arts, the till 1893 THE " CHARLE nually by In 1894 a Gol Aberdeen, Faculty of Continued In 1899 a Gold : Governor-G the latter f

5. SUBSCRIPT

Principal Daws Hon. Sir D. A. J. H R. Molson Mrs. J. H. R. Me G. Hague, Esq ... Mrs. Redpath .... Hugh McKay, E Robert Moat, Es Wm. C. Macdon Charles Gibb, Es Miss Orkney..... Robert Mackay, Mrs. Wm. Molso Mrs. John Molson John Stirling, Es Warden King Es Miss Hall. ..... Robert Angus, Esc D. A. P. Watt, Esc Hugh McLennan, Sir Joseph Hickso Mrs. Phillips ......

Hugh McLennan, H Gilman Cheney, Es James Johnston, Es James Slessor, Esq A friend..... Hugh Graham, Esq. A. F. Gault, Esq. ... W. T. Costigan, Esq Jonathan Brown, Es

Forward .....

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- 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 1889 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. Continued till 1893.
- In 1895.
  THE "CHARLES G. COSTER MEMORIAL PRIZE" for general proficiency—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, 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 1802. Continued till 1898.
- In 1899 a Gold and a Silver Medal were given by His Excellency the Earl of Minto, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science.

### 5. SUBSCRIPTIONS FOR THE SUPPORT OF THE CHAIR OF BOTANY, 1883-84.

Principal Dawson	\$500	per annum,	for 5	years. 1	eing	\$2,500
Hon. Sir D. A. Smith	250	" "	44	"		1,250
J. H R. Molson, Esq.,	100	4.6	66			500
Mrs. J. H. R. Molson	100	44	4 6	٤.		500
G. Hague, Esq	100			44		500
Mrs. Redpath	100	64	**			500
Hugh McKay, Esq	100		6.	**		500
Robert Moat, Esq	100	**		64		500
Wm. C. Macdonald, Esq	100	66	44	6.		500
Charles Gibb, Esq	50	"	"			250
Miss Orkney	50	* *		••		250
Robert Mackay, Esq	50		٤.	44		250
Mrs. Wm. Molson	50		6.6	.4		250
Mrs. John Molson	50	· ·	66	44		250
John Stirling, Esq	50	٤.	44			250
Warden King Esq	50	* *	44	66		250
Miss Hall.	50	66	44	6.		250
Robert Angus, Esq	50		66	44		250
D. A. P. Watt, Esq	50	4.6	.4	44		250
Hugh McLennan, Esq	25		44	44		125
Sir Joseph Hickson	10	44	46	٤.		50
Mrs. Phillips						20

\$9,945

170

### 6. BOTANIC GARDEN, ETC.

### Subscriptions, 1890-91.

Hugh McLennan, Esq	\$100	Forward	\$900
Gilman Cheney, Esq	100	Jonathan Hodgson, Esq	100
James Johnston, Esq	100	Robert Mackay, Esq	100
James Slessor, Esq	100	H. Shorey, Esq	50
A friend		J. S. Shearer, Esq	50
Hugh Graham, Esq	100	Geo. Sumner, Esq	25
A. F. Gault, Esq	100	A. Ramsay & Co	25
W. T. Costigan, Esq		Garth & Co	25
Jonathan Brown, Esq			

Forward ..... \$900

Total..... \$1,275

### To Erect Plant House in Botanic Garden.

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Hon. Sir Donald A. Smith	\$362	00
John H. R. Molson, Esq.	361	
William C. Macdonald, Esq	361	02

### Total..... \$ 1,084 53

### 7. SUBSCRIPTIONS IN AID OF THE CHAIR OF HEBREW.

1. BUBBORITIONS IN A	ILD OF	THE C	main	or ner	DUDW	
Warden King, Esqin	1889	\$50 per	annum,	3 years	being	 \$150
Principal Sir William Dawson	44	50	46		"	 150
Hon. Hugh Mackay	66	50	44	66	66	 150
A. F. Gault, Esq	46	25	. 6	44	" "	 75
Geo. Hague, Esq	44	25	"	"	44	 75
T A. Dawes, Esq	66	25	"	**	. 6	 75
S. Carsley, Ésq	44	25	44	44	66	 75
S. Davis, Esqin	1892					 20
Warden King, Esq	"	50 pe	r annun	a for 3 y	ears	 150
A. F. Gault, Esq	64	50	46	"	44	 150
Robert Mackay, Esq	4.	50	44	"	"	 150
Hugh McLennan, Esq	44	25	44	44	66	 75
George Hague, Esq	"	25	**	44	**	 75
T. A. Dawes, Esq	64	25	66	44	" "	 75
S. Carsley, Esq	44					25
J. Murphy, Esq	44					 25

Total. ..... \$1,495

### 8. SUBSCRIPTIONS TO PROVIDE SESSIONAL LECTURERS, ETC.

Total.....\$37,427

### 9. ENDOWMENTS FOR APPARATUS.

### 10. SUBSCRIPTIONS, ETC., FOR APPARATUS.

Philosophical Apparatus, 1867. Willi <b>a</b> m Molson, Esq	\$500	Forward
John H. R. Molson, Esq.	500	of Upper Chemical Laboratory 2,075
Peter Redpath, Esq	500	A. J. Lawson, a Dynamo
George Moffatt, Esq	250	Benjamin Dawson, 3 Microscopes
Andrew Robertson, Esq	100	Botanical Apparatus, 1897.
John Frothingham, Esq	100	Wm. C. Macdonald, Esq 420
David Torrance, Esq	100	Hugh McLennan, Esq 111
Thos. J. Barron, BA	50	Samuel Finley, Esq 111
J. H. R. Molson, Esq., Dynamo,		A. F. Gault, Esq 111
Gas Engine and Fixtures	1,792	
Mrs. Redpath, Storage battery	400	Total\$ 7,120

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Forward ...... \$4,292

### 11. MISCELLANEOUS.

### III. SPECIA

### 1. THE DO1

This endowment, provide for ti to the stand: constitute a and in 1886-

Hon. Sir Donald 4 1890-91..... Hon. Sir Donald 4 Donalda classe

3. ENLOWM

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### IV. ENDOW

- THE WILLIAM SCOTT will of the late **N** THE DAVID J. GREE Faculties of Art: the late David J. half of which is d THE THOMAS WORKM 1891 under the la. the sum of \$117,0 Engineering, with thereto, \$57,000 to and expension
- and apparatus. WILLIAM MACDONALD, shops, \$20,000.
- THE MACDONALD ENG donor as a gift to 1893.
- THE MACDONALD PHYSI Applied Science, th
- as a gift to the Uni THE WILLIAM C MACD
- Applied Science, en
- in 1893, \$50,000. T THE WILLIAM C. MACD
- Wm. C. Macdonald, additional sum of \$1

### 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 Honourable 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 

### 2 MISCELLANEOUS SUBSCRIPTIONS.

Hon. Sir Donald A. Smith, for musical instruction in sessions 1889-90 and

1890-91.......\$400 Hon. Sir Donald A. Smith, for appliances in Zoology in the special interest of

Donalda classes in 1895......\$100

### 3. ENLOWMENT 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 Scholurship or Prizes in a "College for Women," affiliated to the University, or in classes for the Higher Education of Women, approved by the University. The amount of the fund is at present \$1,100.

### IV. ENDOWMENTS AND SUBSCRIPTIONS FOR THE FACULTY OF APPLIED SCIENCE.

### 1. BUILDINGS, CHAIRS, ETC.

THE WILLIAM SCOTT CHAIR OF CIVIL ENGINEERING, in 1884, endowed by the last will of the late Miss Barbara Scott, of a ontreal. - \$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 Science.
- 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 maintenance of a 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.
- WILLIAM MACDONALD, Esq., in 1890, towards erection of Thomas Workman Workshops, \$20,000.
- THE MACDONALD ENGINEERING BUILDING AND EQUIPMENT-announced by the donor as a gift to the University in 1890, and formally opened February, 1893
- THE MACDONALD PHYSICS BUILDING AND EQUIPMENT in the Faculties of Arts and Applied Science, the gift of William C. Macdonald, E-q., announced by him as a gift to the University in 1890, and formally opened February, 1893.
   THE WILLIAM C MACDONALD CHAIRS OF PHYSICS, in the Faculties of Arts and Applied Science, and and the William C. Macdonald E-g., in 1800, \$50,000
- Applied Science, endowed by William C. Macdonald, Esq., in 1890-\$50,000, in 1893, \$50,000. Total, \$100,000.
- THE WILLIAM C. MACDONALD CHAIR OF ELECTRICAL ENGINEERING, endowed by Wm. C. Macdonald, Esq., in 1891, with the sum of \$40,000; in 1898, with the additional sum of \$10,000.

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> S, ETC. ..... \$27,500 7,300 . . . . . . . . . . ent of

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) Biological .......\$250 THE MACDONALD ENGINEERING BUILDING MAINTENANCE FUND, endowed by Wm. C. Macdonald, Esq., in 1892 and 1896.—\$85,000. THE MACDONALD PHYSICS BUILDING MAINTENANCE FUND in the Faculties of Arts

and Applied Science, endowed by Wm. C. Macdonald, Esq., in 1892 and 1896-\$150.000.

THE MACDONALD CHEMISTRY AND MINING BUILDING AND EQUIPMENT, given to the University by Wm. C. Macdonald, Esq., in 1896.—\$246,000. THE MACDONALD CHEMISTRY AND MINING BUILDING MAINTENANCE FUND, endowed

by William C. Macdonald, Esq., \$225,000. THE WILLIAM C. MACDONALD CHAIR OF MINING AND METALLURGY, endowed in

1896 by William C. Macdonald, Esq., with the sum of \$50,000. THE WILLIAM C. MACDONALD CHAIR OF ARCHITECTURE, endowed in 1896 by Wm.

C. Macdonald, Esq., with the sum of \$50,000. THE WILLIAM C. MACDONALD CHAIR OF CHEMISTRY, endowed in 1897 by William

C. Macdonald, Esq., with the sum of \$50,000. THE WILLIAM C. MACDONALD ARCHITECTURAL DEPARTMENT MAINTENANCE FUND, endowed by William C. Macdonald, Esq., in 1898.-\$10,000.

THE SIR WILLIAM C. MACDONALD ENDOWMENT DEPARTMENT OF MINING AND METALLURGY, 1899.-\$55,000.

### 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 o' Arts and Applied Science:

1 01	the	raculties of Arts a	and Applied Science.
Hon	. Sir	Donald A. Smith,	\$50,000
Joh	nH.	R. Molson, Esq.,	50,000
Wm	a. C.	Macdonald, Esq.	50,000
			-

### Total ......\$150,000

#### 3. EXHIBITIONS AND SCHOLARSHIPS.

- THE SCOTT EXHIBITION .- Founded by the Caledonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, and endowed in 1872 with the sum of \$1,100 subscribed by members of the Society and other citizens of Montreal. The Exhibition is given annually in the Faculty of Applied Science-Annual value \$50.
- 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 MAJESTYS' 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. STERRY HUNT SCHOLARSHIP .- Founded in 1894 by the will of the late Dr. T. Sterry Hunt, and endowed with the sum of \$2,082, 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, Goveraor-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 commemutation of its meeting in Montreal in the year 1884.

In 1889 a Go. Governo Arts, the till 1893. In 1894 a Gol deen, Gov of Arts, t ued till 18 In 1899 a Gold Governorthe latter

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Daniel Torrane Charles J. Brye R. J. Reekie, E

Hon. James Fer annum for 10 Peter Redpath, annum for 10 John H. R. Mols per annum for George H. Frot (\$400 per annun T. James Claxton, annum for 6 yea Donald Ross, Esq. num for 5 years) Miss Mary Froth per annum for a

Forward

Subscriptions

Wm. C. Macdonald,

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Subscriptions to pr

E. B. Greenshields, I J. E. Bovey, Esq ..... Professor H. T. Bove

Total.....

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ie Marquis tion in the d Science.

Iraduating n of memind by gift; in Mont367

- In 1889 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. Continued till 1893.
- In 1894 a Gold and a Silver Medal were given by His Excellency 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. Continued till 1898.
- In 1899 a Gold and a Silver Medal were given by His Excellency the Earl of Minto, 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 FACULTY.

Endowment Fund.

### Graduates' Endowment Fund.

R. J. Reekie, Esq..... 100

Total ...... \$6,100

Graduates' Endowment Fund-Class 1890, \$70 a year for 5 years, \$350; received to date.. \$85

### Annual Subscriptions, 1871-1879.

Hon. James Ferrier (\$100 per	Forward\$13,850
annum for 10 years) \$1,000 Peter Redpath, Esq. (\$400 per	H. McLennan, Esq. (\$100 per an- num for 5 years)
annum for 10 years) 4,000	A. F. Gault, Esq. (\$100 per an-
John H. R. Molson, Esq. (\$400	num for 5 years) 500
per annum for 10 years) 4,000	Gilbert Scott, Esq. (\$100 for 2
George H. Frothingham, Esq. (\$400 per annum for 7 years) 2,800	Joseph Hickson, Esq. (\$100 for
T. James Claxton, Esq. (\$100 per	2 years
annum for 6 years) 600	Principal Dawson (\$300 for 2
Donald Ross, Esq. (\$50 per an- num for 5 years) 250	years)
Miss Mary Frothingham (\$400	Lorne 500
per annum for 3 years) 1,200	Mrs. Redpath (Terrace Bank) 100
Forward	Total\$16,450

### Subscriptions lowards Maintenance of Engineering Department.

Wm. C. Macdonald	, Esq., sessions 1891-92 to 1897-98 \$	56,341
do	for advertising	675
do	to cover certain salaries, session 1894-95 and 1897-98.	1,920
do	to meet the expenses of the course of summer work for Mining Engineering Students (1898).	825
	Total\$	59,761
Subscriptions to	proviae lectures in Mechanical and Sanitary Engined	ering,

E. B. Greenshields, Esq	Jeffrey H. Burland, B.A.Sc., \$100
10tal	Total \$401

Subscriptions for Maintenance of Chair of Practical Chemistry, 1862.

Hon. C. Dunkin, M.P	\$1,200
Principal Dawson	1,200
Peter Redpath, Esq	226

For Maintenance of Chair of Mining Engineering and Metallurgy, 1891.

R. B. Angus, Esq \$2000		Forward\$4,000 E. K. Greene, Esq	\$6,200
Mrs. Dow 1000		, , , , , , , , , , , , , , , , , , , ,	
Hugh McLennan, Esq 1000		Dr. T. Brainerd 750	
Miss Benny 1000		A. F. Gault, Esq 750	
T. A. Dawes, Esq 750		Messrs. H. & A. Allan 750	
A. A. Ayer, Esq 250		Hector Mackenzie, Esq 750	
G. W. Reid, Esq 100		Peter Lyall, Esq 750	
Evans Bros 100		James Ross, Esq 600	
	\$6,200	A. Robertson, Esq 300	
		John Duncan, Esq 300	
Daught in Mine Varia		George Hague, Esq 300	
Payable in Three Years.		Jonathan Hodgson, Esq 300	
		James Moore, Esq 200	
Sir Wm. Dawson 1000		Messrs. Ames & Holden 150	
Alex. Stuart, Esq. (Lon-		James Cooper, Esq 150	
don, Eng) 1500		I / I	10,800

Total......\$17,000

Forward ...... \$4,000 \$6,200

R. G. Reid, Esq..... 1500

### Remodelling East Wing for Class Rooms for Faculty of Applied Science, 1888.

Total ..... \$6000

### 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 Applied Science, in commemoration of the meeting of the Association in Montreal in 1884......\$1,500

### 7. SUBSCBIPTIONS, ETC., FOR APPARATUS.

J. Livesey, Esq., through Dr.

Harrington, for the same....... 50 Geo. Stephen, Esq., for the same Chus. Gibb, B.A., donation for

Apparatus in Applied Science 50 The Local Committee for the reception (1281) of American Society of Civil Engineers

Forward ...... \$1175

Forward\$1175
for the purchase of Appliances
for the department of Civil
Engineering in Faculty of Ap-
plied Science 475
Capt. Adams, Chemical Appar-
atus 10
J. H. Burland, B.A.Sc., Chemi-
cal Apparatus 25
Wm. C. Macdonald, Esq., for
Surveying and Geodetic Ap-

paratus in 1890..... 1500

Total ..... \$3,185

8. LIST O NEW

> Abbott, W Adams, Caj American S

Archbald, 1 Ashton Val

Bell Telephe

Bertram & !

Birch & Co.

Birks, Henry Bishop, Geor Blackwe I, Ko Blake Mnfg.

Blake Pump & Boston) . Bremner, A .. Brockhaus, H Brodie & Har Brush, G .... Campbell Ti Jordan & L Campbell, Ket Canadian Gene (Toronto), pe Canadian Gene Electric

Carsley, S..... Carus-Wilson, J Cary, A. A .... Chadwick, F..... Chanteloup, 2... Claxton, T. J... Scantling Costigan, J..... Cowen, Amos .... Cowper, P. H....

Craig, Messrs. Scotland) ......

Crocker-Wheeler The (New York

Crosby Steam G The (Boston)....

Darling, Brown & R. I.)..... Date, John..... Dawson, W. B....

### 368

ry, 1862.

1,200 1,200 226 2,626

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.....\$6000

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> ....\$1175 ses vil ip-475 ar-10 .... ni-25.... for p 1500...

... \$3,185

369

### 8. LIST OF SUBSCRIBERS AND DONORS TO THE EQUIPMENT OF THE NEW ENGINEERING BUILDINGS OF MCGILL UNIVERSITY TO MAY, 1898.

American Steam Gauge Co., (Boston) Indicator.

Archbald, H.. Books Ashton Valve Co. (Boston)

Sectional Valve Bell Telephone Co ...... A set of

Telephone Apparatus Bertram & Sons, J. (Dundas). .....

24 in. Planer Birch & Co., J. (England) .....

Hydraulic Tubes Birks, Henry ..... Clock Bishop, George ...... Equipment Blackwe l, Kennet ......Equipment Blake Mnfg. Co., The George F ...... Blue Prints of Pump

Blake Pump Co., The Geo. (New York & Boston) ...... Pump Bremner, A ..... \$50 Cameron, General ... Rotary Drill Campbell Tile Co. England), per Jordan & Loc. .... Equipment Campbell, Kenneth ..... \$50 Canadian General Electric Co ..... (Toronto), per F. Nichols..Equipment Canadian General Electric Co.....

Electric Drill, Edison Generator, Dynamo, Motor

Carsley, S. .... \$100 Carus-Wilson, Prof. C. A. ... Equipment Cary, A. A ..... Photographs of Boilers Chadwick, F ..... Truss Models Chanteloup, ...... \$50 ..... Claxton, T. J ... Timber Beams of large

Scantling for Testing Laboratory Costigan, J ...... Equipment Cowen, Amos ..... Samples of Bricks Cowper, P. H. Model of Steam Engine

Craig, Messrs. J. & M., (Kilmarnock, Scotland) ...... Sanitary Sections (full

size) and models Crocker-Wheeler Electric Motor Co., The (New York) .. .. Motor, Armature,

Prints Crosby Steam Gauge and Valve Co., The (Boston) ..... Gauge and Valve,

Indicator and Valves Darling, Brown & Sharpe (Providence, Date John ..... Equipment Dawson, W. B ..... Specimens Dominion Wire Manfg. Co., per F. Fairman ...... Shaper Drummond, Hon. G. A ...... Prism 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 Company, (Boston) Equipment

"Engineering Magazine" (New York City)..... Mining Illustrations and Photographs

Eureka Tempered Copper Co ..... Equipment

Ewan, A ..... \$100 

Furlong, G. W., B.A.Sc..... Speci-mens of Pine and Wood bored by

Teredos.

Gardner & Son, R. W ..... 16 in. Lathe Gardner, R...... Equipment Garth & Co..... \$500 Garth, Henry ...... Equipment Government of New South Wales .....

Collection of Australian Timbers Government of Queensland, Australia, Collection of Queensland Timbers

Gower, W. E ..... Grier, G. A ...... Equipment Gurney & Co., E. & C ...... \$604 Haddield, Messrs. (Sheffield)...Equipment Hamilton Bridge Works Co. A Model of the Stoney Creek Arch Hamilton Powder Co......Electrical

Blasting Machine, and appliances, etc., for blasting.

Hearn & Harrison, per L. Harrison, Barometer & Clock

Hersey, R......\$1200 

Hughes & Stephenson ...... Equipment Hutton, W. H...... Equipment Ingersoll Rock Drill Co......Rock Drill Irwin & Hopper ..... Equipment Ives, H. R ..... Cupola Joyce, Alfred.....

Y

Jordan & Locker .... Equipment Kennedy, John ...... Equipment Kennedy, W. & Sons. American Turbine Kennedy, W. (Owen Sound) ......Pump Kerr, R. & W ...... Tools King & Son, Warden ....... \$534 Laughlin-Hough Drawing Table Co., Drawing Tables

Lachine Rapids Co..... Electrical Laurie & Bro. J ..... Compound Engine Lawson, A. J...... Equipment Lehigh Zine & Iron Co ......Franklin Furnace, N. J., Mining Specimens & Photographs

Lindsay & Co., C. F ..... Equipment Lovell & Son, John ..... Books Lyster, A. G ..... Drawings and

Sketches of London and Liverpool Docks

McDougall, Mrs. J ....... \$4000 McLachlin Bros. (Arnprior) ...... Timber McLaren, D ......\$100 McLaughlin Bros ...... Timber Model of Sand Box

Miller Bros. & Sons...... Elevator Mitchell, P ..... Equipment (\$300) Mitchell & Co., R ..... Equipment Naismith, P. L., B.A.Sc..... Specimens Nalder Bros. & Co. (England)..... Standard Cell

National Electric Mfg. Co ..... 100 volt Transformer, Transformers Norton Emery Wheel Co. (Worcester, U.S.) ...... Equipment Notman, Wm ...... Photographs Ohio Brass Co ...... Fittings Ogilvie, W .....\$500 Packing Elec. Co... Transformer Palmer, A ..... Equipment Parker, M ...... 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 ....... Working Drawings of Locomotives (32)

Phelps Engine Co., per A. R. Williams & Co., Dake Steam Engine, 4 Horse Power Engine

Pillow, J. A ...... \$250

Pratt & Whitney (Hartford, Conn) ..... Epicycloidal Gear Model Prowse, G. R ...... Equipment

Queensland Government per Sir Thomas McIlwraith .....

**Collection of Timbers** Radiator Co. (Toronto) ...... \$500 Redpath, Mrs ...... \$100 Reed. G. W ...... \$100 Reford, R ..... \$1000 Reid, R ..... Equipment Reid, R. G ...... \$1000 Renouf, E. M ..... Books Rhode Island Locomotive Works ...... Photos of Locomotives

Rife's Hydraulic Engine Mfg. Co. (Roanoke, Va., U.S.A.) Hydraulic Ram

Robertson, J ..... Equipment Rogers, Professor (Waterville, Maine) Equipment Ross, Jas.... \$500 

30 Light Stanley transformer Rutherford, W..... Equipment Sadler, G. (Robin & Sadler) .....

Belting (\$400) Seeley, John ..... Insulators Schaeffer & Budenbery (Brooklyn, N.Y.) **Double Indicator** 

Eng) .... Equipment Shearer, James ..... Sheppard, Chas ..... \$200 \$200

Sheppard, Unas..... Siemens Bros. (London, Eng)..... Cable Samples Smith, C. B ..... .....

Framed Photos of Bridges (2)

struction of Sault Ste. Marie Canal Locks

Smith, R. Guilford .......... ..... Books Stanley Elect. Co ..... Wattmeter Steel Co. of Scotland, The.....

Samples of Cable Wire, etc. St. George, P. W ..... Models

Stirling Co., The..... Sectional Blue Prints of Boilers

### Sturtevar

Swan Lan Taylor, A Tees & Co Thomas, I Thomson-

Twyford ¿ Vail, Step

Walker &

### 9. FACI

Hugh Pato A. Joyce ... R. Gardner H. Garth .... Hughes & S R. Mitchell

### V. ENDC

Hon. Sir Doi

Establish years by the

Mrs. G. W. Ca H. A. Allan, I Hon. Sir D. A Sir George St R. B. Angus, George A. Dru Alex. Murray, Robert Moat, W. C. Macdon A Friend Duncan McInt A. F. Gault, E M. H. Gault, I G. W. Stephen James Benning R. P. Howard, G. B. & J. H. I

Miss Elizabeth

Forw

### Sturtevant Co., The B. F. (Boston) .....

Blowers Swan Lamp Mfg, Co..... ..... Lamps Thomas, R. & Son. ......Insulators Thomson-Houston Co. (Boston)........ Incandescent dynamos graph Wire Used Walker & Co., James ...... Tools Weston Elect. Instr. Co. Ammeters, &c. 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

The above representing a total of about \$80,000.

### 9. FACULTY OF APPLIED SCIENCE LIBRARY ENDOWMENT, 1893.

Hugh Paton\$	25	[ Forward \$	600
A. Joyce	25	W. Rodden	25
R. Gardner	50	M. Parker	25
H. Garth	100	Robin & Sadler	<b>50</b>
Hughes & Stephenson	100	J. Robertson, Esq	50
R. Mitchell	300	Mrs. John McDougall (1895)	20
Forward	\$600	Total\$	770

#### forward.....

V. ENDOWMENTS AND SUBSCRIPTIONS IN AID OF	$\mathbf{THE}$
FACULTY OF MEDICINE.	

### 1. LEANCHOIL ENDOWMENT, 1884.

### 2. CAMPBELL MEMORIAL ENDOWMENT, 1884.

Established to commemorate the service rendered to the Faculty during 40 years by the late Dean, George W. Campbell, M.D., LL.D.

Mrs. G. W. Campbell \$	2000	Forward\$2	20,000
H. A. Allan, Esq	1500	J. C. Wilson, Esq	1000
Hon. Sir D. A. Smith	1500	Mrs. John Redpath	1000
Sir George Stephen, Bart	1000	Hon, John Hamilton	1000
R. B. Angus, Esq	1000	Miss Orkney	1000
George A. Drummond, Esq	1000	Hugh Mackay, Esq	1000
Alex. Murray, Esq	<b>10</b> 00	Hector Mackenzie, Esq	1000
Robert Moat, Esq	1000	Thomas Workman, Esq	1000
W. C. Macdonald, Esq	1000	Hugh McLennan, Esq	1000
A Friend	1000	O. S. Wood, Esq	1000
Duncan McIntyre, Esq	1000	Frank Buller, M.D	500
A. F. Gault, Esq	1000	James Burnett, Esq	500
M. H. Gault, Esq	1000	Andrew Robertson, Esq	500
G. W. Stephens, Esq	1000	Robert Mackay, Esq	500
James Benning, Esq	1000	John Hope, Esq	500
R. P. Howard, M.D	1000	Alex. Urquhart, Esq	500
G. B & J. H. Burland, Esqs	1000	R. A. Smith, Esq	500
Miss Elizabeth C. Benny	1000	George Hague, Esq	500
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Forward ...... \$20,000

Forward ...... \$33,000

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Jear Model Equipment r Sir . . . . . . . . . . . . . . . . of Timbers ......\$500 .....\$100 les of Fire-.....\$112 (value \$50) Equipment ..... \$100 ..... \$100 ..... \$1000 Equipment .....\$1000 ..... Books orks ..... ocomotives Mfg. Co. ...... aulic Ram . . . . . . . . . . . . . . . . ed Engine Equipment e, Maine) Equipment .....\$500 Equipment ... Motors Dynamos, ransformer Equipment ing (\$400) Insulators clyn, N.Y.) Indicator .....\$100 quipment anchester, Iquipment .... \$200 .... \$200 ..... Samples ..... ridges (2)

Conn).....

quipment Specificaing con-rie Canal

.... Books /attmeter ..... Nire, etc. .... Models of Boilers

W. Kinlock, Esq       100       J. A. McArthur, M.D. (Fort         Hua, Richardson & Co       100       Elgin, O.)       5         Mrs. Cuthbert (N. Richmond, Q.).       100       John Campbell, M.D. (Scaforth,       5         J. M. Drake, M.D.       100       0.       5		
J. K. Ward, Esq.       500       Hugh Patton, Esq.       100         Warden King, Esq.       500       R. T. Godfrey, M. D.       100         John Stirling, Esq.       500       R. T. Godfrey, M. D.       100         John Rankin, Esq.       500       W. A. Dyer, Esq.       100         Messrs. J. & W. Ogilvie.       500       Geo. W. Wood, M.D. (Faribault,       100         Messrs. J. & W. Ogilvie.       500       A. A. Browne, M. D.       100         John A. Pillow, Esq.       500       Geo. W. Wood, M.D. (Faribault,       100         John A. Pillow, Esq.       500       R. L. MacDonnell, M.D.       100         Scarsley, Esq.       500       Henry Lunam, B.A., M.D. (Campbellow, N.B.)       500         Jonathan Hodgson, Esq.       500       Hon. Sir A. T. Galt       500         George Ross, M.D.       500       R. J. B. Howard, M.D.       25         Mian Gilmour, Esq., Ottawa.       500       R. J. Barley, M.D. (Vet. Dept.       30         Allan Gilmour, Esq.       500       R. N. Shepherd, Esq.       250         G. P. Gridwood, M.D.       300       R. N. Shepherd, Esq.       250         John Kerry, Esq.       300       R. N. Enfret (Meebee)       20         G. P. Gridwood, M.D.       300 <th>Forward</th> <th>Forward</th>	Forward	Forward
Warden King, Esq		
	Warden King, Esg	
	John Stirling, Esa	
Robert Reford, Esq	John Bankin, Esa	
Messrs, Cantlie, Ewan & Co       500       Minn.)		
Messrs. J & W. Ogilvie		Minn) 100
Randolph Hersey, Esq		
S. Carsley, Esq		
D. C. MacCallum, M. D		
Messrs. S. Greenshields, Son & Co.       500       bellton, N.B.)       500         Jonathan Hodgson, Esq       500       Hon. Sir A. T. Galt       50         George Ross, M.D.       500       T. J. Alloway, M.D.       30         T. G. Roddick, M.D.       500       K.J. B. Howard, M.D.       30         Messrs. Cochrane, Cassils & Co.       500       Giffith Evans, M.D. (Vet. Dept.         Allan Gilmour, Esq. Ottawa.       500       Giffith Evans, M.D. (Vet. Dept.         Allan Gilmour, Esq. Ottawa.       500       J. J. Farley, M.D. (Belleville).       26         G. E. Fenwick, M.D.       300       Henry R. Gray, Esq.       250       J. Beouse, M.D. (Prescott)		Honry Lunam B A M D (Comp
Jonathan Hodgson, Esq       500       Hon. Sir A. T. Galt       50         George Ross, M.D.       500       T. J. Alloway, M.D.       30         T. G. Roddick, M.D.       500       R. J. B. Howard, M.D.       30         Mesardner, M.D.       500       R. J. B. Howard, M.D.       25         Mesardner, M.D.       500       R. J. B. Howard, M.D.       25         Sir Joseph Hickson       500       Griffith Evans, M.D. (Vet. Dept.       25         Allan Gilmour, Esq., Ottawa       500       J. Farley, M.D. (Belleville).       25         G. P. Girdwood, M.D.       250       R. N. Rinfret (Quebec)       20         Charles F. Smithers, Esq       250       R. W. Elmenhorst, Esq       250       R. M. Rifret (Quebec)       20         John Kerry, Esq.       250       J. C. Rattray, M.D. (Cobden, O.)       10       20       20       R. M. Bougall, M.D. (Cobden, O.)       10         George Armstrong, Esq       250       J. W. Oliver, M.D. (Cobden, O.)       10       J. W. Oliver, M.D. (Cobden, O.)       10         J. M. Douglas, Esq       250       J. W. Oliver, M.D. (Cobden, O.)       10         J. M. Douglas, Esq       250       J. W. Oliver, M.D. (Clathan, O.)       10         J. M. Duwaon, Esq       150       A. MucDougal		hellton NB) 50
George Ross, M.D.       500       T. J. Alloway, M.D.       30         T. G. Roddick, M.D.       500       Sou       Sou       30         Wm Gardner, M.D.       500       Sou       Sou       Sou       30         Messrs. Cochrane, Cassils & Co       500       Sou       Sou       Sou       25         Allan Gilmour, Esq., Ottawa       500       Griffith Evans, M.D. (Vet. Dept.       26         Allan Gilmour, Esq., Ottawa       500       J. J. Farley, M.D. (Belleville)       25         Miles Williams, Esq.       300       J. E. Brouse, M.D. (Prescott)       20         G. P. Girdwood, M.D.       250       R. N Rinfret (Quebec)       20         Charles F. Smithers, Esq.       250       Robert Howard, M.D. (St. Johns)       20         John Kerry, Esq.       250       J. H. McBean, M.D.       15         J. M. Douglas, Esq.       250       J. C. Rattray, M.D. (Cobden, O.)       10         George Armstrong, Esq.       250       J. M. Douglas, Esq.       250         J. M. Douglas, Esq.       250       J. M. Olucan, M.D. (Ottawa, O.)       10         Duncan McEachran, Esq., F. R.       200       J. M. Olucham, O.)       10         J. W. Sthepherd, M.D.       150       J. McDiarmid, M.		
T. G. Roddick, M.D.       500       R. J. B. Howard, M.D.       25         Wm Gardner, M.D.       500       500       500       25         Messrs. Coehrane, Cassils & Co       500       Griffith Evans, M.D. (Vet. Dept.       25         Allan Gilmour, Esq., Ottawa		
Wm. Gardner, M. D.       500       Louis T. Marceau, M.D. (Napier- ville, Q.)		
Messrs. Cochrane, Cassils & Co       500       ville, Q.,	Wm Gardner M D 500	
Sir Joseph Hickson       500       Griffith Évans, M.D. (Vet. Dept.         Allan Gilmour, Esq., Ottawa       500       Army)       26         R. W. Shepherd, Esq       500       J. J. Farley, M.D. (Belleville)		
Allan Gilmour, Esq., Ottawa		
R. W. Shepherd, Esq		
G. E. Fenwick, M.D.       300       Henry R. Gray, Esq.       25         Mikes Williams, Esq.       300       J. E. Brouse, M.D. (Prescott).       20         G. P. Girdwood, M.D.       250       R. N Rinfret (Quebec)       20         Charles F. Smithers, Esq.       250       R. N Rinfret (Quebec)       20         John Kerry, Esq.       250       Robert Howard, M.D. (St. Johns)       20         A. Baumgarten, Esq.       250       Bobert Howard, M.D. (St. Johns)       20         R. W. Elmenhorst, Esq.       250       J. H. McBean, M.D.       20         George Armstrong, Esq.       250       J. C. Rattray, M.D. (Cobden, 0.)       10         George Armstrong, Esq.       250       J. W. Oliver, M.D. (Clifton, 0.).       10         J. M. Douglas, Esq.       250       J. W. Oliver, M.D. (Clifton, 0.).       10         Juncan McEachran, Esq., F. R.       200       A. McDougall, M.D. (Ottawa, 0.)       10         R. Wolff, Esq.       150       J. MeDiarmid, M.D. (Boekland, 0.)       10         J. Benson, Esq.       150       J. Gillies, M.D. (Rockland, 0.)       50         J. Gillies, M.D. (Nataino, B.C.)       100       J. Gillies, M.D. (Cothatham, N.B.)       50         J. Gillies, M.D. (Nanaimo, B.C.)       100       J. A. McArthur, M.D. (F	R. W. Shepherd, Eso	
Mikes Williams, Esq		
G. P. Girdwood, M.D.250R. N Rinfret (Quebec)20Charles F. Smithers, Esq250Robert Howard, M.D. (St. Johns)20John Kerry, Esq250Drs. J. & D. J. McIntosh (Vank-26A. Baumgarten, Esq250Drs. J. & D. J. McIntosh (Vank-26R. W. Elmenhorst, Esq250J. H. McBean, M.D.20R. W. Elmenhorst, Esq250J. H. McBean, M.D.15W. F. Lewis, Esq250J. C. Rattray, M.D. (Cobden, O.)10George Armstrong, Esq250J. W. Oliver, M.D. (Clifton, O.)10J. M. Douglas, Esq250J. W. Oliver, M.D. (Clifton, O.)10J. M. Douglas, Esq250J. W. Oliver, M.D. (Clifton, O.)10Duncan McEachran, Esq., F. R.200A. McDougall, M.D. (Ottawa,0.)	Miles Williams, Esa	
Charles F. Smithers, Esq.250Robert Howard, M.D. (St. Johns)20John Kerry, Esq.250Drs. J. & D. J. McIntosh (Vank-26A. Baumgarten, Esq.250Drs. J. & D. J. McIntosh (Vank-26R. W. Elmenhorst, Esq.250J. H. McBean, M.D.20W. F. Lewis, Esq.250J. H. McBean, M.D.15W. F. Lewis, Esq.250J. C. Rattray, M.D. (Cobden, 0.)10George Armstrong, Esq.250J. W. Oliver, M.D. (Cobden, 0.)10J. M. Douglas, Esq.250J. W. Oliver, M.D. (Clifton, 0.)10J. M. Douglas, Esq.250J. W. Oliver, M.D. (Clifton, 0.)10Messrs. H. Lyman, Sons & Co.250D. A. McDougall, M.D. (Ottawa,10Duncan McEachran, Esq., F. R.200A. Ruttan, M.D. (Napanee, 0.).10R. Wolff, Esq.200James Gunn, M.D. (Durham, 0.)10R. Wolff, Esq.150J. McDiarmid, M.D. (Hensall, 0.)5James Stuart, M.D.150W. J. Derby, M.D. (Rockland, 0.)5J. B. Benson, M.D. (Nacaimo, B.C.)100J. B. Benson, M.D. (Chatham,5W. Kinlock, Esq.100J. A. McArthur, M.D. (Fort5Hua, Richardson & Co.100J. A. McArthur, M.D. (Seaforth,5J. M. Drake, M.D.1000.0.5		
John Kerry, Esq		
A. Baumgarten, Esq		Drs. J. & D. J. McIntosh (Vank-
R. W. Elmenhorst, Esq		leek Hill) 20
W. F. Lewis, Esq		
George Armstrong, Esq       250       E. H Howard, M.D. (Lachine)       10         J. M. Douglas, Esq       250       J. W. Oliver, M.D. (Clifton, O.)       10         Messrs. H. Lyman, Sons & Co       250       D. A. McDougall, M.D. (Ottawa,       10         F. J. Shepherd, M.D       250       D. A. McDougall, M.D. (Ottawa,       10         Duncan McEachran, Esq., F. R.       200       A. Ruttan, M.D. (Sarnia, O)       10         Benj. Dawson, Esq       200       James Gunn, M.D. (Napanee, O.)       10         R. Wolff, Esq       150       J. McDiarmid, M.D. (Hensall, O.)       5         James Stuart, M.D.       150       J. Gillies, M.D. (Rockland, O.)       5         H. W. Thornton, M.D. (New       J. B. Benson, M.D. (Chatham,       5         Richmond, Q.)       100       L. A. Fortier, M.D. (St. David       5         D. Cluness, M.D. (Nanaimo, B.C.)       100       L. A. McArthur, M.D. (Fort       5         W. Kinlock, Esq       100       J. A. McArthur, M.D. (Seaforth,       5         J. M. Drake, M.D.       100       100       5       5	W. F. Lewis, Eso	
J. M. Douglas, Esq	George Armstrong, Eso	
Messrs. H. Lyman, Sons & Co       250       D. A. McDougall, M.D. (Ottawa,         F. J. Shepherd, M.D       250       O. A. McDougall, M.D. (Ottawa,         Duncan McEachran, Esq., F. R.       250       O.)		
F. J. Shepherd, M.D		
Duncan McEachran, Esq., F. R.       A. Poussette, M.D. (Sarnia, 0)       10         C. V. S       200       A. Ruttan, M.D. (Napanee, O.)       10         Benj. Dawson, Esq       200       James Gunn, M.D. (Napanee, O.)       10         R. Wolff, Esq       150       J. McDiarmid, M.D. (Hensall, O.)       5         James Stuart, M.D       150       J. McDiarmid, M.D. (Hensall, O.)       5         A. T. Paterson, Esq       100       J. Gillies, M.D. (Rockland, O.)       5         H. W. Thornton, M.D. (New       J. B. Benson, M.D. (Chatham,       5         Richmond, Q.)       100       L. A. Fortier, M.D. (St. David       5         D. Cluness, M.D. (Nanaimo, B.C.)       100       J. A. McArthur, M.D. (Fort       5         W. Kinlock, Esq       100       J. A. McArthur, M.D. (Fort       5         Mrs. Cuthbert (N. Richmond, Q.).       100       John Campbell, M.D. (Seaforth,       5         J. M. Drake, M.D.       100       5       100       5		
C. V. S       200       A. Ruttan, M.D. (Napanee, O.) 10         Benj. Dawson, Esq       200       James Gunn, M.D. (Durham, O.) 10         R. Wolff, Esq       150       J. McDiarmid, M.D. (Hensall, O.) 5         James Stuart, M.D       150       J. McDiarmid, M.D. (Hensall, O.) 5         James Stuart, M.D       150       J. McDiarmid, M.D. (Hensall, O.) 5         A. T. Paterson, Esq       100       J. Gillies, M.D. (Rockland, O.) 5         H. W. Thornton, M.D. (New       J. Gillies, M.D. (Teeswater, O.) 5       J. Gillies, M.D. (Chatham, N.B.)		
Benj. Dawson, Esq       200       James Gunn, M.D. (Durham, O.)       10         R. Wolff, Esq       150       J. McDiarmid, M.D. (Hensall, O.)       5         James Stuart, M.D       150       J. McDiarmid, M.D. (Hensall, O.)       5         James Stuart, M.D       150       W. J. Derby, M.D. (Rockland, O.)       5         A. T. Paterson, Esq       100       J. Gillies, M.D. (Rockland, O.)       5         H. W. Thornton, M.D. (New       J. B. Benson, M.D. (Chatham,       5         Richmond, Q.)       100       L. A. Fortier, M.D. (Chatham,       5         O. Cluness, M.D. (Nanaimo, B.C.)       100       L. A. Fortier, M.D. (St. David       6         W. Kinlock, Esq       100       J. A. McArthur, M.D. (Fort       5         Hua, Richardson & Co       100       J. A. McArthur, M.D. (Fort       5         Mrs. Cuthbert (N. Richmond, Q.).       100       John Campbell, M.D. (Seaforth,       5         J. M. Drake, M.D.       100       0.)       5       5		
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James Stuart, M.D       150       W. J. Derby, M.D. (Rockland, O.)       5         A. T. Paterson, Esq       100       J. Gillies, M.D. (Reeswater, O.)       5         H. W. Thornton, M.D. (New       J. B. Benson, M.D. (Chatham, N.B.)		
A. T. Paterson, Esq       100       J. Gillies, M.D. (Teeswater, O.)       5         H. W. Thornton, M.D. (New       J. B. Benson, M.D. (Chatham,       5         Richmond, Q.)       100       I. B. Benson, M.D. (Chatham,       5         C. B. Harvey, M.D. (Yale, B.C.).       100       L. A. Fortier, M.D. (St. David       5         D. Cluness, M.D. (Nanaimo, B.C.)       100       J. A. McArthur, M.D. (St. David       5         W. Kinlock, Esq.       100       J. A. McArthur, M.D. (Fort       5         Hua, Richardson & Co       100       J. A. McArthur, M.D. (Fort       5         Mrs. Cuthbert (N. Richmond, Q.).       100       John Campbell, M.D. (Seaforth,       5         J. M. Drake, M.D.       100       0.       5       5	James Stuart, M.D 150	
H. W. Thornton, M.D. (New Richmond, Q.)       J. B. Benson, M.D. (Chatham, N.B.)		
Richmond, Q.)		
C. B. Harvey, M.D. (Yale, B.C.).       100       L. A. Fortier, M.D. (St. David         D. Cluness, M.D. (Nanaimo, B.C.)       100       Q		N.B.)
W. Kinlock, Esq       100       J. A. McArthur, M.D. (Fort         Hua, Richardson & Co       100       Elgin, O.)       5         Mrs. Cuthbert (N. Richmond, Q.).       100       John Campbell, M.D. (Seaforth,       5         J. M. Drake, M.D	C. B. Harvey, M.D. (Yale, B.C.). 100	L. A. Fortier, M.D. (St. David
W. Kinlock, Esq       100       J. A. McArthur, M.D. (Fort         Hua, Richardson & Co       100       Elgin, O.)       5         Mrs. Cuthbert (N. Richmond, Q.).       100       John Campbell, M.D. (Seaforth,       5         J. M. Drake, M.D	D. Cluness, M.D. (Nanaimo, B.C.) 100	0.)
Hua, Richardson & Co       100       Elgin, O.)       5         Mrs. Cuthbert (N. Richmond, Q.).       100       John Campbell, M.D. (Seaforth, O.)       5         J. M. Drake, M.D.       100       0.)       5		J. A. McArthur, M.D. (Fort
Mrs. Cuthbert (N. Richmond, Q.). 100 John Campbell, M.D. (Seaforth, J. M. Drake, M.D 100 O.)		
J. M. Drake, M.D	Mrs. Cuthbert (N. Richmond, Q.). 100	
Forward\$47,600 Total\$48,906		
	Forward\$47,600	Total\$48,906

### 3. ENDOWED CHAIRS, ETC.

SIR DONALD A. SMITH CHAIR OF PATHOLOGY, endowed in 1893 by t	ae
Hon, Sir Donald A. Smith with the sum of	\$50,000
SIR DONALD A. SMITH ENDOWMENT FOR THE DEPARTMENT OF HYGIES	Έ,
endowed in 1893 with the sum of	50,000
MRS. MARY DOW BEQUEST-Bequest by the will of the late Mrs. Ma	ry
Dow for the Faculty of Medicine, 1893, \$10,000, less Government T	ax
of 10 per cent	. 9,000

JOHN H. R. MOLSON DONATION- in 1893, \$25,000 for the purchase of land 60,000

and \$35,000 for additional building and equipment...... WALTER DRAKE, ESQ., for benefit of Chair of Physiology, an annual donation of \$500 given 1891 to 1897..... 3,500 DR. RO

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DR. ROBERT CRAIK FUND-

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\$48,906

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#### M1. John McDougall, toward formation of above (1893-94). 1,000 Jane F. Learmont, bequest do do (1894).....3,000

4,000 JOSEPH MORLEY DRAKE, CHAIR OF PHYSIOLOGY, endowed in 1898 by Walter Drake, Esq., with the sum of ..... 10,000

### 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., ILL.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 Mont-

real, 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\$12	200	Forward \$2	,000
	200	Robert Craik, M.D	200
Wm. Wright, M.D 2	200	Geo. E. Fenwick, M.D	200
Robert P. Howard, M.D 2	200	Joseph M. Drake, M.D	200
Duncan C. MacCallum, M.D 2	200	George Ross, M.A., M.D	50
Concession of the local data and			
Forward\$2.000		Total \$2	2,650

\$1,023.

For Physiological Laboratory of Fuculty of Medicine, 1879.

\$2,205

Dr. Campbell Dr. Howard Dr Craik Dr MacCallum Dr. Drake Dr. Godfrey Dr. McEachran, F. R.C.V.S	100 100 100 100 100	Forward Dr. Ross Dr. Roddick Dr. Buller Dr. Gardner Dr. Osler.	\$700 50 50 50 50 50
Forward	\$700	Total	\$950

Cameron Obstetric Collections.

Dr. J. C. Cameron . ...... \$10,000

#### 6. MISCELLANEOUS.

Anonymous Donor toward Expenses of Pathology for Session 1892-93 ...... \$500

### VI. ENDOWMENTS AND SUBSCRIPTIONS FOR THE FACULTY OF LAW.

### 1. ENDOWED CHAIRS, ETC.

THE GALE CHAIR, in the Faculty of Law, endowed in 1884 by the late Mrs. Andrew Stuart (née Agnes Logan Gale) of Montreal, in memory of her father, the late Hon. Mr. Justice Gale.-\$25,000.

- THE WILLIAM C. MACDONALD FACULTY OF LAW ENDOWMENT, founded by Wm. C. Macdonald, Esq., in 1890-\$150,000. Supplemented in 1897 by \$50,000. Total \$200,000.
- W. C. MACDONALD, ESO., remodelling part of East Wing in 1895 for Class Rooms, Lecture Rooms, etc., for Law Faculty.

### 2. MEDAL.

In 1865 the "Elizabeth Torrance Gold Medal" was founded and endowed by John Torrance, Esq., of St. Antoine Hall, Montreal, in memory of the late Mrs. John Torrance, for the best student in the graduating class in Law, and more especially for the highest proficiency in Roman Law.

### VII. GRADUATES' FUNDS.

### 1. THE FUND FOR ENDOWMENT OF THE LIBRARY.

The Graduates' Society of the University, in 1876, passed the following Resolution :-

Resolved :--- "That the members and graduates be invited to subscribe to a fund "for the endowment of the Libraries of the University; said fund to be invested "and the proceeds applied under the supervision of the Council of the Society in "annual additions to the Libraries; an equitable division of said proceeds to be "made by the Council between the University Library and those of the Profes-"sional Faculties."

In terms thereof subscriptions have been paid in to the Graduates's Society, amounting in all to \$3,120; the interest on which is annually expended in the purchase of books for the several libraries under the direction of a special committee appointed for that purpose.

### 2, THE DAWSON FELLOWSHIP FOUNDATION.

The Graduates' Society of the University, in 1880, and in commemoration of the completion by Dr. Dawson of his twenty-fifth year as Principal, resolved to raise with the assistance of their friends, a fund towards the Endowment of the Fellow ship, under the above name.

Details of the scheme can be had from the Treasurer, Francis Topp, B.A., B.C.L. The following subscriptions have been announced to date, May 1st, 1897. They are payable in one sum, in instalments, without interest or with interest till payment of capital, as subscribers have elected.

### Alphabetically arranged.

Abbott, H., B.C.L\$	60	Forward\$1	,730
Archibald, H., B.A.Se	20	Lyman, H. H., M.A.	100
Bethune, M. B., M.A., B.C.L	50	Lyman, A. C., M.A., B.C.L.,	50
Carter C. B., B.C.L	100	McCormick, D., B.C.L	100
Cruickshank, W. G., B.C.L	100	McGibbon, R. D., B.A., B.C.L	100
Dawson, W. B., M.A., Ma.E	50	McGoun, A., jun. M.A., B.C.L	50
Dougall, J. R., M.A	250	McLennan, J S., B.A	100
Gibb, C., B.A	100	Ramsay, R. A., M.A., B.C.L	50
Hall, Rev. Wm., M.A	100	Spencer, J. W., B.A.Sc., Ph.D	50
Hall, J. S., jun., B.A., B.C.L	100	Stephen, C. H., B.C.L	100
Harrington, B. J., B.A., Ph.D	50	Stewart, D. A., B.A.Sc	20
Hutchinson, M., B.C L	400	Stewart, J., M.D	60
Kirby, J., LL.D., D.C.L	50	Tait, M. M., B.C.L	100
Krans, Rev. E. H., M.A., LL D.,	100	Taylor, A. D., B.A., B.C.L	100
Leet, S. P., B.C.L	100	Trenholme, N. W. M.A., D.C.L	400
Lighthall, W. D., M.A., B.C.L	100		
		m	0 1 1 0

Forward ...... \$1,730

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Total to date ..... \$3,110