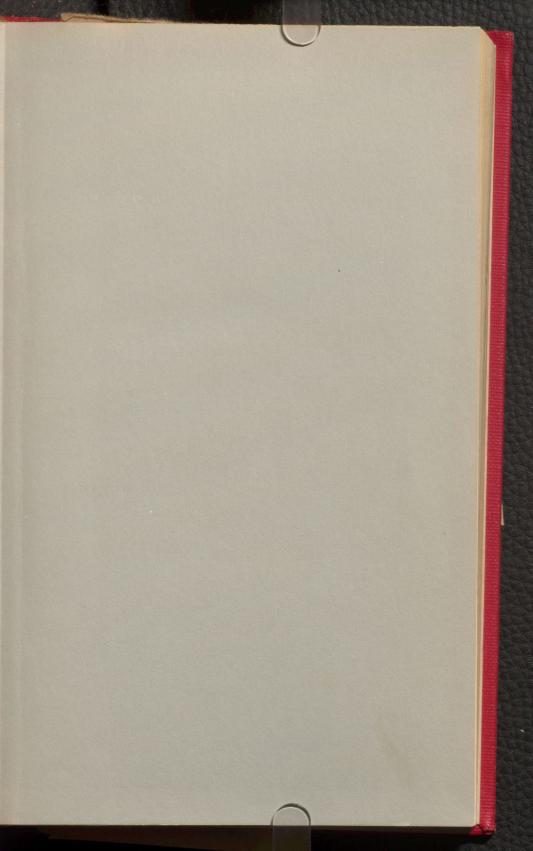
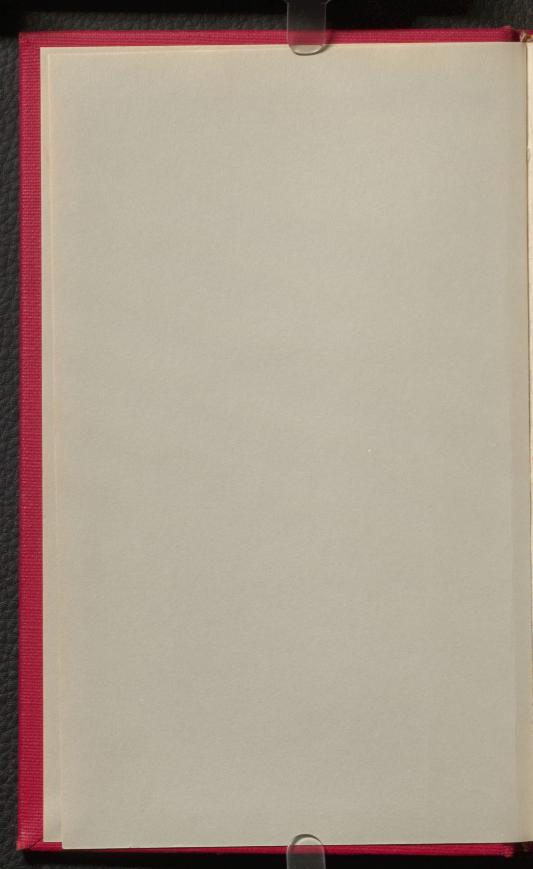


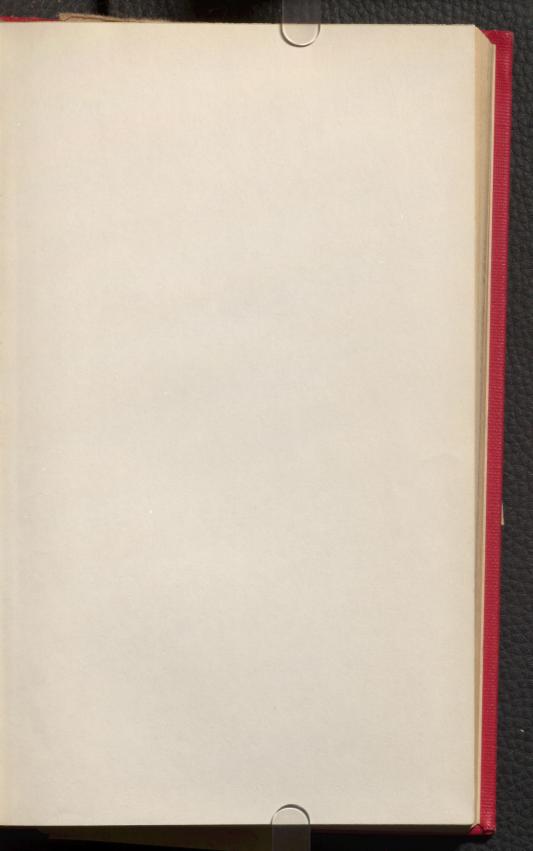


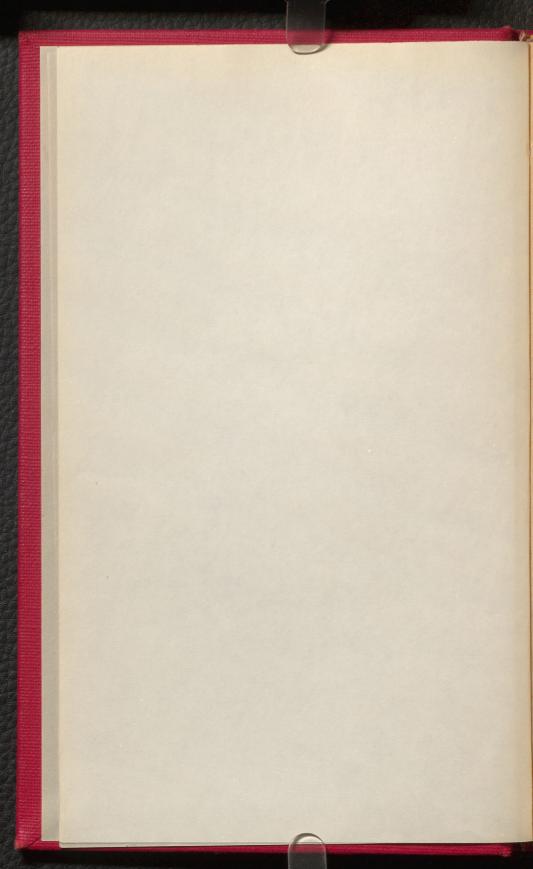
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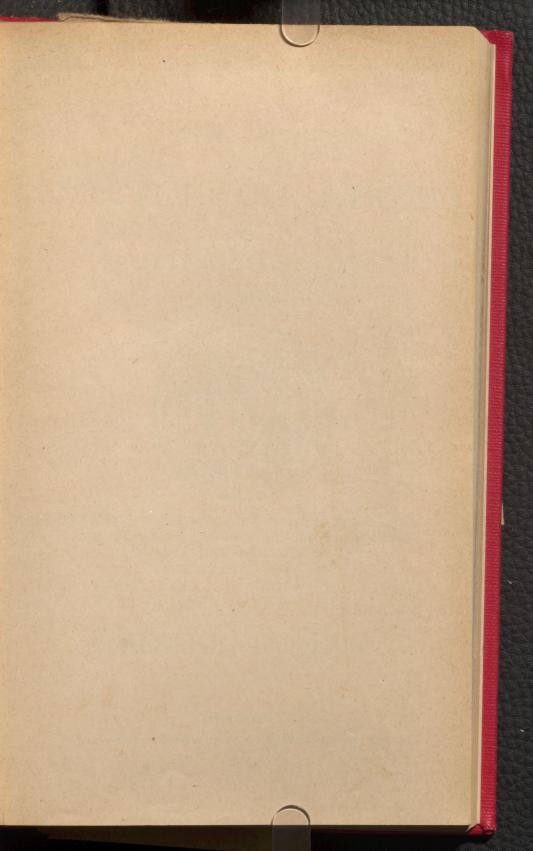


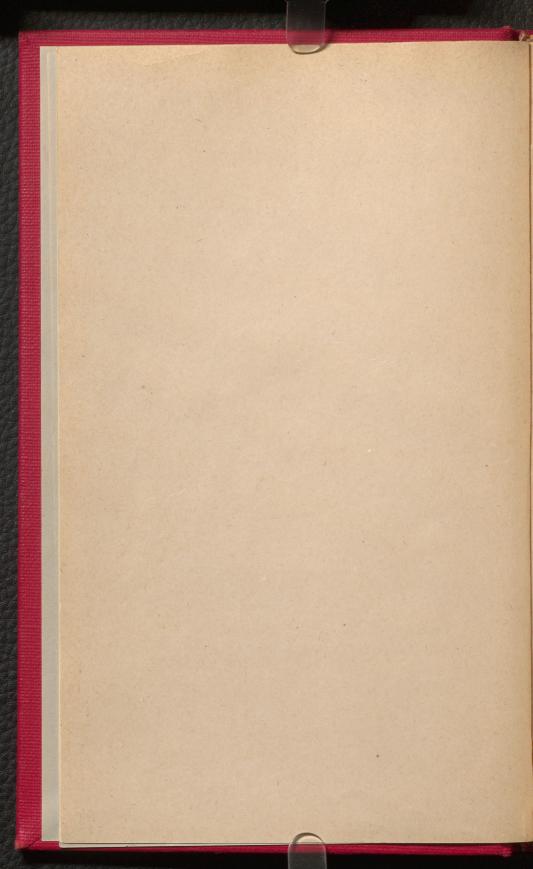












ANNUAL CALENDAR

OF

# McGILL COLLEGE

AND

## UNIVERSITY

MONTREAL.



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

# SESSION 1908-1909

## Montreal:

PRINTED FOR THE UNIVERSITY BY THE GAZETTE PRINTING Co., LTD. 1908.

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The List of Graduates, corrected to July, 1908, is published separately. Copies can be obtained on application to the Registrar.

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Dean of the Faculty of Applied Science.

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Dean of the Faculty of Medicine.

James Robertson, LL.D., C.M.G., Principal of Macdonald College.

George H. Locke, M.A., Dean of the School for Teachers, Macdonald College.

Wellington Dixon, B.A., Rector of the Montreal High Schools.

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ALEX. D. BLACKADER, B.A., M.D. Professor of Pharmacology and Therapeutics, and of 236 Mountain Street. Diseases of Children.

R. F. RUTTAN, B.A. (Toronto), M.D., F.R.S. Can. Professor of Organic and Biological Chemistry. McGill College. JAMES BELL, M.D.

Professor of Surgery and of Clinical Surgery. 409 Dorchester Street W.

J. GEORGE ADAMI, M.A., M.D. (Cantab. and McGn., LL.D. (Univ. N.B.), F.R.S., FR.SS. (Edin. and Can.), ate Fellow of Jesus College, Cambridge.

Strathcona Professor of Pathology and Director of Patho-331 Peel Street. logical Museum.

H. S. BIRKETT, M.D. 252 Mountain Street. Professor of Oto-Laryngology.

F. G. FINLEY, M.B. (London), M.D. Professor of Medicine and of Clinical Medicine. 729 vorchester Street W.

H. A. LAFLEUR, B.A., M.D. Professor of Medicine and of Clinical Medicine. 58 University Street.

GEORGE E. ARMSTRONG, M.D. Professor of Surgery and of Clinical Surgery.

320 Mountain Street. ERNEST W. MACBRIDE, M.A. (Cantab.), D.Sc. (Lond.), late Fellow of St. John's College, Cambridge.

Strathcona Professor of Zoology 28 Durocher Street. T. A. STARKEY, M.B. (Lond.), D.P.H. (Lond.), M.R.C.S. (Eng.), Fell- Royal San. Inst.

Professor of Hygiene.
J. W. Stirling, M.B. 178 Mansfield Street. Professor of Ophthalmology. 128 Stanley Street.

C. F. MARTIN, B.A., M.D. Professor of Medicine and of Clinical Medicine. 33 Durocher Street.

(The above Professors constitute the Faculty of Medicine.)

## OTHER OFFICERS OF INSTRUCTION.

T. J. W. Burgess, M.D., F.R.S.C., Medical Superintendent, Protestant Hospital for Insane. Professor of Mental Diseases. Drawer 2562, Montreal.

ANDREW MACPHAIL, B.A., M.D. Professor of the History of Medicine. 216 Peel Street. JOHN L. TODD, B.A., M.D., M.R.C.S. (Eng.).
Associate Professor of Parasitology.

Mactorill College P.O., Que.

JOHN M. ELDER, B.A., M.D.,

Assistant Professor of Surgery and Lecturer in Clinical Surgery 4201 Sherbrooke Street, Westmount.

J. G. McCarthy, M.D. Assistant Professor of Anatomy.

61 Drummond Street.

W. S. Morrow, M.D.

Assistant Professor of Physiology.

82 Union Avenue.

A. G. Nicholls, M.A., M.D.

Assistant Professor of Pathology and Bacteriology, and Lecturer in Gynaecology. 38 Bishop Street.

A. E. GARROW, M.D.

Assistant Professor in Surgery and Clinical Surgery.

289 Mountain Street. W. F. Hamilton, M.D. Assistant Professor in Clinical Medicine. 287 Mountain Street

J. ALEX. HUTCHISON, M.D.

Assistant Professor in Surgery and Clinical Surgery.

70 Mackay Street.

J. J. GARDNER, M.D. Lecturer in Ophthalmology.

128 Stanley Street.

J. A. SPRINGLE, M.D. Lecturer in Anatomy.

5 Rosemount Ave., Westmount. F. A. L. LOCKHART, M.B. (Edin.).

Lecturer in Gynaecology.

38 Bishop Street.

G. GORDON CAMPBELL, B.Sc., M.D.

Lecturer in Medicine and Clinical Medicine, Diseases of

Infants and Children and Dermatology. 117 Metcalfe Street. D. J. Evans, M.D.

Lecturer in Obstetrics and Diseases of Children.

603 Dorchester Street, West

W. W. CHIPMAN, B.A., M.D. (Edin.), F.R.C.S. (Edin.) Lecturer in Gynaecology

285 Mountain Street. S. RIDLEY MACKENZIE, M.D. 219 Peel Street.

Lecturer in Clinical Medicine. JOHN McCrae, M.B. (Toronto), M.R.C.P. (Lond.). Lecturer in Pathology and Demonstrator in Clinical

Medicine.

190 Peel Street. D. D. McTaggart, M.D. Lecturer in Medico-Legal Pathology. 221 Sherbrooke Street W.

J. W. SCANE, M.D.

Lecturer in Pharmacology and Therapeutics. McGill College.

A. A. ROBERTSON, B.A., M.D. Lecturer in Physiology.

136 Mansfield Street.

W. G. M. Byers, M.D. Lecturer in Ophthalmology. 346 Mountain Street.

A. ARTHMAN BRUERE, M.D. (Edin.). Lecturer in Clinical Medicine.

713 Mance Street, Montreal Annex.

WALTER M. FISK, M.D.

Lecturer in Histology and Demonstrator in Diseases of 98 Park Avenue.

Children. OSKAR KLOTZ, M.B. (Toronto), M.D. Lecturer in Pathology.

Royal Victoria Hospital.

CHARLES W. DUVAL, M.D. Lecturer in Pathology and Histology and Director of the Histological Laboratory. General Hospital, Montreal. J. A. HENDERSON, M.D. 34 Park Avenue. Lecturer in Anatomy. H. B. YATES, B.A. (Cantab.), M.D. Lecturer in Bacteriology. 257 Peel Street. A. H. GORDON, M.D. Lecturer in Physiology. and Demonstrator in Clinical Medicine. 125 Hutchison Street. KENNETH CAMERON, B.A., M.D. Lecturer in Clinical Surgery. 543 Dorchester Street W. G. H. MATHEWSON, B.A., M.D. 56 Crescent Street. Lecturer in Ophthalmology. E. W. ARCHIBALD, B.A., M.D. Lecturer in Clinical Surgery. 190 Peel Street W. L. BARLOW, B.A., M.D. Lecturer in Clinical Surgery. 4458 Sherbrooke Street, Westmount. M. E. Abbott, B.A. M.D (Bishop's). Governors' Fellow in Pathology and Curator of Medical Museum. McGill College. E. J. SEMPLE, B.A., M.D. Demonstrator in Surgical Pathology. 375 St. Antoine Street. J. J. Ross, B.A., M.D. Demonstrator in Anatomy. 414 Bourgeois Street. A. E. ORR, M.D. H. D. Hamilton, M.A. (Bishop's), M.D., L.R.C.P. & S. (Edin.), L.F.P. & S. (Glasgow). Demonstrator in Laryngology and Rhinology. Birks Building, Phillips Square. JAMES BARCLAY, M.D. Demonstrator in Obstetrics. 27 Sherbrooke Street W. F. B. Jones, M.D., D.P.H. 98 Sherbrooke Street W. Demonstrator in Hygiene. W. B. HOWELL, M.D. Demonstrator in Physiology. 102 Union Avenue. H. B. Cushing, B.A., M.D. Demonstrator in Histology and Clinical Medicine. 231 Stanley Street. W. A. DORION, M.D. Demonstrator in Histology. 130 Mansfield Street. J. L. D. MASON, B.A., M.D. Demonstrator in Pharmacology and Therapeutics. 30 Shuter Street. C. B. KEENAN, M.D. Demonstrator in Clinical Surgery. 376 Mountain Street. R. A. Westley, M.D.

Demonstrator in Anatomy. 401 Metcalfe Ave., Westmount-

32 McGill College Ave.

Demonstrator in Anatomy. H. M. Church, M.D. H. M. LITTLE, M.D.

Demonstrator in Obstetrics and Gynaecology.

J. R. GOODALL, M.D.

Demonstrator in Gynaecology.

A. T. BAZIN, M.D.

Demonstrator in Clinical Surgery.

4064 Dorchester St., Westmount.

H. R. D. GRAY, B.A., M.D. Demonstrator in Obstetrics.

59 Beaver Hall Hill.

C. F. WYLDE, M.D.

Demonstrator in Clinical Medicine and Clinical Microscopy.

101 Crescent Street.

DAVID PATRICK, M.D.

Demonstrator in Gynaecology.

4174 St. Catherine Street, Westmount.

C. A. Peters, M.D. Demonstrator in Clinical Medicine.

1020 St. Catherine Street, West.

F. M. FRY, B.A., M.D.

Demonstrator in Clinical Medicine. 577 Dorchester Street W.

R. P. CAMPBELL, B.A., M.D.

Demonstrator in Pathology and Assistant Demonstrator in

A. C. P. HOWARD, B.A., M.D. 343 Dorchester Street W. Demonstrator in Clinical Chemistry, Clinical Medicine and

Diseases of Infants and Children. 56 Mackay Street.

CHARLES K. P. HENRY, M.D.

Demonstrator in Anatomy and Assistant Demonstrator

in Clinical Surgery. 4549 Sherbrooke St., Westmount.
Colin K. Russel, B.A., M.D.
Demonstrator in Clinical Medicine. 423 Guy Street.

W. H. JAMIESON, M.D.

Demonstrator in Oto-Laryngology. J. W. DUNCAN, M.D.

209 Peel Street.

27 Bishop Street.

Demonstrator in Obstetrics.

CAMPBELL HOWARD, M.D.

Demonstrator in Chemistry.

T. P. SHAW, M.D.

Demonstrator in Physiology.

A. R. PENNOYER, M.D.

Demonstrator in Clinical Surgery. 98 Mackay Street.

W. P. BURNETT, M.D.

Demonstrator in Dermatology. A. MACKENZIE FORBES, M.D.

Assistant Demonstrator in Orthopoedic Surgery.

F. T. TOOKE, B.A., M.D.

231 Stanley Street.

Demonstrator in Ophthalmology. S. HANFORD MCKEE, B.A., M.D.

368 Mountain Street.

Demonstrator in Bacteriology and Ophthalmology.

ROBERT H. CRAIG, M.D.

249 Mountain Street.

Demonstrator in Rhinology and Laryngology.

186 Peel Street.

W. W. Francis, A.B., and M.D. (Johns Hopkins).

Demonstrator in Pathology and Assistant Demonstrator
in Clinical Medicine.

125 Mansfield Street.

W. G. TURNER, M.D.

Demonstrator in Orthopoedic Surgery. 208 Peel Street.

J. G. Browne, B.A., M.D.

Assistant Demonstrator in Clinical Medicine 1171 St. Denis Street.

E. M. von Eberts, M.D.

Assistant Demonstrator in Clinical Surgery. 107 Metcalfe Street.

W. H. P. Hill, M.D.

Assistant Demonstrator in Clinical Surgery. 86 Mackay Street.

W. E. Nelson, M.D.

Assistant Demonstrator in Anatomy. 19 St. Mark Street.

W. H. Donnelly, M.D.

Assistant Demonstrator in Bacteriology. 543 St. Antoine Street.

A. G. McAuley, M.D.

Assistant Demonstrator in Clinical Medicine.

475 St. Antoine Street.

J. W. Duncan, M.D.

Assistant Demonstrator in Obstetrics.

89 Ottawa Street.

J. APPLETON NUTTER, B.A., M.D.

Assistant Demonstrator in Anatomy.

45 Cathcart Street.

A. L. C. GILDAY, B.A., M.D.

Assistant Demonstrator in Physiology.

D. W. McKechnie, M.D.

Assistant Demonstrator in Clinical Medicine.

#### DENTAL DEPARTMENT.

Peter Brown, L.D.S.

Professor of Operative Dentistry and Operative
Technique.

14 Phillips Square.

Fred. G. Henry, D.D.S.

Professor of Dental Pathology, Dental Materia-Medica
and Therapeutics: Corner Guy and St. Catherine Streets.

D. James Berwick, D.D.S.

Professor of Prosthetic Dentistry, Metallurgy and Crown
and Bridge Work.

485 St. Catherine Street W.

JAMES B. MORRISON, D.D.S.

Lecturer on Orthodontia. 14 Phillips Square.

J. H. Springle,

Lecturer in Dental Anatomy (Human and Comparative)

and in Dental Surgery.

591 St. Catherine Street, W.

A. D. Angus, D.D.S.

Demonstrator on Operative Technique.

14 Phillips Square.

W. D. SMITH, D.D.S.

Demonstrator in Prosthetic Dentistry and Bridge Work.

Room 82 Bank of Otttawa Building, St. James Street.

# FACULTY OF AGRICULTURE.

(Macdonald College.)

J. W. ROBERTSON, LL.D., C.M.G.  Principal.  Macdona	ald College, St	e Anne de Bellevus
1. C. HARRISON, D.S.A. (10fonto).	O.Sc.	e. Time de Benevue.
Protessor of Bacteriology.	"	u
WILLIAM LOCHHEAD, B.A., M.Sc.		
Professor of Biology	"	"
CARLETON J. LYNDE, Ph.D.		
Professor of Physics.	"	"
LEONARD S. KLINCK, B.S.A., M.S.		
Professor of Husbandry.	"	"

For other Officers of Instruction in the several departments of Macdonald College, see page 347.

McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

See page 370.

# Emeritus Professors.

(Retaining their Rank and Titles, but retired from work.)

ALEX. JOHNSON, M.A., LL.D., D.C.L., F.R.S.C.

Vice-Principal Emeritus, and Emeritus Professor in the
Faculty of Arts.

453 Sherbrooke Street, West.

Hon. Matthew Hutchinson, D.C.L. Emeritus Professor in the Faculty of Law.

Sherbrooke, Que.

Hon. J. Emery Robidoux, D.C.L.

Emeritus Professor in the Faculty of Law. 151 University Street.

Gurrer P. Gurryood M.D., M.R.C.S. (England), F.R.S.C.,

GILBERT P. GIRDWOOD, M.D., M.R.C.S. (England), F.R.S.C., F.I.C., F.C.S.

Emeritus Professor in the Faculty of Medicine.

111 University Street.

J. CLARK MURRAY, LL.D., F.R.S.C.

Emeritus Professor in the Faculty of Arts. 20 McTavish Street.

Duncan McEachran, D.V.S., F.R.C.V.S.

Emeritus Dean and Professor in the Faculty of Comparative
Medicine and Veterinary Science. 176 University Street.

#### SEPTEMBER, 1908.

- Tuesday
- 2 Wednesday
- Thursday 3
- Friday
- Saturday
- SUNDAY
- Monday
- 8 Tuesday
- Wednesday Thursday 10
- Friday
- 12 Saturday
- SUNDAY
- 14 Monday
- Wednesday Thursday
- Friday
- 19 Saturday
- SUNDAY
- 21 Monday
- Tuesday Wednesday
- Thursday
- Friday
- 26 Saturday
- SUNDAY
- Monday 28 Tuesday 29
- Wednesday

Register opens for students in Medicine.

Matriculation, Exhibition, Scholarship and Supplemental Examinations. Finance Committee.

Supplemental Examinations in Applied Science.

Lectures in Law begin. Introductory Lecture in Medicine. Lectures in Medicine begin

Registration of First Year Students. Registration of First Year Students continued. New Medical Buildings opened, 1901. Registration of Students pre-

viously enrolled.

Lectures in Arts and Applied Science begin. Engineering Building Committee. Chemistry and Mining Building Committee. Registration continued. Exemption Examination in English, Faculty Applied Conservatorium of Music opens. Science.

Meeting of Faculty of Arts.

Meeting of Governors.

#### OCTOBER, 1908.

- Thursday
- Friday
- Saturday
- SUNDAY
- Monday
- Tuesday Wednesday
- Thursday
- Friday
- 10 Saturday
- Monday
- Tuesday Wednesday
- Thursday Friday
- Saturday
- SUNDAY
- 19 Monday
- Tuesday Wednesday
- Thursday Friday
- 24 Saturday
- SUNDAY
- Monday
- Tuesday
- Wednesday
- Thursday
- 30 Friday 31 Saturday

Meeting of Teachers' Training Committee. Meeting of Faculty of Medicine.

Summer Essays in Applied Science to be sent in. Physics Building Com-

- Meeting of Faculty of Applied Science. Founder's Birthday. University Lecture
- Physics Building Committee. Finance Committee.
- Sports Day. Meeting of Faculty of Arts. William Molson Hall opened, 1862.
- Museum Committee. Library Committee.
- Regular Meeting of Corporation. Annual Report to the Visitor. Conservatorium of Music opened, 1904.
- Register in Medicine closes.
- Engineering Building Committee. Chemistry and Mining Building Com-

Meeting of Faculty of Arts.

Meeting of Governors.

New Library opened, 1893.

Note.-Meetings of the Faculty of Arts are held at 4 P.M. unless otherwise specified.

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#### NOVEMBER, 1908.

#### SUNDAY

- Monday
- Tuesday Wednesday
- Thursday 5
- Saturday

#### SUNDAY 8

- Monday
- Tuesday
- Wednesday Thursday 12
- 13 Friday
- Saturday 14

#### SUNDAY

- 16 Monday
- Tuesday
- Wednesday
- Thursday Friday 19
- 20 21 Saturday

### SUNDAY

- Monday 23
- Tuesday
- Wednesday
- Thursday 26
- 27 Friday 28 Saturday

#### 29 SUNDAY

30 Monday

Meeting of Faculty of Applied Science.

Meeting of Faculty of Medicine.

Edward VII born, 1841.

Finance Committee. Meeting of Faculty of Arts.

Engineering Building Committee. Chemistry and Mining Building Com-

Meeting of Governors.

#### DECEMBER, 1908.

- Tuesday Wednesday 2
- 3 Thursday
- Friday
- 5 Saturday

# 6 SUNDAY

- 7 Monday
- Tuesday Wednesday
- 9
- Thursday 10 Friday
- 12 Saturday

#### SUNDAY

- 14 Monday
- Tuesday
- Wednesday Thursday
- 17
- Friday 19 Saturday

#### 20 SUNDAY 21 Monday

- 22 Tuesday Wednesday 23
- Thursday 24
- Friday 25 26 Saturday

#### SUNDAY

- 28 Monday
- Tuesday
- 31 Thursday
- Wednesday

- Meeting of Academic Board.
  Physics Building Committee.
  Meeting of Faculty of Arts. Meeting of Teachers' Training Committee.
  Meeting of Faculty of Medicine.

Meeting of Faculty of Applied Science. Museum Committee. Library Committee.

Regular Meeting of Corporation.

Finance Committee

Lectures for first term in Arts and Applied Science end.

Christmas Examinations in Arts begin.

Christmas Examinations in Applied Science begin.

Lectures for first term in Medicine end. Lectures for first term in Law end. Meeting of Faculty of Arts.

Chemistry and Mining Building opened, 1898.

Engineering Building Committee. Chem. Committee. Christmas Vacation begins. Chemistry and Mining Building

Christmas Day.

Meeting of Governors.

- Friday Saturday
- SUNDAY
- Monday Tuesday
- Wednesday Thursday
- Friday 9 Saturday
- SUNDAY
- Monday
- Tuesday
- Wednesday
- Thursday 14
- Friday 16 Saturday
- SUNDAY
- 18 Monday
- Tuesday 19
- Wednesday Thursday
- Friday 23 Saturday
- SUNDAY
- Monday
- Tuesday Wednesday
- 28 Thursday
- Friday 30 Saturday
- SUNDAY

- Meeting of Faculty of Medicine.
- Second Term opens in all Faculties. Meeting of Faculty of Applied Science
- Finance Committee.
- M eeting of Faculty of Arts.
- Engineering Building Committee. Chemistry and Mining Building Com mittee.
- Queen Victoria died,1901.
- Meeting of Governors.

#### FEBRUARY, 1909

- Monday
- Tuesday
- Wednesday 3
- Thursday 5 Friday
- Saturday
- SUNDAY
- Monday
- Tuesday
- Wednesday Thursday
- Friday
- 13 Saturday
- SUNDAY
- 15 Monday
- Tuesday
- Wednesday
- Thursday 18
- Friday 19
- 20 Saturday
- 22 Monday
- 23 Tuesday Wednesday
- 25 Thursday
- Friday Saturday
- SUNDAY

- Meeting of Faculty of Applied Science.

- Meeting of Academic Board.
  Physics Building Committee.
  Meeting of Faculty of Arts. Meeting of Teachers' Training Committee.
  Meeting of Faculty of Medicine.
- Museum Committee. Library Committee.
- Regular Meeting of Corporation Finance Committee.
- Engineering Building Committee. Chemistry and Mining Building Com-
- Meeting of Faculty of Arts.
- Meeting of Governors.
- Physics and Engineering Buildings opened, 1893. Ash Wednesday.

#### xxxviii

#### MARCH, 1909

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- Tuesday Wednesday
- Thursday
- Friday
- Saturday

#### SUNDAY

- Monday
- Wednesday Thursday
- Friday
- Saturday

- 15 Monday
- 16
- Tuesday Wednesday Thursday
- 19
- Friday Saturday 20
- SUNDAY

- Monday Tuesday 22
- Wednesday 24
- Thursday
- Friday 27 Saturday

#### SUNDAY

- Monday
- Tuesday
- Wednesday

Meeting of Faculty of Applied Science.

Meeting of Academic Board

Meeting of Faculty of Arts. Meeting of Faculty of Medicine.

Finance Committee.

Engineering Building Committee. Chemistry and Mining Building Committee

Meeting of Faculty of Arts.

Meeting of Governors.

Last day of Lectures in Arts, Law and Applied Science.

#### APRIL, 1909.

- 1 Thursday
- Friday
- Saturday

- Monday
- Tuesday Wednesday
- Thursday
- Friday
- 10 Saturday

#### 11 SUNDAY

- Monday 12
- 13 Tuesday Wednesday
- 14 Thursday
- Friday
- 17 Saturday

#### SUNDAY

- 19 Monday
- Tuesday Wednesday 20
- 21
- Thursday Friday 23
- Saturday

- Monday 26
- Tuesday 27
- Wednesday
- Thursday 29
- Friday 30

- Last day for receiving M.A. and M.Sc. theses. Examinations in Applied Science begin.
  Meeting of Teachers' Training Committee.
- Meeting of Faculty of Medicine.

Meeting of Faculty of Applied Science. Museum Committee. Library Committee. Examinations in Arts and Law begin,

Finance Committee. Physics Building Committee. Meeting of Faculty of Arts. Good Friday.

Easter Sunday.

Museum Committee. Library Committee.

Regular Meeting of Corporation.

Engineering Building Committee. Chemistry and Mining Building Committee.

Meeting of Faculty of Arts.

Meeting of Governors.

Onvocation for Conferring Dagrees

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#### SUNDAY

- 3 Monday
- Tuesday Wednesday
- Thursday Friday
- Saturday

#### SUNDAY

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday 14
- 15 Saturday

#### SUNDAY

- 17 Monday
- Tuesday Wednesday 18
- 19
- Thursday 20
- Friday

### Saturday

- 23 SUNDAY
- Monday Tuesday
- Wednesday
- Thursday
- Friday
- 29 Saturday SUNDAY
- 31 Monday

Meeting of Faculty of Medicine.

Meeting of Faculty of Applied Science.

Finance Committee.

Engineering Building Committee. Chemistry and Mining Building Committee.

Meeting of Governors.

#### JUNE, 1909

- Tuesday Wednesday
- Thursday
- Friday
- Saturday

#### 6 SUNDAY

- Monday
- Tuesday
- Wednesday
- Thursday Friday
- 12 Saturday

#### 13 SUNDAY

- Monday
- Tuesday Wednesday 16
- Thursday
- 18 Friday
- 19 Saturday

#### SUNDAY

- 21 Monday
- Tuesday 23
- Wednesday
- Thursday
- Friday
- Saturday

#### SUNDAY

- 28 Monday
- Tuesday
- 30 Wednesday

- Graduate course in Medicine begins.
- Physics Building Committee.
  Meeting of Teachers' Training Committee.
- Meeting of Faculty of Medicine.
- Museum Committee. Library Committee
- Regular Meeting of Corporation
- Finance Committee.

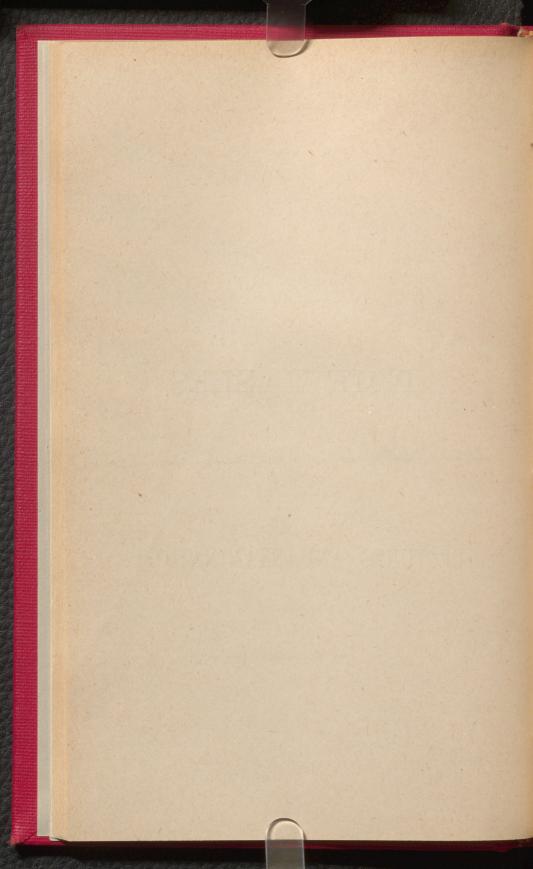
- Engineering Building Committee. Chemistry and Mining Building Committee
- School of Education, Macdonald College, closes.
- Meeting of Governors

JULY, 1909 xl Thursday 2 Friday 3 Saturday SUNDAY 5 Monday 6 Tuesday 7 Wednesday 8 Thursday 9 Friday 10 Saturday 11 SUNDAY 12 Monday 13 Tuesday 14 Wednesday 15 Thursday 16 Friday 17 Saturday 18 SUNDAY 19 Monday 20 Tuesday 21 Wednesday 22 Thursday 23 Friday 24 Saturday 25 SUNDAY 26 Monday 27 Tuesday 28 Wednesday 29 Thursday. 27 28 29 30 Friday 31 Saturday AUGUST, 1909. SUNDAY 2 Monday
3 Tuesday
4 Wednesday
5 Thursday
6 Friday
7 Saturday 8 SUNDAY 9 Monday 10 Tuesday 11 Wednesday 12 Thursday 13 Friday 14 Saturday 15 SUNDAY 16 Monday 17 Tuesday 18 Wednesday Peter Redpath Museum opened, 1882. 19 Thursday Friday 21 Saturday SUNDAY 23 Monday 24 Tuesday 25 Wednezday 26 Thursday 27 Friday 28 Saturday SUNDAY 30 Monday 31 Tuesday

# TIME TABLES

OF

LECTURES AND EXAMINATIONS.



FACULTY OF ARTS (SESSION 1908-1909).

# FIRST YEAR-MEN.

Hours.	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY
9	Math.	Math.	German.	Math.	Math.	107
10	Latin.	Latin.	Latin.	Latin.	History.	1.
11	French.	French.	French.	German.	French.	The state of the s
12	Greek. German.	English.		English.	Greek.	
2		Physics.		Physics.		
3	German.	German.	Greek.	Greek.		
4	Beginners' German	Beginners'	Beginners' German.	Beginners' G rman.		
5			100000000000000000000000000000000000000			

## FIRST YEAR-WOMEN.

Нот	URS.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY
	9	Greek.	9 15—10.15* Gymnasium.	History.		French.	Math.
1	0	French.		German. Adv. Latin.	German. Adv. Latin.	10.15-11.15* Gymnasium.	
1	1	Math.	Latin.	Math.	Latin.		
15	2	German.	French.	English.	French.	English.	
2	3		German.	Physics.	Greek.	Physics.	
3	3	Latin.	Math. Latin.	Greek.	Math. (Tutorial)	Latin.	
4	ı	Greek. Beginners' German.	Beginners' German.	Latin (Tutorial)  Beginners'  German.	Beginners' German.		
5	,						

<sup>\*</sup> All women who are undergraduates are required to take two hours per week in the gymnasium.

FACULTY OF ARTS (SESSION 1908-1909).

SECOND YEAR-MEN.

Hours.	MONDAY	TUESDAY	WEDNESDAY	THURSDAY.	FRIDAY.	SATURDAY
9	Latin	German.	French.	French.	Latin.	
10	Chemistry. Hebrew.	Logic and Psychology.	Chemistry. Hebrew.	Chemistry. Hebrew.	Logic and Psychology	
11	Greek.	Latin.	English	Latin.	Greek.	Bot. Lab. (b
12	French.	English	History.	English.	French.	Bot. Lab. (b)
2	English.	Mathematics. Biology.	Mathematics. Bot. Lab. (b)	Logic and Psychology.	Mathematics. Biology.	
3	Economics. Chem. Lab.	Greek. Zool. Lab. (a)	Economics. German. Bot. Lab. (b)	German. Greek. Chem. Lab.	German. Hebrew. Zool. Lab. (a)	
4	Chem. Lab.	Zool. Lab. (a)		Chem. Lab.	History. Zool. Lab. (a)	
5						

# SECOND YEAR-WOMEN.

Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Latin.	Latin.	French.	French.	Latin.	
10	History. Chemistry.	Logic and Psychology.	Chemistry.	History. Chemistry.	Logic and Psychology.	
11	Greek. German.	German.	English.	Gymnasium.	Greek. German.	Zool. Lab. (a) Bot. Lab. (b)
12	French	English.	Latin.	English.	French.	Zool. Lab. (a) Bot Lab. (b)
2	English. Biology (a)	Mathematics. Biology (b)	Mathematics. Biology (a) Bot. Lab. (b)	Logic and Psychology.	Mathematics. Biology (b)	
3	Economics. Chem. Lab.	Greek. Zool. Lab. (a)	Economics. Zool, Lab. (a) Bot. Lab. (b)	Greek. Chem. Lab.		
4	Chem. Lab.	Zool. Lab.(a)	German. Zool, Lab. (a)	Chem. Lab.		
5					100	

<sup>(</sup>a) Before Christmas.

FACULTY OF ARTS (SESSION 1908-1909). THIRD AND FOURTH YEARS.

Hours	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Geology. Mechanics. Sanskrit.		Geology. Astronomy Sanskrit.	Latin. Hebrew	Zoology.	Chem. Lab. Geol. Lab.
10	German. History. Mathematics Botany. Physics (B).	German. History. Mathematics.	German, History, Mathematics	German, History. Mathematics. Botany, Physics (B)	Geology. Mechanics. Sanskrit.	Chem. Lab. Geol. Lab.
11	Chemistry. English (4 B) Greek.	Latin. Hebrew. English (4 A)	Latin. Hebrew.	Psychology. Greek.	Chemistry. Latin. Hebrew. English (4 B)	Chem. Lab. Geol. Lab.
12	Economics. French. Moral Philos.	Economics. French. Moral Philos. Physics (A)	Eng. Comp.	Economics. French. Moral Philos. Physics (A)	Economics, French. Moral Philos. Greek.	Geol. Lab.
2	Comp. Philol. Polit. Science Chem. Lab. Physics Lab. Zool. Lab.	Greek, Mechanics. Sanskrit. Pedagogy.	Polit. Science.	Comp. Philol. Polit. Science. Physics Lab. Zool. Lab.	Polit. Science. Pedagogy	
3	Psychology. Chem. Lab. Physics Lab. Zool. Lab.	English (3 B) Mathematics. Psychology. Bot. Lab.	Eng. Comp. III. Chem. Lab. 4th year.	Psychology. Physics Lab. Zool. Lab.	English (3 B) Bot. Lab.	, ( ) -
4	Logic & Meta. Roman Law. Chem Lab. English (3 A)	Logic & Meta. Roman Law. Bot. Lab.	Logic & Meta. Roman Law. Chem. Lab. English (4 A)	Roman Law. English (3 A)	Logic & Meta. Cons. Law. Rom. Law. Bot. Lab.	
5		Const. Law. Botany Lab.	Chem. Lab.	Const. Law.	Bot. Lab.	

<sup>(</sup>A) Heat, Light and Sound. (B) Magnetism and Electricity. (a) During Second Term.

A student must so select courses, both ordinary and continuation, as to avoid conflict of lecture hours. In cases where the above requirement has not been observed and difficulties have consequently arisen, no plea of inadvertance on the part of the student will be received by the Faculty.

FACULTY OF LAW (SESSION 1908-1909.)

### FIRST YEAR.

TUESDAY, 15TH SEPT., TO FRIDAY, 20TH NOVEMBER-10 WEEKS.

Tue	SDAY, 15TH S	EPT., TO FRII	)AY, 20TH N	OVEMBER—10	WEEKS.
Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	Legal History. Prof. McGoun.		Legal Hist. Prof. McGoun.	Procedure. Mr. McDougall	Legal Hist. Prof. McGour
4.00	Roman Law. The Dean.	Pleading. Mr. Surveyer.	Law. The Dean.	Heading. Mr. Surveyer.	Roman Law The Dean
5.00	Persons. Mr. McDougal	Const. Law. The Dean	Persons. Mr. McDougall.	Const. Law. The Dean	Persons. Mr.McDouga
	Monday, 23	RD Nov., TO	FRIDAY, 18TI	H DEC.—4 WI	EEKS.
Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	Pleading. Mr. Surveyer	Procedure. Mr. McDougall.	Pleading. Mr. Surveyer.	Proced. Mr. McDougall.	Pleading Mr. Surveyer
4.00	Roman Law. The Dean.		Constitutional Law. The Dean.		Roman Law The Dean.
5.00	Real Rights. Prof. Marler	Roman Law. The Dean.	Real Rights. Prof. Marler.	Roman Law.	Real Rights.
	Mônday, 41	en Jan., to F	RIDAY, 5TH	MARCH—9 WE	CEKS.
Hours.	Monday.	TUESDAY.	WEDNESDAY,	THURSDAY.	FRIDAY.
8.30		Pleading. Mr. Surveyer.	The state of the s	Pleading. Mr. Surveyer.	
4.00	Roman Law. The Dean.		Roman Law.		Roman Law.
5.00	Real Rights. Three Weeks.	Constitutional Law. The Dean.	Real Rights.	Const. Law.	Real Rights.
Mon	NDAY, 8TH M.	ARCH, TO WEI	DNESDAY, 31s	ST MARCH-3	WEEKS.
Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30		Pleading. Mr. Surveyer.		Pleading. Mr. Surveyer.	
4.00	Roman Law.	Roman Law.	Roman Law.	Roman Law.	Constitutional Law. The Dean
5.00	Criminal Law. Prof Mr.Justice Davidson.	Criminal Law.	Criminal Law.	Constitutional	Criminal Law.

FACULTY OF LAW (SESSION 1908-1909). SECOND AND THIRD YEARS.

TUESDAY, 15TH	SEPT.,	то	FRIDAY,	20тн	NOVEMBER-10	WEERS
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Hours.		TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8.30	Gifes and Wills. Prof. Mr.Justice Doherty.		Gifts and Wills.	Marriage Covenants.	Gifts & Wills.	9 a.m. Marriage Covenants.
4.00	Law. Prof. Mr. Justice Doherty.	Obligations.	Commercial Law.	Obligations. The Dean.	Comm. Law.	ovenants.
5.00	Criminal Law. Prof. Mr. Justice Davidson.	Commercial Law. Prof. R C. Smith	Criminal Law.	Comm. Law.	Crim. Law.	

# Monday, 23rd Nov., to Friday, 18th Dec.-4 weeks.

Hours.		TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8.30	Gifts and Wills. Prof. Mr. Justice Doherty.	Covenants.	Gifts and Witls.		Gifts & Wille	9 a m. Marriage
4.00	Commercial Law.	Prof. Geoffrion Obligations.	Commercial	Prof. Geoffrion. Obligations.		Covenants.
4.00	Prof. Mr. Justice Doherty.	The Dean.	Law.	The Dean.	Commercial Law.	
5.00	Criminal Law.	Law. Prof. Smith.	Criminal Law.	Comm. Law. Prof. Smith.	Criminal Law	

# Monday, 4th Jan., to Friday, 5th March-9 weeks.

Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8,30	Prof. Mr. Justice Doherty.	Partnership. Prof. McGoun.	Civil Proced.	Partnership.	Civil Proced.	9 a.m.  Marriage Covenants.
4.00	Law. Prof. Marler. 6 weeks. N.B. This course will begin after the completion of Prof. Mar- ler's course to the first year.	The Dean.	Real Property Law.	Obligations.	Real Property Law.	Prof, Geoffrion
5.00	Public Inter- nat. Law. Prof. Lafleur.	Procedure Prof.Mr. Justice Doharty.	P. I. L.	[Civ. Proced.	P. I. L.	

# Monday, 8th March, to Wednesday, 31st March-3 weeks.

Hours.	MONDAY.	TUI SDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
8 30	Partnership. Prof. McGoun.		Partnership.		Partnership.	Marriage Covenants. Prof.Geoffrio
4.00	R. P. L.	Obligations.	R. P. L.	Obligations,	R. P. L.	
5.00	Public Internat. Law. Prof. Lafleur	Procedure, Prof.Mr. Justice Doherty.	Public Int rnat Law.	Civil Proced.	Pub. Internat.	7.27

FACULTIES OF APPLIED SCIENCE AND MEDICINE (SESSION 1908-1909).

The Time Tables of Lectures in these Faculties will be issued to students at the commencement of the session.

MATRICULATION EXAMINATION.

SEPTEMBER, 1908.

THURSDAY, SEPTEMBER 10TH.

Morning 9–10.30.—English Grammar.

10.30-11.—English Dictation.

11.12.—English Composition (Prelim.)

Afternoon 2.30-4.30.—English Literature and Composition.

4.30-6.—History.

FRIDAY, SEPTEMBER 11TH.

Morning 9-11.—Latin Composition and Sight.

II-I2.30.—Arithmetic.

Afternoon 2.30-4.30.—Latin Books.

SATURDAY, SEPTEMBER 12TH.

Morning 9-11.—French.

I I-I2-30.—Trigonometry.

Afternoon 2.30-4.30.—German.

4.30-6.—Chemistry and Botany.

Monday, September 14th.

Morning 9-1 I.—Geometry, Part I.

11-12.30.—Physics and Physiography.

Afternoon 2.30–4.—Algebra, Part II. 4–5.30.—Geometry, Part II.

TUESDAY, SEPTEMBER 15TH.

Morning 9-I I.—Algebrà, Part I.

I I-I.—Greek Composition and Sight.

Afternoon 3-5.—Greek Books.

FACULTY OF ARTS.

EXHIBITION, SCHOLARSHIP AND SUPPLEMENTAL EXAMINATIONS, SEPTEMBER, 1908.

DATE.	Hour.	Supp. to First Year Sessional.	Second Year Exhibitions.	Supp. to Second Year Sessional.	Scholarships (Third Year).	Supp. to Third Year Sessional.*
Thursday10	9	English Literature,	English Literature (Shakspere); His- tory.	English Literature.	English Literature (Shakspere and Milton).	English Literature
	2.30	English Composi- tion and History	English Literature. (Milton, Johnson).	English Composition.	English Literature (Burke & Arnold).	English Composition.
Friday 11	91	Latin Books.	Latin Books.	Latin Books.	Latin Texts.	Latin Books.
	2 30	atin Composition Sight Translation and History.	Latin Composition. Sight Translation and History.	Latin Composition, Sight Translation, History and Literature.	Latin Composition, Sight and Roman History,	Latin Composition Sight Translation History and Literature.
Saturday .12	9	French.	French Texts.	French.	French Looks. Economics.	French. Botany.
	2.30	German.	German Texts.	German. Semitics.	French Composition and Sight.	German.
Monday14	9	Algebra.	Geometry.	Algebra.	Animal Biology. Analytic Geometry. Rom. Hist. and Lit., 9-10.30. Greek Hist. and Lit., 10 30-12.	Mathematics.
(市)	2.30	Trigonometry.	French Comp. and Sight. Geometry (minor), 4 to 5.30.	Psychology.	German Books. Plant Biology.	Chemistry.
Tuesday15	9	Greek Books.	Greek Books. Algebra and Trigonometry.	Greek Books. Logic.	Greek Texts. Physics. Psychology.	Greek Books.
	2.30	Greek Composi- tion, Sight Trans- lation and History.	Greek Composition, Sight Translation and History.	Greek Composition, Sight Translation and History. Animal Biology.	Chemistry. Greek Composition. Sight and History. Logic Economics.	
Wednesday. 16	9	Physics.	Theory of Equations. German Comp. and Sight.	Comes and Solid Geometry. Plant Biology.	Infinitesimal Calculus. German Comp. & Sight.	Political Economy
	2.30	Goemetry.	Physics.	Chemistry. History and Economics	Modern History and English Comp. Logic (Descartes).	

<sup>\*</sup> Periods for other subjects to be arranged at the time of the Examination.

FACULTY OF ARTS.

# CHRISTMAS EXAMINATIONS, 1908.

	FIRST YEAR.	SECOND YEAR.	THIRD AND FOURTH YEARS.
Monday, Dec. 14thA.M.	Latin.	Latin.	Latin.
"P.M.	Trigonometry	Geometry.	English.
Tuesday, Dec. 15thA.M.	Greek.	Greek and Comm. Geog.	Math.; Moral Phil.
P.M.	Spanish.	Chemistry.	Geology.
Wednesday, Dec. 16thA.M.	Physics.	Psychology.	Greek; Econom.; Econ. Hist
" Р.М.	French.	French.	Physics (Third Year).
Thursday, Dec. 17thA.M.	Geometry.	English.	Moral Philosophy; French
" P.M.	German.	German. Hebrew.	German; Italian; Botany
Friday, Dec. 18thA.M.	English.		Pol. Sci.; Greek Lit.
P.M.	9	Biology.	Zoology; Political Science
Saturday, Dec. 19thA.M.			Physics.

FACULTY OF APPLIED SCIENCE.
CHRISTMAS EXAMINATIONS, 1908.

(Subject to alteration by the Faculty.)

DAY & DATE.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR.
Tuesday, Dec. 15th, A.M.	Dynamics.	Arch. Ornament	Chemistry Cont. Cur. Mchy. Arch. Ornament	
P.M.		Chemistry (A) Arch. Orn. Des.	Geology Arch. Örn. Des.	Arch. Orn. Des.
Wedn'sday, Dec. 16th, A.M. P.M.	Exp. Phys.	Surveying. Arch. Hist. Det.	Roads and Canals Arch. Hist. Det. Assaying	Ore Dressing.  Roads and Canals  Can. Geol. (C)  Arch. Hist. Det.
Thursday Dec. 17th, A.M.		Mechanics.	Qual Anal. Arch. Specifications	Hydraulics. Arch. Specifications
P.M.			Surveying.	Hydr. Lab. Arch. Design.
Friday, Dec. 18th, A.M.		Anal. Geom. Arch. Des.	Arch. Perspec. Des. Geom.	Prac. Astron. Mach. Design. Metallurgy. Arch. Design.
P.M.	Geometry	Arch. Des.	Arch. Des. Mechanics	Arch. Design.
Saturday, Dec. 19th. A.M.	Geom. Dr.	Exp. Physics	Metallurgy Hist. of Arch.	Elec. Lighting Hist. of Arch.

Note.—Examinations begin at 9 a.m. and 2.30 p.m. Gowns will not be worn. C—Chemistry Building.

A—With Arts Classes.

All other examinations in the Main Examination Hall.

FACULTY OF ARTS.

SESSIONAL EXAMINATIONS, 1909.

Morning examinations commence at 9; afternoon examinations at 2.30.

THE RESIDENCE	37,1		1	
DAY AND DATE		FIRST YEAR.	SECOND YEAR.	THIRD AND FOURTH YEARS.
Monday, April 5th	.A.M.		German.	English Composition.
4	P.M.		German.	English.
Tuesday, April 6th	. A.M.	Physics.		Physics, (3rd Year).
	P.M.			Physics, (4th Year).
Wednesday, April 7th	.A.M.	English.	English.	French; Econ.; Moral Ph.
	P.M.	English.	English.	French; Econ.; Moral Ph.
Thursday, April 8th	.A.M.	Latin.	Latin.	Latin; Hebrew.
	P.M.	Latin.	Latin.	Mechanics; Latin; Hebrew
Monday, April 12th	.A.M.	Algebra.	Chemistry.	Chemistry.
"	P.M.	Trigonometry.	Chemistry.	Chemistry; English.
Tuesday, April 13th	A.M.		Hist. & Econ.	Geology; Sanskrit;
a	P.M.		Hist. & Econ.	Geology; Sanskrit.
Wednesday, April 14th	.A.M.	French.	Greek.	Logic & Meta.; Botany.
u A	P.M.	French.	Greek.	Logic & Meta.; Botany.
Thursday, April 15th	A.M.	Greek.	French.	{ History; Greek, German; Math.
"	P.M.	Greek.	French.	{ History; Greek, German; Math.
Friday, April 16th	A.M.	German.	Logic.	S Political Science; Comp. Phil.
"	P.M.	German.	Hebrew.	English.
Monday, April 19th	A.M.		Mathematics. Botany;Zoology	{Psychology; Zoology.
"	P.M.		Mathematics. Zoology.	{ Psychology; Zoology.

FACULTY OF APPLIED SCIENCE.—APRIL EXAMINATIONS, 1909.

FACULTI OF A	PPLIED SCIEN	CR.—ATRIL 1	AMINATIONS, 16	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
DAY AND DATE.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR,
Thursday, April 1,A.M.	Desc. Geom.(/)		M-1/-	
Monday, April 5A.M.			Prac. Astron. Mech. Mach.	Mech. Mach. Min. Anal. (C)
Tuesday, April 6 A M.	Physics. (1) (A)	Exp. Phys.	Ore Dressing, Munic, Eng. Prof. Prac. (1a)	Munic, Eng. Prof. Prac. Economics (8)
P.M.	Exp. Phys.			Min. Design (C)
Wednesday, April 7A.M.		Hist, Arch. (1a)	Mach. Des. R. R. Eng. (3) Hist. Arch. Mining.	Elect. Eng. A. C. Machy. Mach. Des. Hist. Arch.
P.M.		Calculus.		Phys. & P.Geol. (C)
Thursday, April 8,A.M.		Elem, Arch.	Th. of Des. (1) Ind. Chem. Str. Mat.	Elec. Eng. (8) Modern Arch, Th. of Str. (3) & (1a) Met. Cu. Pb. Mech. Eng. Elec. Tract. (D)
Monday, April 12A.M.	Math. (1) (A)	Surveying		Law. Petrog. (C) Arch. Det. (D) Designing (D)
P.M.	Math. (1) (A)	Arch. Det. (D)	Specif. Contracts. Anal. Chem. Arch. Det. (11)	Designing (D) Arch. Det. (D)
Tuesday, April 13A.M.	Algebra Arch. Det. (D)	Ornament (D)	Geology (A) Frt, Serv. (8) Ornament (11) C. C. Mach. (D)	Mining Thermo, Lab. Psgr, Serv. (8) Anal. Chem. (C)
P.M.		Chemistry	Geology (A)	Accounting (8) Geodesy
Wednesday, April 14A.M.	French (1) (A)		Arch.St. Eng.(1a) Thermodyn. Economics (8) Mineralogy (C)	Mining Machy. Thermodyn. Arch. St. Eng. Phys. Geog. (8)
P.M.	French (1) (A)	Bldg, Con. (1a) ('') Chem. ½ Lab. ( .)	English (8)	
Thursday, April 15 A.M.	Hist. (1) (A)	Mat. Con. Qual. Anal. Arch. (D)	Str. Mat. Lab. Arch. (D)	Mech, Eng. (2nd) Shops & R. H. (8) Ore Dep. 'C' Arch. (D)
P.M.	Hist. (1) (A)	Arch. (D) Chem. $\frac{1}{2}$ Lab. (C)	Str. Eng. El. Meas. Arch. (D)	Arch. (D)
Friday, April 16A.M.		Mcch. Mach,	Metall. (6) Arch. (D)	El. Metall. El. Chem. Hydraulics.
P.M.	Trigonometry.		Mathematics. Phys. Chem. (C) Arch. (D)	Arch. (D) Operating (8) Arch. (D)
Saturday, April 17A.M.		Math. (1) (A) Shopwork Rdg.	Org. Chem. Steam Eng. Desc. Geom. (D)	Hyd. Machy. Signals (8) Arch. (D)
P.M.	Shopwork Rdg	Math. (1) (A)	Mech'l, Eng'ng.	Phys Chem. (C)

<sup>(1)</sup> Arch, Students. (1a) Arch, Engineering. (3) Civil. (7) Mining. (8) Transportation. (A) Examinations with Arts Classes, in Molson Hall. (C) Examinations in Chemistry and Mining Building. (D) Examinations in Drawing Room, Workman Building. All other examinations in Workman Building, large Drawing Room. Gowns will not be worn. Examinations begin at 9 A.M. and 2.30 P.M.

# McGill Aniversity.

# HISTORY AND CONSTITUTION.

# Foundation and Early History.

Almost alone in this respect among Canadian colleges and universities, McGill University owes its origin to a private en-Its founder, the Hon. James McGill, from whom the University takes its name, was born on the 6th October, 1744, in Glasgow, Scotland, where he received his early education and training. Emigrating to Canada before the American Revolution, he engaged in the North-West fur trade, then one of the leading branches of business in Canada. Subsequently he settled in Montreal, and, in partnership with his brother, Andrew McGill, became one of its leading merchants, distinguished for his public spirit and his exertions for the advancement of the city. He was lieutenant-colonel, and subsequently colonel, of the Montreal City Militia, and in his old age, on the breaking out of the American war of 1812, he became brigadier-general, and was prepared to take the field in defence of his country. He also represented the West Ward of Montreal in the Provincial Legislature, and was afterwards a member of the Legislative and Executive Councils. Cultivating and enjoying the society of the few men of learning then in the colony, he took a special interest in the establishment of an educational system in the Province of Quebec. By his will, bearing date the 8th January, 1811, more than two years before his death, which happened on the 19th December, 1813, he bequeathed his property of Burnside and a sum of £10,000 in money to found a college in a provincial university, the erection of which had already been provided for by the generosity of the British Government. Three leading citizens of Montreal were among the trustees appointed under his will, who were directed to convey the subject property of the bequest to the Royal Institution for the Advancement of Learning, a body

which, in 1802, had been incorporated by the Legislature " for the establishment of free schools and the advancement of learning" in the Province of Quebec. The conditions upon which the property was to be transferred to the Royal Institution for the Advancement of Learning were, mainly, that that Institution should, within ten years after the testator's decease, erect and establish on his Burnside estate "a University or College, for the purposes of education and the advancement of learning in this Province," and that the college, or one of the colleges in the University, if established, should "be named and perpetually be known and distinguished by the appellation of McGill College." Owing to persistent opposition by the leaders of one section of the people to any system of governmental education and to the refusal by the Legislature to make the grants of land and money which had been promised, the proposed establishment of the provincial university by the British Government was abandoned.

In so far as the McGill College was concerned, however, the Royal Institution at once took action by applying for a Royal Charter. Such a charter was granted in 1821, and the Royal Institution prepared to take possession of the estate. owing to protracted litigation, this was not surrendered to them till 1829. Commencing then the work of teaching with two faculties, Arts and Medicine, the record of the first thirty years of the University's existence is an unbroken tale of financial embarrassment and administrative difficulties. The charter was cumbrous and unwieldy, and unsuited to a small college in the circumstances of this country, and the University, with the exception of its medical faculty, became almost extinct. But after thirty years the citizens of Montreal awoke to the value of the institution which was struggling in their midst. Several gentlemen undertook the responsibility of its renovation, and, in 1852, an amended charter was secured. Governor-General of Canada for the time being, Sir Edmund Head, became interested in its fortunes, and in 1855, with the advent of a new Principal, an era of progress and prosperity began.

# Government of the University.

By the amended Charter "the Governors, Principal, and Fellows" of the University are constituted a body politic and corporate, with all the usual rights and privileges of corporate bodies. The supreme authority, however, is vested in the Crown, and is exercised by His Excellency the Governor-General of Canada, for the time being, as Visitor. This is a special and important feature of the constitution, for, while it gives the University an imperial character and removes it at once from any merely local or party influence, it secures the patronage of the head of the political system of the country.

The Governors of the University are the members of the Royal Institution for the Advancement of Learning, above mentioned, and in them are vested the management of finances, the passing of University statutes and ordinances, the appointment of professors, and other important duties. Their number is limited to fifteen, and vacancies are filled by the nomination of the remaining members, with the approval of the Visitor. The President of the Board of Governors is, ex-officio, Chancellor of the University.

The **Principal** is the academic head and chief administrative officer. He is appointed by the Board of Governors (of which body he is a member, *ex-officio*). He also holds the office of Vice-Chancellor of the University.

The Fellows are limited to 43 in number, and are selected with reference to the representation of all the faculties and departments of the University, and of the graduates, affiliated colleges, and other bodies.

The Governors, Principal and Fellows, together constitute the Corporation, the highest academical body. Its powers are fixed by statute, and include the framing of all regulations touching courses of study, matriculation, graduation, discipline and the granting of Degrees.

The Principal, the Deans of the several Faculties, the Professors and Associate Professors, and other members, not exceeding ten in number, of the teaching staff, constitute the **Academic Board** of the University, with the duty of considering such matters as pertain to the interests of the University as a whole, and of making recommendations concerning the same.

# RELATION TO OTHER INSTITUTIONS.

# Incorporated and Affiliated Colleges.

Students in 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.

A certificate of "Literate in Arts" will be given to students of Affiliated Colleges who have completed two years' study in one of these Colleges, as undergraduates of McGill University, and have passed the prescribed examinations.

- Macdonald College.—This is an incorporated College of the University, situated at Ste. Anne de Bellevue, about twenty miles from Montreal. Courses leading to the Bachelor's and Master's Degrees in Agriculture are under the control of the Corporation of McGill University; all the short term courses in Agriculture, as well as the courses in Domestic Science, are under the direction of the Macdonald College Committee; and those for diplomas to teach in the Province of Quebec are subject to the immediate supervision of the Teachers' Training Committee. A description of the College buildings and full information as to courses, terms of admission, fees, etc., are given under "Macdonald College."
- The McGill University College of British Columbia, Vancouver, B.C., is a college of the University, at present conducting courses up to the end of the Second Year in the Faculties of Arts and Applied Science. Detailed information is given in another part of the Calendar (see index).
- Victoria College, Victoria, B.C., is affiliated in so far as regards the work of the first two Years in Arts, and the First Year in Applied Science. The Principal of the College, from whom full information can be obtained, is S. J. Willis, B.A.
- Alberta.College, Edmonton, Alta., is affiliated up to the end of the first two Years in Arts. Full information can be obtained from the Principal, Rev. J. H. Riddell, B.A., B.D.

# Affiliated Theological Colleges.

Students of the following affiliated theological colleges may attend the courses of study in Arts, either as undergraduates or as partial students, with such facilities in regard to exemptions as may be agreed on:—

- The Congregational College of Canada, Montreal.—Principal, Rev. E. M. Hill, D.D., 58 McTavish St.
- The Diocesan College of Montreal.—Principal, Rev. E. I. Rexford, M.A., LL.D., 201 University St.
- The Presbyterian College, Montreal, in connection with the Presbyterian Church in Canada.—Principal, Rev. John Scrimger, M.A., D.D., 69 McTavish St.
- The Wesleyan College of Montreal.—Principal, Rev. W. I. Shaw, D.D., LL.D., 228 University St.

Calendars of each of the above Colleges and all necessary information may be obtained on application to the Principals.

# Affiliated High Schools.

Schools in which candidates are prepared for matriculation are reckoned as affiliated schools in that sense.

The following schools prepared successful candidates for matriculation in June, 1907:

All Hallows, Yale, B.C.; Alberta College, Edmonton, Alta.; Army Garrison School, London, Eng.; Ashbury College, Ottawa; Bedford Academy; Bishop's College School, Lennoxville, Que.; Brantford Collegiate Institute, Ont.; Brockville Collegiate Institute, Ont.; Buckingham Academy; Catholic High School, Montreal; Charter House, Surrey, Eng.; Coaticook High School: Commercial and Technical High School, Montreal; Cookshire Academy; Cowansville Academy; Chilliwack High School, B.C.; Crichton School, Montreal; Danville Academy; Diocesan Theological College, Montreal; Dulwich College, London, Eng.; Dunham Ladies' College; Feller Institute, Grande Ligne, Que; Gault Institute, Valleyfield, Que.; Granby High School; Hamilton Collegiate Institute, Ont.; Highfield School, Hamilton, Ont.; Huntingdon Academy; Inverness Academy; Kenora High School, Ont.; King's Hall, Compton; Knowlton Academy; Lachute Academy; Lennoxville Academy; London Collegiate Institute, Ont.; Montreal High Schools; Mt. St. Louis Institute; Nanaimo High School; Ormstown Academy; Ottawa Collegiate Institute; Pointe aux Trembles Schools; Prince of Wales College, P.E.I.; Quebec High Schools; Radley College, London, Eng.; Repton, Derbyshire,

Eng.; Revelstoke High School, B.C.; "Rideau View," Ottawa, Ont.; Rothesay College, N.B.; Rydal-Mount School, Colwyn Bay, Eng.; Sabrevois College, Montreal; Sherbrooke High School; Shortell's Academy, Montreal; St. Alban's School, Brockville, Ont.; St. Andrew's College, Toronto; St. Francis College Grammar School, Richmond, Que.; St. John High School, N.B.; St. John's School, Montreal; St. Patrick's School, Montreal; St. Patrick's School, Montreal; St. Patrick's School, Montreal; St. Paul's School, London, Eng.; Stanstead Wesleyan College; Stratford Collegiate Institute, Ont.; Sutton Academy; Miss Symmers and Miss Smith's School, Montreal; Three Rivers High School; Tonbridge School, Kent, Eng.; Trafalgar Institute, Montreal; Trinity College School, Port Hope, Ont.; Upper Canada College, Toronto, Ont.; Vancouver College, B.C.; Victoria College, B.C.; Waterloo Academy; Western Canada College, Calgary, Alta.; Westmount Academy; Windsor Collegiate School, N.S.; Wykeham House School, Westmount, Que.

## Affiliation to Other Universities.

The University is affiliated to the universities of Oxford, Cambridge and Dublin, under conditions which allow an undergraduate who has taken two years' work, and has passed the Second Year sessional examination in Arts, to pursue his studies and take his Degree at any of those universities on a reduced period of residence.

# FACULTIES AND COURSES. .

The educational work of the University is carried on in McGill College, the Royal Victoria College for Women, and other University Buildings in Montreal; and also in Macdonald College at Ste. Anne de Bellevue; the McGill University College of British Columbia, Vancouver, B. C.; and in the Affiliated Colleges at Victoria, B. C. and Edmonton, Alta.

The several courses offered by the University are as follows:—

# In the Faculty of Arts.

For the Degree of Bachelor of Arts.
" " Bachelor of Science.
" Diploma of Commerce.

# In The Faculty of Applied Science.

For the Degree of Bachelor of Architecture (B. Arch.)
Courses leading to the Degree of Bachelor of Science
(B.Sc)., in the Departments of Architecture, Chemistry,
Chemical Engineering, Civil Engineering, Electrical Engineering,
Mechanical Engineering, Metallurgy, Metallurgical
Engineering, Mining Engineering, and Railways (Transportation.)

# In The Faculty of Law.

For the Degree of Bachelor of Civil Law (B. C. L.)

# In The Faculty of Medicine.

For the Degree of Doctor of Medicine and Master of Surgery (M.D., C.M.)

Course in Dentistry for the Degree of Master of Dental Science (M.D.S.)

Course for the Diploma of Public Health.

#### In the Graduate School.

Courses leading to the Degrees of Master of Arts, Master of Science and Doctor of Philosophy.

### In Macdonald College.

For a Bachelor's Degree in Agriculture. Other courses in the School of Agriculture. Courses in the School of Household Science. The several courses for Teachers' Diplomas.

### In the Conservatorium of Music.

For a Conservatorium Diploma.

For the several certificates of the Associated Board of the Royal Academy of Music and the Royal College of Music, of London, England.

Courses leading to the Degrees of Bachelor of Music (Mus. Bac.) and Doctor of Music (Mus. Doc.)

#### General.

Military Courses for Commissions in the British Army and in the permanent force in Canada.

The Faculty of Arts.—The undergraduate courses of study which lead to the Degree of B.A. or of B. Sc., extend over four sessions of about seven and a half months each. For further particulars regarding these courses see pages 92 et seqq. In the Second Third and Fourth Years extensive options are provided, and certain exemptions are also allowed to professional students.

The undergraduate course in Arts can be taken along with the undergraduate course in Medicine, in seven years, or with that in Applied Science in six years.

The Degrees of B.A. and B.C.L. can be obtained in five years, but only by students who give their whole time to their College work. There is also a six year Double Course in Arts and Law.

A certificate of Literate in Arts is given along with the Degree in Medicine, Applied Science, or Law, to candidates who have completed two years in Arts before entering the professional Faculty.

This certificate of Literate in Arts is also given to students of Affiliated Colleges who have completed the work of the first two years and have passed the prescribed examinations, as undergraduates of McGill University.

The Diploma of Commerce can be obtained after a two years' period of study. For fuller particulars see page 177.

The courses in Arts are open to women (who are educated mainly in separate classes) on equal terms with men. Residential accommodation for women students is provided in the Royal Victoria College.

Holders of the Degree of B.A. from this University are admitted to the study of the learned professions, without preliminary examination, in the Provinces of Canada, and in Great Britain and Ireland, and elsewhere. They will also be granted Academy diplomas to teach in the Province of Quebec, provided they have passed an examination in Pedagogy and have done the required fifty half days of practice teaching.

The Faculty of Applied Science.—The undergraduate courses of study, one leading to the Degree of B.Arch. and the others to that of B.Sc., extend over four sessions, averaging (with summer sessions) about eight months each, and provide a thorough professional training in the Departments mentioned above. For further information see pages 184 et seqq.

The undergraduate course in Arts can be taken along with the undergraduate course in Applied Science in six years.

The Faculty of Law.—The undergraduate course extends over three sessions of eight months each, and leads to the Degree of Bachelor of Civil Law (B.C.L.). Full particulars are given on pages 256 et seqq.

The undergraduate course in Arts can be taken along with the undergraduate course in Law in five years, but only by students who give their whole time to their College work. A Double Course in Arts and Law, extending over six years, has also been provided. For particulars, see page 110.

The Faculty of Medicine.—The undergraduate course of study leading to the Degree of M.D., C.M., extends over five sessions of eight months each; and that leading to the Degree of Master of Dental Surgery extends over four sessions of the same length. For further information see page 274.

The undergraduate course in Arts can be taken along with the undergraduate course in Medicine in seven years. An eight year double course is also provided in Arts and Medicine.

The course in Public Health and Sanitary Science is open to those only who have graduated in Medicine, or who possessome other qualification for practice. Generally speaking, it occupies a period of three months.

The Faculty of Agriculture. — The course of study for undergraduates extends over four sessions of about seven months each, and leads to a Bachelor's Degree.

The course in Agriculture is given in Macdonald College at Ste. Anne de Bellevue and aims to provide a thorough theoretical and practical training in the several branches of the science. For fuller information regarding this and other courses in Agriculture see under "Macdonald College."

The Course in Architecture.—This occupies a period of four years and leads to the Degree of Bachelor of Architecture. The work of the First Year is divided between the Faculties of Arts and Applied Science. During the last three years studies are carried on in Architecture, Building Construction, Ornament and Decoration, Drawing, Designing, Planning, Professional Practice, Sanitation and Heating, Structural Engineering, etc.

There is also a course in Architecture for the Degree of Bachelor of Science.

The Course for the Diploma of Commerce.—This course is not designed merely to impart instruction of a purely technical character. Its object is rather to develop capacity than to give special information. Nevertheless, stress is laid upon those subjects, a knowledge of which is a necessity for business men, and the character of the instruction and the class methods adopted are specially suited to the end in view. Requirements for entrance are given on page 23 and a list of the subjects taken up during the two years of the course will be found on page 178.

The School for Teachers in Macdonald College.—This institution provides a practical and thorough training in the art and science of teaching. It is, especially, a training school for those who wish to obtain Elementary or Model School diplomas to teach under the Protestant Committee of the Council of Public Instruction, Quebec. For full information as to requirements for admission and the programme of studies for the several diplomas, application should be made to Prof. George H. Locke, M.A., Head of the School.

Holders of Model School diplomas from this School are encouraged by the offer of bursaries (see page 46) to enter the classes in the Faculty of Arts for the Academy diploma and for the Degree of B.A.

The School of Household Science in Macdonald College. The courses offered are as follows:—

- (a) Short Courses of three months each.
- (b) A one year Home-Maker Course.
- (c) A two year course leading to a Diploma.

The Conservatorium of Music.—Thorough instruction in all branches of Music is given in the Conservatorium of Music established a few years ago in connection with the University. Pupils are prepared not only for special diplomas granted by the Conservatorium but also for the different examinations of the Associated Board of the Royal Academy of Music and the

Royal College of Music of London, England, which are now carried on throughout Canada by the University. Successful candidates receive certificates bearing the imprimatur of the University as well as that of the Associated Board.

Full details of the requirements for each examination, fees, etc., are published in a separate syllabus, which can be obtained (free), together with specimen Theory papers (price ten cents) and full information, on application to the Secretary of the McGill Conservatorium of Music, 323 Sherbrooke Street West, Montreal.

For information as to the higher courses leading to Degrees in Music, which have been instituted in connection with the Conservatorium see page 181.

The Course in Milltary Science.—This course can be taken by undergraduates in Arts, Applied Science and Law.

The subjects and the number of lectures given in each are as follows:—

- GROUP A. (1) Military History and Strategy, 28 lectures.
  - (2) Tactics, 28 lectures.
- GROUP B. (1) Military Engineering, 20 lectures, (reduced by half in the case of graduates in Applied Science).
  - (2) Military Topography, 20 lectures, (reduced by half in the case of graduates in Applied Science).
- GROUP C. (1) Military Law, 12 lectures.
  - (2) Military Administration, 12 lectures.

The examination may be taken in two parts, Groups A and C or Groups B and C at one time and the remaining Group at another. On passing this examination and obtaining the Degree of B.A., B.Sc., or B.C.L. candidates are eligible for nomination to commissions in the British Army, or the permanent force in Canada.

The Graduate School.—In the Graduate School, courses of instruction are provided leading to the following Degrees

in course:—Master of Arts, (M.A.); Master of Science (M.Sc.); and Doctor of Philosophy (Ph.D.). Full information as to admission and departments in which studies are offered will be found under "Graduate School." (See index.)

To the Committee on Graduate Studies are also submitted all applications for the Degrees of D.Sc. and D. Litt, and these Degrees are granted only on their recommendation.

#### DEGREES.

The Degrees conferred by the University (as may be gathered from the foregoing information) are as follows:—B.A., B.Sc., B. Arch., B.C.L., M.D. C.M., M.D.S., D.D.S., D.C.L., M.A., M.Sc., Ph. D., D.Sc., D. Litt., and LL.D. (Honorary.) For further particulars as to requirements for each see pages 73 to 78

### CLASSES OF STUDENTS.

There are four classes of students in the University:—

- (1) Graduates—students who have previously obtained an ordinary Degree at McGill, or elsewhere, and who are now pursuing courses for the Master's Degree (in Arts or Applied Science), or for the Degree of Ph. D.
- (2) Undergraduates—students who have passed the matriculation examination and who are now pursuing a course leading to a Degree or Certificate in one or other of the several Faculties. In order to obtain undergraduate standing, a candidate must have passed the matriculation examination of the University or some other examination accepted in lieu thereof (see page 20).
- (3) Conditioned Students—those with defective entrance qualifications who are pursuing a full undergraduate course of study and at the same time seeking to obtain undergraduate standing. The conditions must be removed before the student can be admitted to the Second Year. (See Reg. 7, page 20.)
- (4) Partial Students—comprising all those who, not belonging to one of the above classes, are taking a partial course of study in the University. Except as provided below, such students may, subject to the approval of the Professor, attend any class without previous examination.

Persons who wish to take a partial course in the First Year of the Faculty of Arts must, if under the age of eighteen years, first present to the Dean certificates of having taken a satisfactory course of school instruction. In order to obtain admission to the classes in French, intending students must

have passed the University matriculation examination, or an equivalent examination, in that subject.

Partial students who subsequently obtain undergraduate standing by passing the matriculation examination may, as undergraduates, be exempted, at the discretion of the Faculty, from any particular course or courses of lectures which they may have attended as partial students and in which they have passed the sessional examinations.

Partial students who intend to proceed to a degree will be expected to employ the greater part of their time in qualifying themselves to pass the matriculation examination. classes provided for the instruction of conditioned students in matriculation subjects will be available also for partial students who are so qualifying.). In this connection the several Faculties are expected to discourage partial students who are qualifying for matriculation, from attempting more work than they are able to undertake, consistently with the requirements of the matriculation examination, and the Secretary of the Matriculation Board will, after the September examination, send to the Dean of each Faculty a report of the standing of those candidates who have failed in the matriculation examination, for the guidance of the Faculties in connection with the admission of partial students to the First Year.

Except under special circumstances, no student under the age of sixteen is admitted to the First Year courses in Arts, Applied Science or Medicine, or under the age of seventeen to the Second Year, and no student under the age of seventeen is admitted to the course in Law.

All students are required to attend lectures at the University buildings in Montreal, at Macdonald College (for the courses in Agriculture), or at one of the Affiliated Colleges.

### THE ACADEMIC YEAR.

The University Year or Session is divided into two terms, the first extending to the Christmas vacation, and the second from the expiry of the Christmas vacation to the date appointed for the meeting of Convocation for the conferring of degrees.

The Session 1908-1909 will commence in the Faculty of Law on Tuesday, September 15th, 1908; in the Faculty of Medicine on Wednesday, September 16th; and in the Faculties of Arts and Applied Science on Monday, September 21st. It will end in the Faculty of Medicine about Friday, June 12th, 1909, and in the other Faculties on Friday, April 30th, 1909.

Two matriculation examinations (for entrance to all Faculties) will be held in 1908, the first commencing on Monday, June 15th, and the second on Thursday, September 10th.

Second Year Exhibition, Third Year Scholarship and Supplemental Examinations in Arts will begin on Monday, September 14th, 1908. (For time table, see first part of Calendar.)

Supplemental examinations in Applied Science will be held in August and September, commencing in August, on Wednesday, the 19th, and in September, on Monday, the 14th.

The 1908 field work in Surveying will commence on Monday, August 24th. The summer school in Mining is always held at the end of each session.

The annual University Lecture will be delivered on Tuesday, October 6th, 1908.

Summer Classes. During the months of May and June, a series of Summer Classes is conducted, intended mainly, in the first instance, to meet the requirements of students in the first two years of their course. The subjects offered in the

Faculty of Arts are English, Latin, Greek, Mathematics, Physics, Chemistry, Logic, French, German, Elementary Animal Biology and Botany. The fees payable are stated on page 66. Classes will also be conducted in the following subjects of the First Year in the Faculty of Applied Science, if a sufficient number of students apply: Descriptive Geometry, Freehand Drawing, Lettering, Mathematics, Physics, Shopwork. For fees, see page 68.

A Summer School for the training of Librarians will be held during the month of July, 1908. Full information may be obtained from Mr. C. H. Gould, B.A., University Librarian.

For Compulsory Summer work in the Faculty of Applied Science see page 187.

# ENTRANCE REQUIREMENTS.

All matters regarding matriculation are under the control of a Matriculation Board, which is constituted as follows:

(a) The Heads of all Departments which may include

matriculation subjects, ex officio.

(b) The Deans of the several Faculties and the Registrar of the Faculty of Medicine.

(c) Such other members of the teaching staff (or others), as may be appointed annually by Corporation, the Faculty of Arts being given the power, in any emergency, to make an appointment, pro tempore.

### I. Regulations.

I. Matriculation examinations (for entrance into all Faculties) are held only in June and September—in June at McGill College and (on application) at local centres; in September, at McGill College; the McGill University College of British Columbia; and at the affiliated colleges in Victoria, B.C., and Edmonton, Alta.

ALL INQUIRIES RELATING TO THE EXAMINATIONS SHOULD PE ADDRESSED TO THE REGISTRAR OF THE UNIVERSITY.

For the convenience of candidates in Great Britain, who are not otherwise qualified for entrance, an examination will be held regularly in the School House, at Berkhamsted, Herts, Eng., each year, commencing on, or about, the 12th of June. Full information regarding the exact date of the examination, fee, etc., may be obtained from Rev T. C. Fry, D.D., the School House, Berkhamsted, Herts, Eng., who has kindly undertaken to act as the Honorary Representative of the University in England.

- 2. Every candidate for examination is required to fill up an application form and return the same with the necessary fee one month before the examination. Blank forms may be obtained from the Registrar.
- 3. In order to obtain an examination at a local centre, any Headmaster or other person must, before May 1st, submit to the Registrar 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 University will be responsible for no other local expenses than the payment of the deputy-examiners.
- 4. The matriculation examination may be taken in two parts, the Preliminary Division comprising (1) English Composition and Dictation, (2) English Grammar, (3) History and Geography, and (4) Arithmetic, and a candidate who passes on any three of the four papers set in this Division, at one time,\* will be allowed to count to his credit the subjects covered thereby, and the remaining paper may be taken separately, or when he presents himself for examination in the Final Division. Those who fail in two or more papers will be required to take this part of the examination over again.
- 5. Candidates for examination in the Final Division who fail in not more than two subjects at one time\* may complete matriculation by passing in the subject or subjects in which they failed, at any matriculation examination held within the same or the following year.
- 6. The examination may also be taken as a whole (without reference to Divisions), in which case those who have obtained pass standing in at least half of the required subjects for entrance to any Faculty, at one time,\* may complete the matriculation examination by passing in the remaining sub-

<sup>\*</sup>Subjects passed at the June and September examinations of the same year will be considered as having been passed "at one time." Candidates, therefore, who have failed at the June examination and present themselves in the following September will not be required to take the subjects in which they passed in June.

ject or subjects at any examination held within the same or

the following year.

- 7. Candidates who at the September examination fail in a small part only of the whole examination may, if their general standing is sufficiently high, be allowed to enter the First Year as conditioned students. Those who are conditioned in a language must attend a special tutorial class during their first session, for which a fee of \$10 is exigible. Any student, so conditioned, who fails to attend this class with regularity, will not be allowed to present himself for examination. The standing of a conditioned student will not as a rule be granted to any who have not presented themselves for examination in September, nor to those who have not shown sufficient knowledge of the subject or subjects in which they failed to justify the examiners in making a favorable recommendation. Conditioned students can obtain full undergraduate standing by passing at a subsequent June or September matriculation examination in the subject or subjects in which they failed, and will not be permitted to enter the Second Year of their course of study until they have satisfied all matriculation requirements.
- 8. When two or more books or subjects are prescribed for one examination it is necessary to pass in each.
- 9. A candidate in order to pass must obtain at least 40 per cent. of the total number of marks allowed for each subject.
- 10. In view of the precautions taken to prevent mistakes, no request for the re-examination of a paper shall be granted except on payment of a fee of one dollar. Should the appeal from the examiner's valuation be sustained the fee will be returned.
- II. Certificates of having passed the following examinations will, if submitted to the Registrar, be accepted *pro tanto* in lieu of the matriculation examination, *i.e.*, in so far as the subjects and standard are, to the satisfaction of the Board of Matriculation examiners, the same as or equivalent to those required for the matriculation examination of this University. Candidates offering certificates which are not a full equivalent

will be required to pass the matriculation examination in such of the required subjects as are not covered thereby:—

# Province of Quebec.

The University School Preliminary Examination and the Departmental Examination of Grade I Academy.

The University School Leaving Examination.

The Examination for the Model School Diploma, under certain conditions.

### Province of Ontario.

The Junior and Senior Teachers' Certificate Examinations. Junior and Senior Matriculation Examinations.

### Province of New Brunswick.

The Examinations for Superior and Grammar School Licences.

# Province of Nova Scotia.

The Leaving Examinations, Grades XI and XII.

# Province of Prince Edward Island.

The Examination for First and Second Class Teachers' Licences.

The First and Second Year Examinations of Prince of Wales College.

### Province of British Columbia.

The Junior, Intermediate and Senior Grade Examinations

### Alberta and Saskatchewan.

The Departmental Examinations for Standards VII and VIII.

### Newfoundland.

The Intermediate and Associate Grade Examinations.

#### Great Britain.

The School and Matriculation Examinations of the Universities of Oxford, Cambridge and London, and the Leaving Examinations of the Scotch Education Department.

Applications for exemption from the matriculation examination, based upon certificates of having passed examinations other than those above mentioned, will be considered as occasion may require by the Board of Matriculation Examiners. Every such application must be accompanied by certificates and full particulars, and should be addressed to the Registrar.

II. Fees.

See page 64.

### III. Subjects of Examination.

#### FACULTY OF ARTS.

(For candidates intending to take the B.A. course.)

#### PRELIMINARY DIVISION.

(See Regulation 4, page 19.)

English Composition and Dictation. English Grammar. History and Geography. Arithmetic.

#### FINAL DIVISION.

1. English Literature.

2. Latin or Greek. One of the following:

Greek or Latin (the one not already chosen), French, German. 4, Algebra, Part I.

5. Geometry, Part I.6. One of the following: Physiography, Botany, Chemistry, Physics, a Language not already chosen.

(For candidates intending to take the B.Sc. course in Arts.) PRELIMINARY DIVISION.

As above.

#### FINAL DIVISION.

- English Literature.
- 2. French. 3. German.

- Algebra, Part I.
   Geometry, Part I.
   One of the following:

Physiography, Botany, Chemistry, Physics, Latin, Greek.

Candidates who intend ultimately to proceed to the study of Medicine are reminded that for Medical Registration it is necessary to take Latin.

(For candidates entering on the course for the Diploma of Commerce.)

One of the following examinations:—

- The ordinary Matriculation Examination for the B.A. Course.
- The ordinary Matriculation Examination for the B.Sc. Course.
- (3) An examination consisting of (a) the Preliminary subjects of the present Matriculation Examination and (b) the following Final subjects, viz:

English Literature. French, including oral examination (pass standard 50 per cent.) Algebra, Part I. Geometry, Part I. Book-Keeping.
One of the following, viz: Physiography, Botany, Chemistry, Physics.

Holders of Model School diplomas who are certified by the Head of the School of Education of Macdonald College to have taken 75 per cent. of the total marks at their final examinations, with not less than 50 per cent. of the marks in (1) Mathematics, (2) French, and (3) Latin or Greek, respectively, will be admitted without further examination as undergraduates of the First Year in Arts.

Nine Exhibitions, ranging in value from \$100 to \$200 each, will be awarded on the result of the Matriculation Examination for entrance to the Faculty of Arts on the subjects of the Final Division, in June, 1908, and also in June, 1909; and five, each of the value of \$150, and three Scholarships of the annual value of \$150 each, tenable for two years, will be awarded on the result of an examination on special work. Full particulars are give. on pages 44-46.

In addition to the above, an Exhibition of the value of \$50.00, tenable for one year, will be awarded in 1908 to the candidate who takes the highest standing in the Matriculation Examination for entrance on the course for the Diploma of Commerce.

### FACULTY OF APPLIED SCIENCE.

(For all courses leading to the Degree of B.Sc. in Applied Science.)

#### PRELIMINARY DIVISION.

(See Regulation 4, page 19.)

English Composition and Dictation. English Grammar. History and Geography. Arithmetic.

#### FINAL DIVISION.

- 1. English Literature.
- 2. One of the following: French, German, Latin, Greek.
- 3. Algebra, Parts I and II.
- 4. Geometry, Parts I and II.
- 5. Trigonometry.
- One of the following:
   Physiography, Botany, Chemistry, Physics, a Language not already chosen.

# (For the course leading to the Degree of B. Arch.)

### PRELIMINARY DIVISION.

As above.

#### FINAL DIVISION.

1. English Literature.

2. French.

 One of the following: Greek, Latin, German, Physiography, Botany, Chemistry, Physics.

Algebra, Part I.
 Geometry, Part I.

6. Freehand and Geometrical Drawing.

French-speaking candidates for matriculation in this Faculty will be allowed to take examinations in French equivalent to those required in English. (For particulars, see page 31.)

The Canadian Railway Club has established a Scholarship, to be competed for by sons of members of the club, and to be awarded to that one who obtains the highest standing at the Matriculation Examination for entrance on the B.Sc. course in Applied Science.

#### FACULTY OF MEDICINE.

#### PRELIMINARY DIVISION.

(See Regulation 4, page 19.)

English Composition and Dictation. English Grammar. History and Geography. Arithmetic.

#### FINAL DIVISION.

1. English Literature.

2. Latin.

Algebra, Part I.
 Geometry, Part I.

5. Chemistry.6. Physics.

7. One of the following: Greek, French, German.

In addition to the certificates mentioned on page 21, the following are accepted in lieu of the Matriculation Examination for entrance in Medicine, provided they cover Latin:

The Degree of Bachelor of Arts obtained from any recognized university.

A certificate of having passed the examination of a Provincial Medical Council.

In the case of candidates from the United States, a certificate of having passed a State or University examination fully equivalent to the Matriculation Examination required for entrance in this University.

The examination requirements for those who intend to practise Medicine in any of the Provinces of Canada will be learned by corresponding with the Registrars of the several Provincial Medical Councils. (For names and addresses see page 275).

FACULTY OF LAW.

PRELIMINARY DIVISION.

(See Regulation 4, page 19.)

English Composition and Dictation. English Grammar. History and Geography. Arithmetic.

#### FINAL DIVISION.

- 1. English Literature.
- 2. Latin.
- 3. French.

- Algebra, Part I.
   Geometry, Part I.
   One of the following:

Physiography, Botany, Chemistry, Physics, Greek, German.

Candidates must reach a high standard in Latin and French. In addition to those who qualify on the certificates mentioned on page 21, Bachelors of Arts, Science, or Letters of any Canadian or British University (see R.S.Q., 3503a) are admitted without examination.

No candidate domiciled in the Province of Quebec shall be admitted as an undergraduate in the Faculty of Law who shall not, in addition to other matriculation requirements, possess an adequate knowledge of French. Every candidate for admission as an undergraduate, whether exempt from the matriculation examination or not, shall be specially examined in this subject by an examiner appointed by Corporation, on the recommendation of the Matriculation Board, before being allowed to enter and shall not be considered to possess an adequate knowledge unless he can speak the language with fair fluency and can translate with ease a passage of English into French.

Candidates who intend to practise Law or to be admitted to the notarial profession in the Province of Quebec are referred to the Statutory requirements, as shown on page 270 under Faculty of Law. If they are not graduates they should pass the examination for admission to study required by the Council of the Bar or by the Board of Notaries, as the case may be, before seeking to matriculate. In that case they will be matriculated without examination.

### FACULTY OF AGRICULTURE.

(For the course leading to a Bachelor's Degree).

A matriculation certificate for entrance to any other Faculty of the University will be accepted.

# (For the one and two-year courses.)

- 1. Reading, Writing, Dictation.
- 2. English Grammar.
- 3. Arithmetic.
- 4. Geography (outlines of general Geography and the Geography of Canada.)

#### DEPARTMENT OF MUSIC.

(For the Course leading to the Degree of Bachelor of Music)

English (Dictation, Composition, Grammar and Literature.)
British History.

Elementary Mathematics. French or German or Italian.

Rudiments of Music (musical intervals, scales, clefs, time signatures, construction of chords, elementary harmony to chord of dominant seventh.)

### IV. Requirements in each Subject.

#### PRELIMINARY DIVISION.

### English Composition and Dictation.

FOR COMPOSITION.—Candidates will write a short essay on a subject to be given at the time of the examination,

### English Grammar.

Main facts in connection with the history of the language; Etymology and Syntax. A good knowledge of Parsing and Analysis is essential. West's English Grammar for Beginners is recommended as a text-book.

# History and Geography.

Candidates will be required to show a somewhat intimate acquaintance with the history of England, from 1485 to the present time. 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.

The Geography required will be that relating to the History prescribed.

### Arithmetic.

All the ordinary rules, including Square Root, and a knowledge of the Metric System.

#### FINAL DIVISION.

# English Composition and Literature.

COMPOSITION.—As in Sykes's Elementary Composition, with an essay on some subject connected with the works prescribed in Literature. Frequent practice in composition is essential.

LITERATURE.—1908 and 1909.—Any two of the following: Shakespere's Merchant of Venice; Nineteenth Century Prose (ed. Cunliffe), pp. 1-126, with notes (Copp, Clark Co.); Poems of the Romantic Revival (Copp, Clark Co.), pages 1 to 82 with notes; Tennyson's Select Poems (editor Alexander, Copp, Clark Co.).

An alternative paper will be set on the work specified in English for the Junior Matriculation examination of the Province of Ontario.

### Greek.

For 1908 and 1909.—

Texts.—Xenophon, Anabasis, Book I, Chaps. 1 to 8, or Farnell's "Tales from Herodotus" (Macmillan's Elementary Classics), Chaps. VIII to XVI.

Grammar.—Knowledge of Grammar will be tested by translation and composition, and by grammatical questions based on the specified texts.

TRANSLATION AT SIGHT from Greek into English.

Composition.—Translation into Greek of detached English sentences and easy narrative based on the prescribed texts.

Two papers will be set:—(1) Translation at Sight and Composition; (2) Translation from and grammatical and other questions based on the prescribed texts. No candidate will be allowed to pass who fails on paper (1).

Alternative questions will be set on the work prescribed in Greek for the Junior Matriculation examination of the Province of Ontario, if this differs from that specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

### Latin.

For 1908 and 1909.—

TEXTS.—Cæsar, De Bello Gallico, Book IV, Chap. 20 to the end, and Book V; Ovid, Stories from the Metamorphoses (as in Gleason's "A Term of Ovid," American Book Company), lines I to 670.

GRAMMAR.—Knowledge of Grammar will be tested by translation and composition, and by grammatical questions based on the specified texts.

TRANSLATION AT SIGHT from Latin into English.

Composition.—Translation into Latin of detached English sentences and easy narrative based on the prescribed texts.

Two papers will be set:—(1) Translation at Sight and Composition, (2) Translation from and grammatical and other questions based on the prescribed texts. No candidate will be allowed to pass who fails on paper (1).

Note.—The Roman method of pronouncing Latin is re-

An alternative paper will be set on the Latin texts prescribed for the Junior Matriculation examination of the Province of Ontario, if these differ from those specified above.

At the September examination other texts in Latin equivalent to those specified may be accepted, if application be made to the Registrar at least a month before the day of the examination.

#### French.

GRAMMAR.—A thorough knowledge of French Accidence and of those points of Syntax which are of more frequent occurrence in an ordinary easy style.

Translation at Sight into English of a French passage of moderate difficulty.

Translation at Sight into French of detached English sentences and an easy English passage. Material for such translation is selected with a view to testing the candidate's general knowledge of French Grammar. Candidates are required to pass in English-French translation as well as in the paper as a whole.

Books recommended.:—Bertenshaw's French Grammar (Longmans), and Cameron's Elements of French Prose Composition (Holt & Co.).

French-speaking candidates for matriculation in the Faculty of Applied Science will, if they offer French in place of English (see page 25), be examined in the following:—

French Composition, Dictation, Grammar (Larousse, Grammaire Supérieure).

FRENCH LITERATURE:—Corneille, Le Cid; Racine, Andromaque.)

French History:—(A. Rambaud, Histoire de la Civilisation Française.)

(For Special Regulation re Matriculation in Law see page 27)

#### German.

GRAMMAR.—A thorough knowledge of German Accidence and of the syntax of the topics treated in Lessons 46, 47, 57, 58, 59 and 60 of the Joynes-Meissner Grammar, and as presented in the Joynes-Meissner, Van der Smissen, or any other German Grammar of equally good standing.

Translation at Sight into English of a German passage of moderate difficulty.

Translation into German of detached English sentences and of an easy English passage. Material for such translation is selected with a view to exemplifying the points of grammar included within the above limits.

TEXTS.—(Translation and grammatical study):-

For 1908 and 1909.—Auf der Sonnenseite (Heath & Co.); Storm, Immensee (Heath & Co.).

For 1910.—Volkmann, Kleine Geschicten (Heath & Co.); Stille Wasser, ed. Bernhardt (Heath & Co.). It is recommended that candidates should read the prescribed texts in the above order beginning in Volkmann's Kleine Geschicten with Himmelsschlüssel and Siebenmeilenstiefel.

The Ontario Junior Matriculation requirements in German will be accepted in place of the texts specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

### Algebra, Part I.

Elementary rules, Involution, Evolution, Fractions, Indices, Surds, Simple and Quadratic Equations of one or more unknown quantities; as in Hall and Knight's Elementary Algebra to the end of Surds (omitting portions marked with an asterisk), or as in similar text-books.

# Algebra, Part II.

The three Progressions, Ratio, Proportion, Variation, Permutations and Combinations, Binomial Theorem, Logarithms, Theory of Quadratic Equations, as in the remainder of Hall and Knight's Elementary Algebra (omitting Chaps. 40 to 43 inclusive), or as in similar text-books.

### Geometry, Part I.

Euclid's Elements, Books I, II, III, with easy deductions; or an equivalent.\*

An alternative paper will be set on the Ontario Junior Matriculation requirements in this subject.

<sup>\*</sup> The text-book at present in use in McGill University, and which is also authorised for use in the schools of the Province of Quebec, is Hall and Stevens' Euclid (Macmillan & Co.) Teachers will find Hall and Stevens' School Geometry a useful adjunct as far as regards practical applications.

# Geometry, Part II.

Euclid's Elements, Books IV and VI, with definitions of Book V, and easy deductions; or an equivalent.\*

# Trigonometry.

Measurement of angles, trigonometrical ratios or functions of one angle, of two angles and of a multiple angle; as in Lock's Elementary Trigonometry, Chaps. I. to XII, Hall and Knight's Trigonometry, Chaps. I to XII, inclusive, omitting Chap. V; or as in similar text-books.

# Physiography.

The elements of the science, as in Davis's Elementary Physical Geography, or any other text-book covering the same ground.

# Botany.

For 1909.—Text Book of Botany by Penhallow and Derick (W. J. Gage Co.)—the whole.

# 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 weight, etc. The ground is simply and effectively covered by Remsen's "Elements of Chemistry," pp. 1 to 165 (Macmillan's Edition).

# 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.

Text-book recommended—Gage's Introduction to Physical Science, 1902 edition (Ginn & Co.), Chaps. I to IV., inclusive).

<sup>\*</sup> The text-book at present in use in McGill University and which is also authorized for use in the schools of the Province of Quebec, is Hall and Stevens' Euclid (Macmillan & Co.) Teachers will find Hall & Stevens' School Geometry a useful adjunct as far as regards practical applications.

### V.—Dates of the Examinations.

The examinations in 1908 will commence on Monday, June 15th and on Thursday, September 10th. Special arrangements may be made for the examination of candidates who are prevented by severe illness or domestic affliction from presenting themselves on the dates fixed.

For the September Time Table, see first part of Calendar.

### VI.—Admission to Advanced Standing.

### I.—Entrance to Second Year.

Admission to the Second Year in Arts is open, as a rule, only to undergraduates who have passed the First Year Sessional Examination in regular course, but in special cases, to be dealt with by the Faculty, candidates may be admitted directly to the Second Year without having passed through the curriculum of the First Year.

### II.—Admission Ad Eundem Statum.

Any student of another university applying for exemption from any subject or subjects which he has already studied is required to submit with his application a complete statement of the course he has followed, together with a certificate of the standing gained therein.

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

Undergraduates in Arts of the Second and Third Years, or graduates in Arts of any university, entering the Faculty of Applied Science, may, at the discretion of the Faculty, be exempted from such lectures as they have previously attended as students in Arts.

# REGISTRATION AND ATTENDANCE.

I. Candidates entering on a course of study in any Faculty, whether as undergraduates, conditioned students or partial students, are required to attend at the office of the University Registrar some time during the week preceding the opening day of the session, for the purpose of filling out in duplicate the usual form of registration, and of signing the following declaration in the Matricula or Register:—

"I hereby accept and submit myself to the statutes, rules, regulations and ordinances of McGill University, and of the Faculty or Faculties in which I am registered, and to any amendments thereto which may be made while I am a student of the University, and I promise to observe the same."

- 2. On the opening day of the session, or on one of the three preceding days, all students who have not registered under Regulation I, shall register in such place or places as may be announced by circular and by notices posted in the several buildings. (At the opening of the session 1908-1909 the registration of all students will be attended to at the Registrar's Office.)
- 3. After registering the student will be given a registration ticket, on presentation of which to the different professors and lecturers whose classes he proposes to attend, his name will be entered on the class register. It will not be entered, nor will he be permitted to attend lectures, on any other condition.

In the case of students whose standing cannot be determined at the time of registration, special tickets will be issued, which will give them the right of admission to classes until such time as their status is ascertained.

4. Students are required to attend at least seven-eighths of the total number of lectures in any one course. Those whose absences exceed one-eighth of the total number of lectures in a course shall not be permitted to come up for the examination in that course. Each absence from lectures during the first three days of the session, or of the second term thereof, shall count as two.

Excuses on the ground of illness or domestic affliction shall be dealt with by the Deans of the respective Faculties.

5. A record shall be kept by each Professor or Lecturer, in which the presence or absence of students shall be carefully noted. This record shall be submitted to the Faculty when required.

6. Credit for attendance on any lecture or class may be refused on the grounds of lateness, inattention, neglect of study, or disorderly conduct in the class room or laboratory. In the case last mentioned, the student may, at the discretion of the Professor, be required to leave the room. Persistence in any of the above offences against discipline shall, after admonition by the Professor, be reported to the Dean of the Faculty concerned. 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.

7. Punctual attendance on all classes is required of each student.

The following special regulations with regard to marking the attendance of students have been adopted by the Faculties of Arts and Applied Science:—

### I.—By the Faculty of Arts.

Lectures shall commence at five minutes after the hour, on the conclusion of the roll-call, and students failing to answer to their names shall be marked "absent," unless they report themselves at the close of the lecture, in which case they shall be marked "late," and given such credit for attendance as the Faculty may deem advisable. Lectures shall end at five minutes before the hour.

# II .- By the Faculty of Applied Science.

Lectures will commence at five minutes after the hour, on the conclusion of the roll-call. After the commencement of a lecture students are not allowed to enter, except with the permission of the Professor. If permitted to enter, they will, on reporting themselves at the close of the lecture, be marked "late," and given such credit for attendance as the Faculty may deem advisable. Lectures end at five minutes before the hour.

# BOARD AND RESIDENCE.

No college residences have as yet been erected for men students, but dormitory accommodation for about 60 is provided in Strathcona Hall, the new McGill Y.M.C.A building, which was erected in 1905 by a committee of the Association. Full particulars concerning terms of residence, etc., may be obtained from the Secretary of the Association, 348 Sherbrooke St. West, Montreal, who will also make arrangements to have students who are strangers to the City met on arrival and helped to secure lodgings, if due notice is sent of the station and time at which they will arrive.

The erection of suitable University residential halls for men is contemplated in the near future.

Women students may board and reside either in private houses or in the Royal Victoria College, which provides, in addition to separate lecture rooms, residential accommodation for the women students of the University.

The expense of board and residence for the Session in the Royal Victoria College varies from \$290 to \$450, according to the position of the rooms. Students who do not remain over for the summer classes receive a deduction of \$50 from the regular charge. Further particulars will be furnished by the Warden.

Good board and lodging can be obtained in private houses in the vicinity of the University buildings at a cost of from \$18 and upwards per month; or, separately, board at \$12 to \$18 per month, room at \$5 to \$12 per month.

A list of suitable boarding and lodging houses, the sanitary conditions of which are required to be properly certified, is prepared annually, and may be obtained upon application to the Registrar of the University.

Excellent board is furnished in the McGill Union at a reasonable rate—fifteen dollars per month. The dining room, which is a special feature of the Union, will accommodate over 120 students at a time. There is also a lunch counter where meals are served à la carte. A description of the building and a statement of its purposes will be found on page 316.

### RAILWAY RATES.

### (1). Rates for Summer Vacations.

After April 15th, and up to June 30th, single fare return tickets will be issued to students of McGill University, on presentation of standard vacation certificates signed by the Principal or Registrar of the University, between Montreal and any station on the Intercolonial Railway in Quebec, and to any point in the Maritime Provinces, which is reached by either the Intercolonial or the Canadian Pacific Railways. These tickets will be good for return up to September 21st.

### (2) Special Rates for Students from the West.

Between any station in Canada on the Canadian Pacific Railway and Montreal, where the one way regular first-class rate is \$20.00, or more, one way continuous passage tickets will be issued at half the regular first-class one way fare, minimum rate to be charged \$20.00. For example, if the first-class one way rate is \$50.00, \$25.00 will be charged, but if the one way rate is less than \$40.00, \$20.00 will be collected. In order to obtain this rate, students going to attend the University for the first time will be required to present a certificate to that effect from parent, guardian clergyman or magistrate, but subsequently going or returning the certificates must be signed by the Principal or Registrar of the University.

# EXHIBITIONS, SCHOLARSHIPS AND PRIZES.

### I. SCHOLARSHIPS-GENERAL.

I. The Rhodes Scholarship.—This scholarship is of the annual value of £300 sterling and is tenable at the University of Oxford for three years. The scholar must be a British subject, must be over 19 and under 25 years of age, and must have reached at least the end of his Sophomore or Second 1 ear in the University.

Rhodes Scholarships have been awarded as follows:—1904, Herbert J. Rose, B.A., and John G. Archibald, B.A.; 1905, Talbot M. Papineau, B.A.; 1906, Alexander R. Mc-Leod, B.A.; 1908, Frank E. Hawkins, B.A.

The next election of a Rhodes Scholar by McGill University will be in 1911.

2. Science Scholarships granted by Her Majesty's Commissioners for the Exhibition of 1851.—These scholarships, of the value of £150 sterling 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."

It is open to students of not less than three years' standing who have shown evidence of capacity for original research, and is tenable at any university or any other institution approved by the Commission.

A nomination to one of these Scholarships may be granted to McGill University in 1911, in which event appli-

cations should be sent in to the Registrar on or before March 1st.

This Scholarship 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; McClung, R. K., 1901; Cooke, H. Lester, 1903; Johnson, F. M. G., 1905; Simpson, J. C., 1907.

3. THE DR. T. STERRY HUNT RESEARCH SCHOLARSHIP IN CHEMISTRY.—It is proposed to offer this scholarship each year to graduate students in the Faculties of Arts and Applied Science.

# II. EXHIBITIONS AND SCHOLARSHIPS IN ARTS.

#### GENERAL REGULATIONS.

I. No student can hold more than one Exhibition or Scholarship at the same time.

2. 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.

3. 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.

4. A successful candidate must, in order to retain his Scholarship or Exhibition, proceed regularly with his college course

to the satisfaction of the Faculty.

5. 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.

### EXHIBITIONS AVAILABLE IN ARTS.

The Jane Redpath Exhibition, founded by the late Mrs. Redpath, of Terrace Bank, Montreal:—value, about \$90, open to both men and women.

One Sir William Dawson Exhibition, given by the New York Graduates' Society —value \$62.

Ten Macdonald Scholarships and Exhibitions, founded by Sir W. C. Macdonald, Montreal:—value \$125 to \$150 each.

The Charles Alexander Scholarship (for men students) founded by the late Charles Alexander, Esq., Montreal, for the encouragement of the study of Classics and other subjects:—value \$90.

The Major H. Mills Scholarship, founded by bequest of the late Major Hiram Mills:—value \$100.

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.

The Mackenzie Scholarship for Economics and Political Science, founded in memory of the late Hon. Alexander Mackenzie:—value \$150.

The P. S. Ross Exhibitions, for competition in the Commercial Course, founded by Mr. P. D. Ross, in memory of his late father, P. S. Ross: two of the value of \$50 each.

One of The Rev. Samuel Massey Exhibitions, founded by Mr. George Massey, in memory of his late father, Rev. Samuel Massey:—value \$62.50.

### FIRST YEAR EXHIBITIONS IN ARTS.

The following Exhibitions and Scholarships\* will be offered for competition in June, 1909, to candidates for admission to the First Year:—

# (1) Matriculation Exhibitions.

These Exhibitions will be awarded for general proficiency on the results of the matriculation examination, in the subjects of the Final Division. (For which see page 22).

Seven, of the value of \$100 each—five for those intending to take the B.A. Course and two for candidates who propose to enter on the B.Sc. Course, in Arts—are open to both men and women; and two are open to women only and conditional on residence in the Royal Victoria College, one of \$200 and one of \$100.

<sup>\*</sup> A Scholarship is ordinarily tenable for two years; an Exhibition for one year.

For the Matriculation Exhibitions the value attached to each subject is as follows:—

Language subjects	100	Marks.
Mathematical subjects	100	"
English	75	"
Science subjects	50	**

An Exhibition of the value of \$50.00, tenable for one year—and known as the P. S. Ross Exhibition—will be awarded in 1908, and also in 1909, to the candidate who stands highest in the Matriculation Examination for entrance on the course for the Diploma of Commerce. For subjects of examination see page 23.

### (2) Advanced Exhibitions.

These Exhibitions and Scholarships will be awarded on the result of an examination on any three of the following subjects; provided, however, that no award will be made to a candidate who has not obtained first-class standing at the University Matriculation Examination or at an examination which is accepted as its equivalent: English, Latin, Greek, French, German, Mathematics. For scope of examination in each subject see below.

Five Exhibitions, of the value of \$150 each are offered, and three Scholarships, tenable for two years, of the value of \$150 each per year.

The Scholarships shall be awarded to the three candidates (otherwise qualified) who take the highest standing in the examination, and the tenure of the Scholarship for the second year shall be contingent on the holder obtaining a first class standing in the sessional examinations of the First Year, or, in the case of those who obtain first class in an Advance1 Course, a standing not lower than second class in any subject.

One or more additional Advanced Exhibitions may be awarded should the number of candidates who attain a sufficiently high standard for Scholarships be less than three.

Every candidate for a First Year Exhibition or Scholar-ship shall, on application for examination, sign a declaration to the effect that he intends to proceed to a Degree in Arts in this University. Blank forms of application, to be obtained from the Registrar, must be filled out and returned before the first of May preceding the examination.

The subjects for the Advanced Exhibitions are of equal value.

# Requirements in each subject.

The details of the work required in the subjects for Advanced Exhibitions (any three of which may be chosen, as stated above) are as follows:—

# English.

LANGUAGE, 1909 and 1910.—The Making of English, by Henry Bradley (Macmillan).

LITERATURE, 1909 and 1910.—Poems of the Romantic Revival (Copp, Clark Co.), pp. 83-200, with Introduction and Notes; Macaulay, Essays on Byron, Warren Hastings, Clive.

Composition.—The candidate will be required to write an essay on some subject connected with the examination.

# Latin.

Grammar; Translation at Sight; Prose Composition.
Translation from and questions on the following texts:
1909.—Virgil, Aeneid, Book II; Cicero, in Catilinam I and II.

1910.—Horace, Odes, Book I; Livy, Book II, chaps I to 33.

### Greek.

Grammar; Translation at Sight; Prose Composition. Translation from and questions on the following texts: 1909.—Homer, Iliad VI; Lucian, Charon. 1910.—Homer, Odyssey IX; Thucydides I, chaps. 89 to 118.

#### French.

(a) Grammar, including Syntax; (b) translation at sight from French into English; (c) translation at sight of easy English prose passages into French; (d) translation from the following texts:—

1909.—Augier, Le Gendre de M. Poirier (Heath & Co.); DeVigny, La Canne de Jonc (Heath & Co.); Sand, La Mare

au Diable (Ginn & Co.).

### German.

(a) Grammar.—Accidence and Syntax; (b) translation at sight from German into English; (c) translation at sight into German of an easy passage of English prose; (d) translation and grammatical study of the following texts:

1909: Fouqué, Undine (Holt); Chamisso, Peter Schle-

mihl (Holt); Keller, Kleider machen Leute (Heath).

### Mathematics.

GEOMETRY.—Euclid's Elements, Books IV and VI, with definitions of Book V, and easy deductions.\*

ALGEBRA.—The three Progressions, Ratio. Proportion, Variation, Permutations and Combinations, Binomial Theorem, Logarithms, Theory of Quadratic Equations, as in Hall & Knight's Elementary Algebra (omitting Chapters 40-43 inclusive), or as in similar text-books.

TRIGONOMETRY.—Measurements of angles, trigonometrical ratios or functions of one angle, of two angles, and of a multiple angle, as in Lock's Elementary Trigonometry, Chapters I to XII.; Hall & Knight's Trigonometry, Chaps. I. to XII inclusive, omitting Chap. V.; or as in similar text books.

In addition to the above First Year Exhibitions, three bursaries, of the value of \$60 each, are offered annually in the Faculty of Arts to the three teachers-in-training of the

<sup>\*</sup> The text-book at present in use in McGill University and which is also authorized for use in the schools of the Province of Quebec, is Hall & Stevens' Euclid (Macmillan & Co.) Teachers will find Hall & Stevens' School Geometry a useful adjunct as far as regards practical applications.

School of Education of Macdonald College, (1) who have satisfied the requirements for entrance to this Faculty, and (2) who, of all those applying for these bursaries, stand highest in their final examination for the Model School Diploma.

### SECOND YEAR EXHIBITIONS IN ARTS.\*

Six Exhibitions, ranging in value from \$100 to \$150 each, will be offered for competition to students entering the Second Year, in September, 1908:—

The subjects of examination are divided into two groups as follows:—

Group I.—Greek, Latin, French, German, English. Group II.—Mathematics, Physics.

Candidates are required to offer two major subjects and one minor subject. The two major subjects must be selected from the same group, the minor subject from either group, the examination in the major subject being more extensive than that in the same subject presented as a minor subject. Two Exhibitions of \$150 each and two of \$100 each are offered to candidates taking their major subjects from Group I, and one Exhibition of \$150 and one of \$100 to candidates taking their major subjects from Group II.

The above Exhibitions are open to all undergraduates in Arts, whether they are taking the B.A. or the B.Sc. course.

In 1909 an Exhibition, of the value of \$50.00, to be known as the P. S. Ross Exhibition, will be awarded to the student entering the Second Year of the Commercial Course who takes the highest standing at the sessional examinations of the First Year.

<sup>\*</sup> Second Year Exhibitions are open 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 Second Year Exhibition examination will, for candidates who have not previously entered the University, be regarded as a matriculation examination, pro tanto.

## Requirements in each Subject.

Greek.

(As a Major Subject.)

For 1908 and 1909:-

I. (a) Plato, Apologia (Adam, Pitt Press).

(b) Euripides, Hecuba (Hadley, Pitt Press).

II. Composition and Translation at Sight.

III. History:—Morey's "Outlines of Greek History with a Survey of Ancient Oriental Nations" (American Book Company).

(As a Minor Subject.)

The same as above, omitting I (b) and III.

Latin.

(As a Major Subject).

For 1908 and 1909:-

- I. (a) Cicero, pro Roscio Amerino (Stock, Clarendon Press).
- (b) Virgil, Bucolica (Sidgwick, Pitt Press), omitting the 2nd and 3rd Eclogues.

II. Composition and Translation at Sight.

III. Roman History:—From the First Punic War to the death of Sulla.

(As a Minor Subject).

The same as above, omitting I (b) and III.

#### French.

(As a Major Subject).

(a) Grammar; (b) translation at sight of an English passage into French; (c) French essay on a prescribed subject; (d) translation of passages taken from the prescribed texts; (e); a critical study of the following texts, tested by questions in the French language to be answered in French:

For 1908 and 1909.—Corneille, Cinna (Holt); Molière, Le Malade Imaginaire (Macmillan); Daudet, Tartarin de Tarascon (American Book Co.); Thiers, Expédition de Bonaparte en Egypt (Holt); Ohnet, La Fille du Député (Holt).

## (As a Minor Subject).

The same as above, omitting Cinna and Tartarin de Tarascon.

### German.

## (As a Major Subject).

(a) Grammar; (b) translation at sight from German into English, and from English into German; (c) the life of Schiller and a critical study and translation of the following texts:—

For 1908 and 1909.—Schiller, Die Piccolomini (Pitt Press) and Der Geisterseher (Heath); Kleist, Michael Kohlhaas (Holt); Fulda, Talisman (Heath).

## (As a Minor Subject).

The same as above, omitting Die Piccolomini and Der Geisterseher.

### English.

## (As a Major Subject).

Literature.—Shakespere, Julius Cæsar (ed. Deighton, Macmillan); Milton, Comus (ed. Bell, Macmillan); Johnson, Lives of Dryden and Pope (ed. Milnes, Clarendon Press Series).

History.—Church, Middle Ages.

### (As a Minor Subject).

The same as above, omitting Comus and Lives of Dryden and Pope.

## Mathematics.

## (As a Major Subject).

Plane Geometry.—Ordinary and advanced section courses of the First Year.

Algebra.—Selected course from Chaps. I-XXXII of Hall and Knight's Higher Algebra.

Theory of Equations.—Selected course from Burnside and Panton.

Plane Trigonometry.—As in the ordinary and advanced courses of the First Year.

## (As a Minor Subject).

The Mathematics of the First Year ordinary course.

Physics.

As in Carhart and Chute.

### THIRD YEAR SCHOLARSHIPS IN ARTS. \*

The following six Scholarships, of the annual value of \$150 each, will be open for competition to students entering the Third Year in September, 1908:—

One for English and another language.

One for Latin or Greek and another language † (English excepted).

One for French and German and another language † (English excepted).

Two for Mathematics and Physics.

One in Economics.

The following three Scholarships (value \$150 each) are tenable for one year only. A Bursary of \$25 will be awarded to that one of the holders of these three Scholar-

<sup>\*</sup> Third Year Scholarships are open to students who have passed the Second Year sessional 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. Double course students (Arts and Applied Science or Arts and Medicine) are not eligible for these Scholarships.

† The language not chosen in the first instance may be taken as the second language.

ships who is considered most deserving on entrance into the Fourth Year.

One for Philosophy.

One for Chemistry and Physics.

One for Biology.

In the event of no candidate of sufficient merit presenting himself, the scholarship assigned to any group of subjects may, at the discretion of the Faculty, be awarded in another group, whether a scholarship has been already assigned to that group or not.

Of the two Third Year Scholarships assigned to Mathematics and Physics, one is open to women only, the other to men only. Should, however, no candidate be eligible for the scholarship open to men only, it may be awarded to a woman.

In the award of Third Year Scholarships, the Second Year standing of candidates, in the subjects selected, will be taken into account.

## Mackensie Scholarship;--

The holder of the scholarship in Economics will be required to continue the study of Economics in his Third and Fourth years, taking not less work in that subject than the following:—The ordinary course in Elements of Economics, and one of the courses following this in the announcement of the Department of Economics and Political Science (see page 150).

## Requirements in each Subject.

I Greek.

Prose Composition; Translation at Sight.

Study of the following texts:—Andocides, de Mysteriis (Hickie, Macmillan): Sophocles, Trachiniæ.

Greek History, to 404 B.C. Book recommended, Bury, History of Greece (Macmillan).

#### Latin.

Prose Composition; Translation at Sight.

Study of the following texts:—Virgil, Æneid I, II and VII; Quintilian X (Peterson, Clarendon Press), Chapters 1 and 2; Terence, Phormio.

Roman History, 133 to 31 B.C. Book recommended, How and Leigh, History of Rome (Longman's).

### English and History.

Literature. Shakspere, Tempest, ed. Deighton (Macmillan); Milton, Paradise Lost, Books I and II, ed. Macmillan (Macmillan); Burke, On Conciliation with America, ed. Cook, (Longmans); Arnold, Essays in Criticism, Second Series (Macmillan's Colonial Library). History.—Robinson, Introduction to the History of Western Europe (Ginn & Co.). Composition.—The candidate will be required to write an essay on some subject connected with the literature or history prescribed. High marks will be given for this subject.

#### Hebrew.

Deuteronomy, Chaps. I-VII (Driver's Deuteronomy in International Commentary Series); also the record of the Call of the Prophets Isaiah, Jeremiah and Ezekiel, *i.e.*, Is.: VI; Jer.: I, and Ezek.: I. Papers will also be set on easy prose composition, pointing, sight translation and miscellaneous questions.

#### French.

(a) French essay; (b) translation at sight from French into English and from English into French; (c) questions on the subject matter of the following texts, and the lives of their authors.

For 1908 and 1909.—Molière, Le Médecin malgré lui (Heath); Racine, Phèdre (Heath); Hugo, Quatre-vingt-treize (Ginn) and Les Misérables (Heath); Taine, Intro-

duction à l'Histoire de la Littérature Anglaise (Heath); Rostand, Cyrano de Bergerac (Holt).

The entire examination will be held in the French lan-

#### German.

(a) German essay; (b) translation at sight from German into English and from English into German; (c) translation from the prescribed texts; (d) questions on the subject matter of the following texts, the lives of their authors and the periods they represent:—

For 1908 and 1909. — Goethe, Dichtung und Wahrheit (Heath); Schiller, Das Lied von der Glocke (Holt) and Wallenstein's Lager (Holt); Eichendorff, Aus dem Leben eines Taugenichts (Holt); Heine, Prose Selections (Macmillan); Immermann, Der Oberhof (Pitt Press).

### Mathematics and Physics.

### Mathematics.

Differential and Integral Calculus.—Lamb's Infinitesimal Calculus and Chandler's Calculus.

Analytic Geometry.—C. Smith's Conic Sections.

Higher Trigonometry.—Lock's Higher Trigonometry.

Spherical Trigonometry.—Candidates are advised to take the Second Year special course in this subject.

Algebra.—Determinants as in Burnside and Panton's Theory of Equations.

## Physics.

Electricity and Magnetism.—S. P. Thompson.

## Chemistry and Physics.

## Chemistry.

Principles of Chemistry, Mendeléef. Subject of Essay.—The Basis of the Periodic Law.

## Physics.

Electricity and Magnetism.—S. P. Thompson.

### Philosophy.

Mellone, Text-book of Logic, chapters 1-9; Mill, System of Logic, Bk. II, chap 3, and Book III, chaps. 1-8, 10-12 and 21; James, Psychology, Briefer Course (the whole, except chap. 7); Stout, Manual of Psychology (second edition), Bk. II; Descartes, Discourse on Method (French edition, Hachette et Cie.; English edition, Open Court Philosophical Classics, No. 38, Chicago).

Biology.

Animal Biology.

The Origin of Species, by Charles Darwin.

Plant Biology.

Cross and Self Fertilization in the Vegetable Kingdom, by Charles Darwin.

#### Economics.

Hatfield, Lectures on Commerce; Dunbar, Theory and History of Banking; Schloss, Methods of Industrial Remuneration; Drage, Trade Unions; Clemson, Methods and Machinery of Business (Butterworth & Co., London).

#### III. PRIZES IN ARTS.

- r. The Neil Stewart Prize.—An annual 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 selected for the prize shall have passed an examination in (1) Hebrew Grammar, Syntax, easy composition, pointing, and miscellaneous questions: (2) Translation from Hebrew into English, both prepared and unprepared. [The Hebrew texts prescribed for the present year are as in the Ordinary Hebrew Course (page 136).

(2) Three papers will be set of three hours each:—One on Pointing and Translation (with lexical and grammatical notes); one on grammar and composition; and one on miscellaneous questions.

on grammar and composition; and one on miscellaneous questions.

(3) Credit will be given to candidates showing a knowledge of Biblical Aramaic, and Rabbinic, provided the work done on classical

Hebrew be thoroughly up to Scholarship standard. Special application should be made for a paper on these subjects.

(4) Should no candidate's work be up to the Scholarship standard the prize will be withheld, and a prize of \$30 will be offered in the following year for the same.

The 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.

- 2. Early English Text Society's Prize.—This prize, the annual gift of the Early English Text Society, will be awarded for proficiency in the subjects of the language group in the English Honour curriculum of the Third and Fourth Years.
- 3. New Shakspere Society's Prize.—This prize, the annual gift of the New Shakspere Society, open to graduates and undergraduates, will be awarded for a critical knowledge of the following plays of Shakspere:—Hamlet, Macheth, Othello, King Lear.
- 4. Charles G. Coster Memorial Prize. This prize, intended 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 for competition, by Mr. Colin H. Livingstone, B.A., to undergraduates (men and women) from the Maritime Provinces (Nova Scotia, New Brunswich and Prince Edward Island). In 1909, it will be awarded to the student from the above Provinces who, in the opinion of the Professor of English Language and Literature, has written the best essay on the aboriginal Indian tribes who inhabited the territory now embraced in these Provinces, the essay to set forth the geographical distribution of these tribes, the characteristics of their lan-· guage, worship, customs, manner of conducting war, tribal relationships with western Indian nations, social customs, history since European occupation, and present status and prospects.
- 5. Annie McIntosh Prize. The income of the sum of \$425, subscribed by the pupils and friends of the late Miss

Annie M. McIntosh, will be offered as a prize to students of the Royal Victoria College in such subject, or for such work, as the Faculty may determine.

For medals and certificates awarded in Arts, see page 60.

The names of those who have taken Honours or Certificates 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.

### IV. EXHIBITIONS AND PRIZES IN APPLIED SCIENCE.

1.-Awarded on result of special Examinations.

- 1. A British Association Exhibition of \$50.00 and prize of \$25.00 to students entering the Fourth Year, the subjects of examination being the Mathematics and Theory of Structures of the ordinary course.
- 2. 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.
- 3. 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; (c) Descriptive Geometry of the First Year.
- 4. Two prizes, each of \$10.00, presented by J. M. Mc-Carthy, Esq., B.A.Sc., to students entering the Third Year, for proficiency in Levelling and Transit Work.

Students are required to notify the Dean of their intention to compete for any of the above, at least one week before the commencement of the examination.

- 5. A Scholarship of the value of \$200 per annum, established by the Canadian Railway Club, to be awarded to the son of a member of the Club who obtains the highest standing in the matriculation examination.
  - 2. Awarded on results of Sessional Examinations or for special theses.
- I. The Allis-Chalmers Company of Chicago offer several Scholarships for excellence in work in the Mining Department. Particulars regarding these Scholarships can be obtained from the Professor of Mining.
- 2. Workshop Prize.—A prize of \$20,000, presented by Mr. C. J. Fleet, B.A., B.C.L., for bench and lathe work in the wood-working department, open to students of not more than two terms' standing in workshop practice.
- 3. A prize of \$50.00, presented by Mr. James Tighe, B.A.Sc., for research work in Hydraulics.
- 4. An exhibition offered to graduates by Mr. A. E. Childs, M.Sc., for a special research on "The flow of gas through pipes under pressure."
- 5. Summer Work. (See page 188.) The following prizes are offered for the best summer theses:—

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

To the students of the Electrical Engineering Course, a prize of \$25.

To the students of the Mining Engineering Course, a prize of \$25, presented by Geo. E. Drummond, Esq.

To the students of the Metallurgical Course, a prize of \$25, presented by Milton L. Hersey, Esq., M.A.Sc.

Four prizes, each of the value of \$25, are offered for competition to student members of the Canadian Society

of Civil Engineers, for the best papers on subjects in any department of engineering. The summer theses prepared by students of this University are available for this competition.

6. The sum of \$50.00 has been voted by the Undergraduates' Society of the Faculty of Applied Science, to be given as prizes for the best papers read before the Society during the session 1908-1909.

7. Prizes or Certificates of merit are given to such students as take the highest place in the Sessional and Degree examinations. Partial students are not eligible for prizes.

For other prizes given in connection with Medals in Applied Science, see under Medals and Prizes, page 62.

### V. EXHIBITIONS AND PRIZES IN MEDICINE.

I. One of the Sir William Dawson Exhibitions given by the New York Graduates' Society, value \$60, will be at the disposal of the Faculty of Medicine for the Session 1908-1909.

2. 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' medallist is not permitted to compete for this prize.

3. The Third Year Prize.—A prize in books awarded for the best examination, written and oral, in the branches of the Third Year.

4. The Second Year Prize.—A prize in books for the best examination in all the branches of the Second Year course.

5. The First Year Prize.—A prize in books for the best examination in all the branches of the First Year course. For the Medals awarded in this Faculty, see page 63.

#### V. EXHIBITIONS AND PRIZES IN LAW.

1. An Exhibition, of the value of \$50 per annum—to be known as the Alexander Morris Exhibition — has been founded in memory of the late Hon. Alexander Morris,

M.A., D.C.L., of Toronto, Ont. This Exhibition is to be awarded as the Faculty of Law may determine.

2. One of the two Exhibitions founded by Mr. George Massey in memory of his late father, Rev. Samuel Massey, will be at the disposal of the Faculty of Law for the Session 1908-1909. The value of this Exhibition in \$62.50.

3. Various money prizes are awarded to the students of each year who obtain the highest distinction at the examinations held at the close of the session. No prize will, however, be awarded to any student unless a sufficiently high standing is attained.

For Medals in Law, see under Medals, etc., page 63.

## MEDALS, CERTIFICATES AND HONOURS.

#### I. IN ARTS.

I. 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 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 English Language and Literature.

The Logan Gold Medal for Geology, Mineralogy and Palæontology.

The Major Hiram Mills Gold Medal for Biology.

The Governor-General's Gold Medal for Modern Languages and Literature.

The regulations for the Governor-General's Gold Medal are as follows:—

(1) The subjects for competition shall be the French and German languages and literature.

(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 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.

In addition to the above, certain medals are offered annually by the Alliance Française, at the discretion of the Department of Modern Languages.

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 it was intended.

For details of the work prescribed for the several Honour courses, see pages 96 to 102, and also pages 112 to 175.

- 2. Special Certificates will be given to those candidates for B.A. who have been placed in the First Class at the ordinary B.A. examination; have obtained three-fourths of the maximum marks in the aggregate of the courses proper to the Third and Fourth Years, are in the first class in not less than half of these courses, and have no third class. At this examination, no candidate who has taken exemptions (see pages 106 to 111) can be placed in the first class unless he has obtained first class in the examination in four of the subjects offered (each corresponding to a full course of lectures), 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 placed in the first class in not less than half the subjects, and have not more than one third class.

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

For Prizes in Arts, see page 54.

#### II. IN APPLIED SCIENCE.

1. The Governor-General's silver medal (the gift of His Excellency The Right Honourable Earl Grey) will be awarded for graduate research work.

2. A British Association medal and prize in books are open for competition to students of the graduating class in each of the ten courses, and, if the examiners so recommend, will be awarded to the student taking the highest position in the final examinations. The British Association Medals and Exhibition were founded by the British Association for the Advancement of Science, in commemoration of the meeting held in Montreal in the year 1884.

3. A Gold Medal and two Prizes of \$35 and \$15, offered by the Canadian Mining Institute, will be open for competition to students from McGill University, Toronto University and Queen's University, and will be awarded to the students presenting the best papers on some subject connected with mining, ore dressing, metallurgy, or economic geology. Preference will be given to those theses which show decided originality.

4. Honours.—On graduation, Honours will be awarded for advanced work in professional subjects.

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

For Prizes in Applied Science, see page 56.

#### III. IN LAW.

I. The Elizabeth Torrance Gold Medal is awarded to the student who obtains the highest marks in the final exam-

inations, provided that his answers are, in the estimation of the Faculty, of sufficient merit to entitle him to this distinction.

For Prizes in Law, see page 58.

#### IV. IN MEDICINE.

I. 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, 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.

- 2. The Sutherland Gold Medal, founded in 1878 by the late Mrs. Sutherland, in memory of her late husband, William Sutherland, M.D., formerly Professor of Chemistry in this Faculty, 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.
- 3. The Wood Gold Medal, founded by Mr. Casey A. Wood, M.D., is awarded to the student of the graduating class who receives the highest aggregate number of marks in the clinical branches of the Final Year.
- 4. The Woodruff Gold Medal, founded by Dr. Thomas A. Woodruff, of Chicago, is awarded to the student of the Final Year who takes the highest standing in Ophthalmology and Oto-Laryngology.

For Prizes in Medicine, see page 58.

### FEES.

#### GENERAL REGULATIONS.

I. Fees shall be paid to the Bursar on or before October 1st. The registration ticket must be shown to the Bursar, in every case, before the fee is paid. After October 1st an additional fee of \$2.00 will be exacted of all students in default.

No fees will be refunded to partial students under any circumstances whatever.

2. Immediately after October 10th the Bursar shall send to each professor and lecturer a list of the registered students who have not paid their fees, on receipt of which the professor or lecturer shall strike their names from the register of attendance, and such students cannot be readmitted to their classes except on presentation of a special ticket, signed by the Bursar, certifying to the payment of fees.

Students registering after October 10th shall pay their fees at the time of registration, failing which they become subject to the provisions of Regulation 2.

### MATRICULATION FEES.

For the first examination *	\$5.00
(For examination at a local centre where not more	
than two candidates are writing the fee will	
be determined by the Registrar, provided how-	
ever, that it shall in no case exceed \$12 for	
each candidate.)	
For a subsequent examination in one or two sub-	
jects	2.00
For a subsequent examination in three or more	
subjects	3.00
For examination of certificates, in respect of which	3
candidates are exempted from the whole of	
the matriculation examination	1.00

<sup>\*</sup> In the case of candidates who qualify on certificates, or by other examinations, in all but three subjects, or parts of subjects, or less, the fee wili be \$3.00.

FEES. 65

Candidates writing on matriculation papers, with the view of qualifying as partial students in the Faculty of Arts, shall pay a fee of \$1.00 per subject.

Matriculation fees must be sent to the University Registrar at the time of application for the examination.

Certificates will be issued to successful candidates without additional fee. Duplicate certificates will not be granted unless satisfactory proof be given of the loss or destruction of the original. The fee for a duplicate certificate is \$1.00.

### FEES IN ARTS.

(For Regulations re payment, see page 64.)

Sessional fee for undergraduates and conditioned students.....\$61.00\* (This includes fees for laboratories, library, gym-

nasium, athletics and graduation.)

Fees for Partial Students.—(First and Second Years.)— \$16 per session for one course† and \$10 for one half-course† of lectures, including the use of the Library; \$12 per session for each additional course; \$8 per session for each additional half-course. In addition there will be a fee of \$3 for Athletics.

Fees for Partial Students.—(Third and Fourth Years.)— \$22 per session for one courset and \$13 for one half-courset of lectures, including the use of the Library; \$20 per session for each additional course; \$11 per session for each additional half-course. In addition there will be a fee of \$3 for Athletics.

Partial students taking the full curriculum in any one Year pay the same fees as undergraduates in that Year.

Graduates in Arts of this University and graduates of other universities attending full courses in affiliated theolo-

<sup>\*</sup> At the request of the students themselves and by the authority of Corporation, an additional dollar will be exacted from all undergraduates and conditioned students (men) in the Faculty of Arts, for the support of the Literary and the Undergraduates' Societies of that Faculty.

† The lectures and laboratory work, if any, in one subject in any of the four college years constitute a "course," if occupying three hours per week; a "half-course if occupying less than three hours per week.

gical colleges are allowed, on payment of one-half of the usual fees, to attend all lectures in the undergraduate course, except those for which a special fee is exigible.

Fees for special courses of lectures to teachers, given after 4 p.m.

For one hour per week during the Session*	\$ 4.00
For two hours per week during the Session	7.00
For three or four hours per week during the Ses-	
sion	10.00

For more than three or four hours per week regular partial student rates will be charged.

The fee for athletics and the caution money deposit are not exacted from partial students attending only the courses of lectures included in the Teachers' Syllabus.

courses of fectures included in the feathers Synab	us.
Fees for summer classes:—	
For one class (Chemistry excepted)	8.00
For each additional class (Physics and Chemistry	
excepted)	4.00
For Physics	8.00
For Botany	10.00
(Teachers and McGill University students may	attend
this class on payment of half the above fee.)	
For Chemistry (with Laboratory Work)	\$25.00
Special fees:—	
Supplemental examination in any subject or any	

Fee for the Degree of B.A. or B.Sc. (Arts) conferred in absentia (except when the candidate has been specially exempted by the Faculty). 20

<sup>\*</sup> Two hours a week for one term is considered as the equivalent of one hour a week for the Session.

Caution Money. — Every student is required to deposit with the Bursar the sum of \$5, as caution money, to cover damage done to furniture, apparatus, books, etc. This amount, less deductions (if any), will be returned at the close of the session.

## FEES IN APPLIED SCIENCE.

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for that year.

The fees for partial students are: - \$4.00 for Library, \$3.00 for Athletics, and a fee at the rate of \$6.00 per annum for each hour of instruction per week, but the maximum fee shall in no case exceed the full undergraduate fee.

In addition to the fees specified above, every student is required to pay a fee of \$1.00 for the Undergraduates' Society in the Faculty of Applied Science, to be collected with the tuition fees at the office of the Bursar.

Caution money deposit (for all classes of students). \$ Fee for graduates taking a full undergradute

course..... 150.00 (Graduates of this Faculty will be required to pay only one-half of this amount.)

Fee for the Degree of B.Sc., conferred in absentia (except when the candidate has been specially exempted by the Faculty). ..... Fees for Summer classes (First Year).

ees for Summer classes (1 hist rear).	
Mathematics.	
For one division of the subject	8.00
For each additional part	4.00
Physics	8.00
Descriptive Geometry, Freehand Drawing and	
Lettering	25.00
Chemistry, with Laboratory Work (Second	
Year)	25.00

For supplemental examinations, the fee is \$2.00 for each examination period (morning or afternoon). It must be paid to the Bursar of the University not later than the day before the examination, and receipt for the same must be shown to the Professor in charge before the examination papers are distributed.

The fee for a special supplemental examination is \$5.00.

#### FEES IN MEDICINE.

(For Regulations re payment, see page 64.)

### FIRST YEAR.

TIRST TEAR.	
Class fees	\$125.00
Caution money (deposit)*	
Athletics	3.00
	\$138.00
SECOND YEAR.	
Class fees	\$125.00
Caution money (deposit)*	. 10.00
Athletics	3.00
	\$138.00
Hospitals (to be paid by four-year-course students	
only)	\$10.00

<sup>\*</sup> The Caution money deposit is intended to cover breakages in the different aboratories, etc. The amount of the deposit, less deductions (if any) will be returned at the close of the Session.

### THIRD YEAR.

THIRD YEAR.	
Class fees	
Athletics	. 10.00
	. 3.00
Maternity II	\$148.00
Maternity Hospital (to be paid by four-year-course	
students only)	6.00
FOURTH YEAR.	
Class fees	
Caution money (deposit)*	\$125.00
Class fees Caution money (deposit)* Hospitals	10.00
Hospitals	10.00
Maternity Hospital (half fee)	6.00
Athletics	3.00
	\$154.00
Fee for M.D. Degree (to be paid by four	
Fee for M.D. Degree (to be paid by four-year-course students only)	
students omy)	\$30.00
FIFTH VEAD	
FIFTH YEAR.	
FIFTH YEAR.  Class fees  Caution money (deposit)*	\$125.00
FIFTH YEAR.  Class fees  Caution money (deposit)*  Hospitals	\$125.00
FIFTH YEAR.  Class fees  Caution money (deposit)*  Hospitals  Maternity Hospital (half fee)	\$125.00 10.00
FIFTH YEAR.  Class fees Caution money (deposit)* Hospitals Maternity Hospital (half fee) Athletics	\$125.00 10.00 10.00 6.00
FIFTH YEAR.  Class fees Caution money (deposit)* Hospitals Maternity Hospital (half fee) Athletics	\$125.00 10.00 10.00 6.00
FIFTH YEAR.  Class fees  Caution money (deposit)*  Hospitals  Maternity Hospital (half fee)	\$125.00 10.00 10.00 6.00
FIFTH YEAR.  Class fees Caution money (deposit)* Hospitals Maternity Hospital (half fee) Athletics Fee for the Degree of M.D., C.M.†	\$125.00 10.00 10.00 6.00 3.00 30.00
FIFTH YEAR.  Class fees Caution money (deposit)* Hospitals Maternity Hospital (half fee) Athletics Fee for the Degree of M.D., C.M.†	\$125.00 10.00 10.00 6.00 3.00 30.00

<sup>\*</sup>The Caution money deposit is intended to cover breakages in the different laboratories, etc. The amount of the deposit, less deductions (if any) will be returned at the close of the Session.

† When the Degree is conferred in absentia an additional fee of twenty dollar will be exacted, unless the candidate has been specially exempted by the Faculty.

Repeating students must also pay in addition to the above, \$3 for Athletics and make the usual caution money deposit of \$10.

Fee for students from other colleges who have paid

full fees there for courses to be taken........ \$35.00

These students are also required to pay in addition \$3 for Athletics, an ad eundem fee of ten dollars, the Hospital fees exacted in the year to which they are admitted, and to make the usual caution money deposit of ten dollars.

Partial Students will be admitted on payment of special fees.

Fee	for	Supplemental Examination	\$5.00
Fee	for	the Undergraduates' Society	1.00

(At the request of the students in this Faculty the above sum will be collected from each, at the time of the payment of the sessional fees.)

The fee for the regular Graduate Course will vary in proportion to the number of subjects taken. A registration fee of \$5.00 will be exacted from each person taking this Course.

Fee for the Course in Public Health, and Diploma.. \$50.00

#### FEES IN DENTISTRY.

Students in Dentistry pay the following fees for the whole course:—

For Tuition (\$125 per year)	\$500.00
For Grounds and Athletics (\$3 per year)	
Graduation Fee	30.00

\$542.00

They are also required to make a caution money deposit of \$10.00 each year. This is intended to cover breakages in the different laboratories, etc., and will be returned, less deductions (if any), at the close of the Session.

FEES IN LAW.	
(For Regulations re payment, see page 64.	
Registration Fee Sessional Fee (including fee for Athletics) for the undergraduate course Athletics Fee parallel in the course i	. \$5.00
reflected fee, payable by Partial Students	
Graduation Fee	
	12.50
Fees for Partial Students:—	
For course in Roman Law.  For each of the following courses: Successions, Criminal Law, Commercial Law, Obligations, Civil Procedure  For each of the shorter courses.  Caution Money.—Every student is required to dep	15.00
the Bursar the sum of \$5, as caution money, to cover done to furniture, loss of books, etc. This amount, ductions (if any), will be returned at the close of the Fee for the Degree of D.C.L	damage less de-
FEES IN THE GRADUATE SCHOOL.	
For each year of the course leading to the Degree of M.A., M.Sc., or Ph.D.	
Graduation fee for M.A. or M.Sc.	\$40.00
" (In aboutin)	20.00
Pn.D	40.00
D.Sc	30.00
" D.Litt	80.00
(in course)	80.00

The examination and graduation fee is payable when the candidate presents himself for examination and is not returnable if he is unsuccessful. If, however, a candidate for the Degree of M.A. or M.Sc. fails he may present himself

in a subsequent year without further payment of fees. A candidate for the Degree of D.Sc. or D.Litt. in case of failure may present himself in a subsequent year upon payment of an additional sum amounting to one-half of the usual fee for this Degree.

Lecturers, tutors and demonstrators in this University who are proceeding to the Degree of Master of Arts, Master of Science, or Doctor of Philosophy, shall be exempt from the tuition fees, but will be required to pay the fee for graduation in every case.

No fee shall be charged for the Degree of LL.D., granted "honoris causa."

#### MISCELLANEOUS FEES.

Elocution (optional)	\$5.00
Library (optional for students in Medicine; included	
in sessional fee in the case of all others)	4.00
Gymnasium (optional for undergraduates in Law and	
Medicine, and also for partial students in all Fa-	
culties; included in sessional fee in the case of	
all others)	2.50
Fee for the McGill Union (optional and payable to	
the Bursar, or the Secretary of the Union)	5.00
Certificate of standing, as to year of Course	1.00
Certificate of standing, accompanied by a statement	
of classification in the several subjects of ex-	
amination	2.00

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.

### DEGREES.

### I. ORDINARY DEGREES.

In order to obtain the Degrees of B.A., B.Sc., B.Arch., B.C.L., M.D., C.M., and M.D.S., students are required to attend lectures (for length of courses, see pages 7 to 10), to complete the course of study for the Degree sought, to pass all the prescribed examinations during the course, and any special examinations for graduation, and to perform such other exercises as may be prescribed to that end.

The requirements for a Bachelor's Degree in the Faculty of Agriculture are given on page 10, and those for the Degrees in Music on page 181.

## II. HIGHER DEGREES.

All theses for the Degrees of D.D.S. and D.C.L. should be sent to the Registrar of the University, and all others to the Chairman of the Committee on Graduate Studies. No thesis will be received or examination granted until the fee for the Degree has been paid.

### Degree of M.A.

Bachelors of Arts of at least one year's standing who, after graduation, shall have taken for one year a Graduate Course of Study in Arts in the University, previously submitted to and approved by the Committee on Graduate Studies, shall have passed an examination at the end of the year, shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of the Department concerned and by the Committee on Graduate Studies) and shall have performed such other exercises as may be prescribed to that end; or Bachelors of Arts of at least two years' standing who shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of

the Department concerned and by the Committee on Graduate Studies), shall have passed a special examination for the Degree, and shall have performed such other exercises as may be prescribed to that end,—the whole to the satisfaction of the Committee on Graduate Studies and also of any other examiners whom the Corporation may associate with that Committee—shall be entitled to the Degree of Master of Arts.

For detailed regulations regarding the Degree of Master of Arts, see under "Graduate School."

All theses for 1908-9 must be in the hands of the Chairman of the Committee on Graduate Studies on or before April 1st, 1909. No thesis received after this date will be accepted. The examination will be held in April.

### Degree of M.Sc.

Bachelors of Arts, or Bachelors of Science, or Bachelors of Applied Science of at least one year's standing who, after graduation, 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 Committee on Graduate Studies, shall have passed an examination at the end of the year, shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of the Department concerned and by the Committee on Graduate Studies), and shall have performed such other exercises as may be prescribed to that end; or Bachelors of Arts, or Bachelors of Science, or Bachelors of Applied Science of at least two years' standing, who shall have presented a satisfactory thesis (the title of which must have been previously approved by the Head of the Department concerned and by the Committee on Graduate Studies), shall have passed a special examination for the Degree and shall have performed such other exercises as may be prescribed to that end—the whole to the satisfaction of the Committee on Graduate Studies, and also of any other examiners whom the Corporation may associate with the Committee,— shall be entitled to the Degree of Master of Science. For detailed regulations regarding the Degree of M.Sc., see under "Graduate School."

All theses must be in the hands of the Chairman of the Committee on Graduate Studies on or before April 1st, 1909. No thesis received after this date will be accepted. The examination will be held in April.

### Degree of D.D.S.

Masters of Dental Surgery who have either presented at any time later than one year after graduation a satisfactory thesis, embodying original research, upon some branch of dental science; or have, at the completion of three years, passed satisfactorily an examination in advanced dentistry, the scope of which shall be determined by the Faculty of Medicine, shall be entitled to the Degree of Doctor in Dental Science.

### Degree of D.Litt.

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

## 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, and graduates of at least five years' standing, who 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.

### Degree of Ph.D.

Bachelors of Arts, or Bachelors of Science, or Bachelors of Applied Science of McGill University, or graduates of other universities holding Degrees which shall be accepted by

the Committee on Graduate Studies as the equivalent of any of these, who, after graduation, shall have taken a graduate course of study for three years, in the University, or at least one year in the University and not less than two years at some other recognized seat of learning, shall have passed an examination at the end of the course, shall have presented a satisfactory thesis, and shall have performed such other exercises as may be prescribed to that end, the whole to the satisfaction of the Committee on Graduate Studies, and also any other examiners whom the Corporation may associate with that Committee, shall be entitled to the Degree of Doctor of Philosophy.

For detailed regulations, see under "Graduate School."

### Degree of D.C.L.

Candidates for the Degree of Doctor of Civil Law must be Bachelors of Civil Law of at least twelve years' standing. They are required to pass a special examination for the Degree and to present a satisfactory thesis or published work on some subject selected or approved by the Faculty of Law. For details of the examination, etc., see under Faculty of Law, page 267.

### Degree of LL.D.

Except as hereinafter mentioned, the Degree of Doctor of Laws is given only as an honorary Degree.

Any person who matriculated and attended lectures in the Faculty of Arts before the 31st January, 1899, may proceed to the Degree of Doctor of Laws, in course, upon the following conditions:—

Candidates for the Degree of LL.D., in course, must be Masters of Arts of at least twelve years' standing, and are 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.

Candidates are also required to submit, with their thesis, a list of books treating of some one branch of literature or of science satisfactory to the Faculty, in which they are prepared to submit to examination, and in which they shall be examined, unless otherwise ordered by the Faculty.

### III. ADMISSION "AD EUNDEM GRADUM"

The following are the regulations applicable to admission "ad eundem gradum":—

## Extract from the Statutes, Chap. VIII.

"Graduates of other universities, desirous of admission to "the like Degree in this University, may be so admitted by "the Corporation; due enquiry being first made as to their "moral character and sound learning, and opportunity given "to the several Faculties, or the Committee on Graduate "Studies, as may be required, to make such representation in "the premises as they may see fit. Provided always, that, "except in the case of candidates proceeding to a higher Degree, such admission shall not be put to vote until after three months' notice, unless by unanimous consent, and shall "not be ordered, if as many as five members of the Corporation shall vote against it."

## Extracts from the Regulations of the Corporation.

"In all cases in which anyone is proposed for any "ad "eundem" Degree, it shall be necessary for the member or "members of the Corporation making such proposal, to state "in writing therewith the grounds upon which the granting "of such Degree is advocated, and when the case shall be referred to the Faculties, under Chap. VIII. of the Statutes,

"copies of such proposal and grounds shall be transmitted to "the Faculties by the Registrar for their consideration."

Note. In considering applications under the above regulations, the Faculties will require as "grounds" the pursuit of a course of study or research in this University; association with the academic work of the University; or similar qualifications.

Admission "ad eundem gradum" is not granted merely as a titular distinction.

"The Degree of Bachelor of Arts or Bachelor of Science, "ad eundem, shall be granted only to candidates who are "proceeding to a higher Degree, and admission to the lower "Degree shall be withheld until the higher Degree has been "granted."

"Graduates of all universities desiring an ad eundem Degree of this University, as a condition of entering on a course of study leading to a higher Degree, shall make application to the Committee on Graduate Studies, who shall thereupon report their recommendation to Corporation, which body shall immediately take action without previous reference to the various Faculties."

The Chairman of the Committee on Graduate Studies is Dr. Frank D. Adams.

# CONDUCT AND ATHLETICS.

### MORALS AND DISCIPLINE.

I. University discipline shall be exercised by the several Faculties, and by the Committee on Morals and Discipline, subject in the cases hereinafter mentioned to revision or confirmation by Corporation.

2. Subject to the provisions of the following section, each Faculty shall be entitled to exercise University discipline

over its own students.

- 3. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be dealt with by a Standing Committee of Corporation, to be known as the Committee on Morals and Discipline, which shall consist of the Vice-Principal, the Deans of the several Faculties, one member of the Board of Governors and another member of Corporation who must be outside of the University staff. The two members last named shall be appointed annually at the regular meeting of the Corporation in February. The Committee shall have power to add to their number the President and Vice-President of the Students' Court of Honour, in cases in which that body has taken action and made a report.
- 4. All such cases of discipline as are referred to in subsection 3 shall be reported to the Principal, or, in his absence, to the Vice-Principal, or, in the absence of both, to the senior Dean present in the City. If the Principal, or, as the case may be, the Vice-Principal or the Dean, deems action necessary, the matter shall be reported to the Committee on Morals and Discipline.
- 5. When sentence of expulsion or of suspension for more than three months has been pronounced by a Faculty, or

by the Committee on Morals and Discipline, the Corporation may entertain an appeal.

6. "University discipline" shall mean any appropriate method of exercising authority over students, and shall, but without prejudice to the foregoing generality, include the power of expulsion, suspension, disqualifying from competing for scholarships, exhibitions, medals, prizes or honours, imposing fines, not exceeding \$25, on any student, levying assessments for damage done, reporting to parents or guardians and admonition.

7. Any student found guilty of immoral, dishonest, disorderly or improper conduct, or of wrongfully causing damage to person or property shall be liable to University discipline.

8. If on an occasion of general disorder on the part of a year, class, or group of students, damage be done to University property, or acts committed meriting discipline, and the individuals who have done such damage, or committed such acts, have not been discovered, an assessment to cover the damage may be laid, or a fine imposed, or both, on all the members of such year, class or group.

9. While in college, or in the college grounds, students shall conduct themselves in the same orderly manner as in the class-rooms. Smoking is prohibited in the college buildings, except in such rooms, if any, as may be set apart for that purpose. Any Professor observing improper conduct on the part of a student in the college buildings or grounds may admonish him, and, if necessary, report him to the Dean of the Faculty in which he is enrolled. Without, as well as within the walls of the college, every student is required to maintain a good moral character.

#### COLLEGE GROUNDS AND ATHLETICS.

The management of the college grounds and of out-door athletics and sports is under the control of a Committee consisting of a member of the Board of Governors, the Principal, a member of each Faculty, the medical Director of Physical Training, a graduate, the President of the Athletic Association, and an undergraduate representative from each of the affiliated clubs.\*

The several members of the Committee are elected annually by their respective bodies. 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:

During the summer season the Sherbrooke Street gates shall be closed between 10 p.m. and 6 a.m. every day, and the University and McTavish Street gates between 6 p.m. and 7 a.m. on week days and the whole day on Sunday.

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 may be permitted to issue special tickets, 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 Medical Director of Physical Training. A complete record of all such examinations shall be kept by the Director or some other officer appointed to this duty. The managers and captains of Clubs, or other responsible executive officers, are required to insist upon the strict observance of the rule in regard to medical examination, and all the rules and regulations of the Committee which concern them.

All Clubs must submit their regulations, rules, and by-

<sup>\*</sup> By resolution of Corporation this Committee will henceforth be known as the "Athletics Committee of Corporation".

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.

Clubs must not engage in matches with outside clubs

except with the approval of the Committee.

• The Athletic Association must submit its programme for each year for the approval of the Committee.

All students in good standing who are taking a course of study held to be sufficient will be allowed to take part in athletics, subject, however, to the regulation of the Athletics Committee of Corporation regarding medical examination.

Suspension from lectures for any cause, or absence from more than one-eighth of the total number of lectures given in any course, as shown by the monthly reports furnished to the Dean of each Faculty by the several Professors and Lecturers, shall be considered as sufficient ground to disqualify a student for engaging in athletic contests.

Partial students will be debarred from entering athletic competitions or contests unless they take courses which are considered adequate by a special committee of the Faculty in which they are enrolled.

All students of the University are required to pay a fee of three dollars (\$3.00) for the use of the grounds. (This fee is included in the sessional fee except in the case of students in Medicine.) 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 portions of the grounds used for athletics.

The amount derived as grounds and athletics fees from the students of the Royal Victoria College is placed at the disposal of the Committee in charge of the grounds, for expenditure in the interests of women-students.

The annual sports of the University are held on the second Friday of October in each year. The day is observed as a holiday.

### UNIVERSITY ATHLETIC ASSOCIATION.

All matters connected with athletics at the University are under the direct supervision of the University Athletic Association, which, in turn, is responsible to the "Grounds and Athletics Committee." The executive of the Athletic Association consists of the presidents of the various clubs of the Association, twelve in number.

The Track Club has its special field in regulating and encouraging "Track and Field Athletics." The management of the Inter-class sports and of the annual University sports is in the hands of this club.

The Rugby Football Club is represented by a senior and intermediate team in the Intercollegiate Union, and a junior team in the Q.R.F.U. In addition to these championship matches, a series of inter-class matches is played annually for the "Wood Cup."

The Skating and Hockey Club has a well established reputation. As in football, a series of inter-class games is played annually, in this case for the "Capper Trophy."

The Association Football Club, the Basket-Ball Club, the Boxing Club, the Cricket Club, the Harriers' Club, the Lawn Tennis Club, the Wrestling Club, the Fencing Club, and the Swimming Club, are the remaining clubs under the Association. Most of them conduct inter-class matches, and have a senior team, which represents the University in outside matches.

#### GYMNASIA. -

# (1) The University Gymnasium.

Medical Director of Physical Training:—F. W. Harvey, B.A., M.D.

Instructor: -W. J. Jacomb.

The classes, which are open to men students of all Faculties, will meet at the University Gymnasium at hours to suit, as far as possible, the convenience of students.

Instruction, apart from the regular classes, is given in

boxing, wrestling, fencing, jiujitsu and swimming, for each of which a special fee is required.

Special attention is given to the application of exercise in treating cases of weakness or deformity.

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 Registrar 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.

### (2) The Royal Victoria College Gymnasium.

Instructor: - Miss E. H. Cartwright.

Classes for women-students are conducted in the gymnasium of the Royal Victoria College, at hours arranged to suit the convenience of the students, all of whom are required to pass a satisfactory medical examination before engaging in basket ball, or other exercises in the gymnasium. Students of the First Year are required to take regular physical exercise in the gymnasium, amounting to two periods per week.

The Strathcona prizes of \$20 and \$10 are open for competition to students of the Second and Fourth Years, under the following regulations:—

(1) Competitors must be able to show an attendance of 65% on the gymnastic classes throughout the session.

(2) No prize shall be awarded unless the judges consider the work up to a standard of 75%.

- (3) The prize shall be awarded if one candidate reach the required standard, even if there be no competition.
- (4) The prize shall not be awarded should the winner fail in obtaining her full academic standing.
- (5) A programme from which the exercises are to be chosen will be posted in the gymnasium at the beginning of each session (not later than October 15th of each year), and the actual programme of the competition will be posted not later than January 15th.
- (6) Judges for these competitions shall be appointed yearly by the Corporation, on the recommendation of the Medical Director of Physical Training.

### ACADEMIC DRESS.

Professors, lecturers and students are required to wear academic dress at lectures, except in those cases in which a dispensation shall have been granted by the Faculty.

Undergraduates shall wear a plain black stuff gown, not falling below the knee, with round sleeve cut above elbow.

Bachelor of Arts.—Black stuff rown, falling below knee, with full sleeve cut to elbow and terminating in a point (similar to that of the Cambridge B.A.); hood, black silk, lined with pale blue silk and edged with white fur.

Bachelor of Science.—The same gown as Bachelors of Arts; hood, black silk, lined with yellow silk and edged with white fur.

Bachelor of Civil Law.—The same gown as Bachelors of Arts; hood, black silk, lined with French grey silk and edged with white fur.

Master of Arts.—Black gown of stuff or silk, falling below knee, with long sleeve with semi-circular cut at the bottom (similar to that of the Cambridge M.A.); hood, black silk, lined with pale blue silk.

Master of Science.—The same gown as Masters of Arts; hood, black silk, lined with yellow silk.

Doctor of Medicine.—The same gown as Masters of Arts; hood, scarlet cloth, lined with dark blue silk.

Doctor of Laws.—The same gown as Masters of Arts: hood, scarlet cloth, lined with white silk.

Doctor of Literature.—The same gown as Masters of Arts; hood, scarlet cloth, lined with pale blue silk.

Doctor of Science.—The same gown as Masters of Arts; hood, scarlet cloth, lined with yellow silk.

Doctor of Civil Law.—The same gown as Masters of Arts; hood, scarlet cloth, lined with French grey silk.

Doctors of Laws, Doctors of Civil Law, Doctors of Literature, and Doctors of Science shall be entitled to wear for full dress a robe of scarlet cloth (similar in pattern to that of the Cambridge LL.D.) faced with silk of the same colour as the lining of their respective hoods,

All hoods shall be in pattern similar to that of the Masters of Arts of Cambridge University.

Undergraduates and graduates shall wear the ordinary black trencher with black tassel, but Doctors of Laws, Doctors of Civil Law, Doctors of Literature, and Doctors of Science shall wear for full dress a black velvet hat with gold cord, similar to that worn by Doctors of Laws of Cambridge University.

Samples of the colours of the linings of all hoods shall be kept for inspection in the office of the Registrar.

# THE UNIVERSITY LIBRARY.

C. H. GOULD, B.A., Librarian.

The University Library is under the general management of a Committee of Corporation, consisting of the Principal, Chairman; the Librarian, Secretary; two members of the Board of Governors; one Representative Fellow, appointed by Corporation; two representatives of the Faculty of Arts, elected by the Faculty; one representative of each of the Faculties of Applied Science, Law and Medicine, elected by their respective Faculties; and four other members appointed by Corporation.

The various libraries of the University now contain over 115,000 volumes, over 20,000 pamphlets, and considerable collections of maps and of photographs.

In addition to providing for the symmetrical growth of the Library, the Committee has been enabled, through generous gifts, to acquire a number of the rarer and more costly monographs and serials which are indispensable for research, there being now on the shelves nearly 300 complete fyles of periodicals and publications of various literary and scientific societies. Many of these have been added through the liberality of Sir William C. Macdonald.

Among the special collections, exclusive of departmental libraries, mention should be made of the *Redpath Historical Collection*, formed by the late Mr. Peter Redpath some years before his death, and, from that time forward, steadily augmented during the remainder of her life, by his widow. It is now of great value, and affords unusual opportunities for the study of English History. The most striking feature of the collection—a series of political and religious tracts—was greatly enriched by the late Mrs. Redpath, and now comprises about 10,000 brochures, dating from 1600 to the end of the nineteenth century.

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 growing, and includes, besides important manuscripts, an interesting collection of Canadian portraits and autographs.

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.

Current periodicals, with Transactions and other Society publications to the number of about 375 in the aggregate, are regularly received by the Library. The list of these serials is being extended year by year.

During the autumn of 1900, members of the family of the late Mr. Hugh McLennan generously enabled the Library Committee to establish a system of travelling libraries, and have since provided for the maintenance and operation of the system. The libraries are sent on application, and on payment of a nominal fee of \$3.00, to any point in Canada. Regulations and full particulars may be obtained from the Librarian of the University.

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.

### 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., and from 7.30 till 10.30 p.m. On Saturdays, the Library closes at 5 p.m. During vacations, the Library closes at 5 p.m., and on Saturdays at 1 p.m.

- 2. Students in the Faculties of Arts, Law, and Applied Science are entitled to read in the Library, and may borrow books (subject to the regulations) to the number of three volumes at one time.
- 3. Students in the Faculty of 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 other Faculties. 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 in Arts, Law, or Applied Science.
- 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 the books are charged to them, and borrowers returning books must see that their receipt is properly cancelled.
- 9. 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.

10. Damage to or loss of books, maps, or plates, and injury of Library fixtures, must be made good to the satisfaction of the Librarian and of the Library Committee.

Damage, loss or injury when the responsibility cannot be traced will be made good out of the caution money deposited by students with the Bursar.

- II. Should any borrower fail to return a book upon the date when its return is due, he may be notified by postal card of his default, and be requested to return the book. If the loan is not renewed, or the book returned, after a further delay of at most three days, it may be sent for by special messenger, at the borrower's expense.
- 12. Before the close of the session, students in their final year must return uninjured, or replace to the satisfaction of the Librarian, all books which they have borrowed.
  - 13. Silence must be strictly observed in the Library.
- 14. Infringement of any of the rules of the Library will subject the offender to a suspension of his privileges, or to such other penalty as the nature of the case may require.

#### McGILL COLLEGE BOOK CLUB.

ESTABLISHED. A.D. 1869.

This Club is in the 40th year of its existence, and has for its two-fold object to procure an early supply of new books (novels excluded) for its members, and the increase of the Library. By this means an addition has already been made to the Library of not less than 4,000 volumes in special and general literature.

Membership in the Club is open to all, at an annual subscription of ten dollars.

Apart from the advantages to be directly derived from membership, there is the special privilege accorded to members of using the College Library on the same conditions as graduates, without being required, however, to make a deposit when books are borrowed.

The members of the Executive Committee are as follows:—Dr. Alex. Johnson; F. P. Walton, B.A., LL.B., LL.D.; Mr. G. B. Cramp, K.C.; Dr. Andrew Macphail; Wm. Gardner, M.D.; F. J. Shepherd, M.D., and Mr. G. A. Farmer, to any of whom application for membership may be addressed, or to Mr. E. M. Renouf, Secretary, at the Club's Depository, 472 St. Catherine Street West.

# SPECIAL INFORMATION REGARDING THE FACULTY OF ARTS.

THE SESSION 1908-1909 WILL OPEN ON MONDAY, SEPTEMBER 21ST, 1908. STUDENTS ENTERING THE UNIVERSITY WILL REGISTER AT THE REGISTRAR'S OFFICE BETWEEN THE 17TH AND 19TH OF SEPTEMBER (BOTH DAYS INCLUSIVE); STUDENTS PREVIOUSLY ENROLLED WILL REGISTER IN THE SAME PLACE ON THE 19TH AND 21ST.\*

Information on the following matters will be found by referring to the pages mentioned:—

	PAGES
Admission of partial students	 14
Attendance	 35
Exhibitions and Scholarships	 42
Fees	65
Matriculation	22
Medals and Prizes	60
Summer Classes/	16
	 10

For Time Tables of Lectures and Examinations, see first part of Calendar.

### REGULATIONS FOR THE DEGREE OF B.A.

After passing the 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. (Undergraduates are arranged in years, from First to Fourth, according to their academic standing.) The conditions of passing into the last three years of the undergraduate course are stated on page 105.

<sup>\*</sup> For full particulars regarding registration see page 35.

Before October 1st (except in special cases), every undergraduate is required to submit to the Faculty, through the Dean's office, for approval, a written statement of the subjects he proposes to study during the session. He will not be allowed to discontinue any of these, if approved, or begin or obtain credit for an examination in any other, without the special permission of the Faculty.

# I. ORDINARY COURSE FOR THE DEGREE OF B.A.

### First Year.

Greek, I or 2, (page 113) or Latin, I, (page 116).

English, IA, IB (page 121) and History, I (page 147).

Mathematics, I—Algebra, Geometry and Trigonometry—(page 155).

Latin, I(page 116), or Greek, I or 2(page 113), or French, I, 2(page 129), or German, I or 2 (page 132), or Spanish, (page 135).

Physics, I (page 158).

B.A. students taking both French and German in the First Year may be exempted from First Year Physics, which they are required to take in the Second Year, together with some half-course of the Second Year. Such students may take their Second Year Science subject in the Third or Fourth Year and shall be required to obtain at least 50 per cent. of the maximum number of marks given to it.

German may be taken instead of Trigonometry by students who intend to read for Modern Language Honours. This option will, however, be granted only on the recommendation of the Modern Language Department.

French cannot be taken as a qualifying option in the First Year, except by students who have passed the matriculation examination in this subject.

An additional language may be taken as an extra subject in the first two years, if application be made to, and permission obtained from the Faculty at the beginning of the session. Credit will be given for it on application.

First Year students are under the immediate direction of an Advisory Committee, consisting of all the members of the staff who are engaged in their instruction. A system of supplementary tutorial teaching is now in operation in this Year. For regulations regarding entrance to the Second Year, see page 105:

Advanced Courses.—A student qualified to take work of a more advanced character than the ordinary work of the First Year in any subject, shall, with the consent of the B.A. Advisory Committee, take such advanced work in that subject as the Department concerned may recommend, or may substitute another ordinary subject for the subject in question. This regulation applies only to students whose qualifications are of exceptional character.

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

An outline of the First Year Course for the Diploma of Commerce will be found on page 178.

#### Second Year.

English Composition, 2B (page 122).

Latin, 2 (page 117) or Greek, 3 (page 114).

and three of the following:

Greek, 3 (page 114) or Latin, 2 (page 117).

English, 2A (page 122).

French, 3, 4 (page 129).

German, 3 (page 133).

Semitic Languages, A (1) and B (page 136).
Psychology and Logic, 1A and 1B (page 141).

Economics, 2 (page 150) and History, 2 (page 148).

Mathematics, 2 (page 156).

Elementary Biology [Zoology, 1A (173) and Botany, 1 (page 168).

Chemistry, 1 (page 161).

Physics, 2 (page 160)—only for students taking the advanced course in Mathematics.

Students intending to take the double course in Arts (B.A.) and Applied Science must take Mathematics and Chemistry; those intending to take the double course in Arts (B.A.) and Medicine must take Chemistry and Biology.

Advanced Courses will be offered in the Second Year as in the First.

Students taking an advanced course may be excused from the work of the corresponding ordinary course, on the recommendation of the Professor. An exemption from one other of the three subjects specified above may be granted to Honour students in Mathematics who take both the ordinary and the advanced course in Mathematics, but to no others.

An outline of the Second Year Course for the Diploma of Commerce will be found on page 178.

For regulations regarding entrance to the Third Year, see page 105.

### Third and Fourth Years.

The subjects of the Third and Fourth Years are arranged in the following divisions:—

LANGUAGE AND LITERATURE.	HISTORY, PHILOSOPHY AND LAW.	Science.
English, 3A 3B, 4A, 4B and 3 C and 4 C (page 122). Latin, 3 (page 117). Greek, 4 (pige 114). Sanskrit, 1A, 1B (page 119).	Philosophy, 2, 3, 4 or 5 (page 142). History, 3 (page 148). Economics, 3 (page 151). Political Science, 4 (page 151). Education (page 154).	156). Mechanics, 4 (page 151), and Astronomy, 4
Comparative Philology (half course), A, B (page 120). French, 5 (page 130). German, 4 (page 133). Italian, in alternate years (page 135). Semitic Languages, A (2)	Constitutional Law (page 155) (half course).	Sound, Light, Heat (full course), 2 (page 160).  Electricity and Magnetism (full course), 3 (page 160).  Chemistry, 2, 3, 4; 5, 6; or 7, 8 (page 162).
and B (page 137).		Geology, 1 (page 165). Zoology, 2 (page 173). Botany, 2, 3 (page 169). *Physiology. *Anatomy.

<sup>\*</sup> These courses in the Faculty of Medicine are accepted as the equivalents of ordinary courses in the Faculty of Arts in the case of Double Course students in Arts and Medicine, but not otherwise.

From the above divisions six courses are to be selected by each student in the Third and Fourth Years, three in each Year. Each will be studied in lecture courses extending over not more than four hours per week, with collateral reading, and, in the case of the science subjects, laboratory work. One subject chosen in the Third Year must be continued by every student in his Fourth Year (Political Science, 4, will be accepted as a continuation of Economics, 3, and vice versa); two subjects may be continued if application to that effect be granted by the Faculty or the Advisory Committee of the Faculty. Of the whole six courses, one must and three may be chosen by all candidates from the list of subjects included under the head of Science, except when Chemistry or Biology has been selected as an option in the Second Year, in which case no science subject need be taken.

In addition to the six courses, a course of one hour a week in English Composition (3C, 4C) must be taken by every candidate for the ordinary B.A. in the Third and Fourth Years, and also by Honour students in English.

The Advisory Committee will neet not later than October 1st in each session, and will report to the Faculty on the subjects selected by students in each of the four Years.

In order to obtain an ordinary B.A. Degree of the first class, a candidate must obtain nct only the required aggregate of marks (viz., three-fourths of the maximum), but also first class standing in three of his subjects, and not less than second class in any subject.

For arrangements whereby a student can take the course in Arts and Applied Science or Law in six years, or Arts and Medicine in seven or eight years, see page 106.

### II. HONOUR COURSES FOR THE DEGREE OF B.A.

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 regular examinations in all the subjects proper to their Year.

A student proposing to read for an Honour Course:-

(1) Must satisfy the Department of his qualifications to proceed with the subject or subjects in question;

(2) Must, while attending lectures, make progress satisfactory to the Department. In case his progress is not satisfactory he may be notified by the Faculty to discontinue attendance.

Students who wish to graduate with Honours in any subject are strongly recommended to take the Advanced Courses in these subjects in the First and Second Years, where such are provided.

A candidate for Honours must take the ordinary course in the subject in which he is reading for Honours, but where the Honour Course corresponds to two ordinary subjects, a candidate may, at the discretion of the Department, be exempted from attendance on lectures in these ordinary subjects for a number of hours not exceeding four weekly. In addition to the ordinary subject specified above, he is required to take a second ordinary subject, which may be determined by the Department in which he is a candidate for Honours. The Faculty may, on the recommendation of the Department, exempt any student from the obligation to take a second ordinary subject.

A student who desires to be a candidate for B.A. Honours must have taken at least Second Rank Honours in the Third Year. In this case he shall be required to take only one subject in his ordinary course, viz., that in which he is reading for Honours. A candidate, however, who obtains Third Rank Honours at the B.A. Examinations, will not be allowed credit at the end of the session for the exemption from other ordinary subjects, unless the examiners certify that his knowledge of the whole Honour Course is sufficient to justify it.

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.

No student is allowed to attend two Honour Courses without the special permission of the Faculty.

Note.—For subjects of Ordinary Course, see page 93.

The Honour Courses offered are as follows:-

#### I. CLASSICS.

Third Year:—Greek—Lecture Courses, 4, 5 (page 114).

Latin— " 3, 4 (page 117).

Fourth Year:—Greek—Lecture Courses, 4, 5 (page 114).

Latin— " 3, 4 (page 117).

#### II. LATIN AND ENGLISH.

Third Year:—Latin—Lecture Courses, 3, 4 (page 117).

English— " 5 and three other courses chosen from 9, 10, 11, and 12 (page 125).

Fourth Year:—Latin—Lecture Courses, 3, 4 (page 118).

English—One hour per week of Language, and three of the courses enumerated above which have not been taken in the Third Year.

#### III. LATIN AND FRENCH.

Third Year:—Latin—Lecture Courses, 3, 4 (page 117).

French:— Lecture Courses, 5, 7, 9 (page 130).

Fourth Year:—Latin—Lecture Courses, 3, 4 (page 117).

French:— Lecture Courses, 5, 7, 9 (page 130).

#### IV. LATIN AND GERMAN.

Third Year:—Latin—Lecture Courses, 3, 4 (page 117).

German—Lecture Courses, 4, 6, 8 (page 133).

Fourth Year:—Latin—Lecture Courses, 3, 4 (page 117).

German—Lecture Courses, 4, 6, 8 (page 133).

#### V. ENGLISH.

Third Year:—Lecture Courses, 3A, 3B, 3C, 5, 10, 11, 12, and 13 (page 122).

Fourth Year:—Lecture Courses 4A, 4B, 4C and either 6, 7, 8, or 10, 11, and 12, with one hour a week in Language (9), (page 124).

#### VI. MODERN LANGUAGES.

Third and Fourth Years:—French—Lecture Courses, 5, 7, 9 (Session 1908-9) (page 130).

German—Lecture Courses, 4, 6, 8 (page 133).

Comparative Philology (for Third Year students) (page 120).

Third and Fourth Years:—French—Lecture Courses, 6, 8, 9 (Session 1909-10) (Page 130).

German—Lecture Courses, 5, 7, 8 (page 133).

### VII. SEMITIC LANGUAGES.

One of the following:—
Hebrew (page 138).
Arabic (page 139).
Aramaic (page 140).

### VIII. GREEK AND HEBREW.

Third Year:—Greek—Lecture Courses, 4, 5 (page 114).

Hebrew— " (page 137).

Fourth Year:—Greek—Lecture Courses, 4, 5 (page 114).

Hebrew— " (page 137).

### IX. MENTAL AND MORAL PHILOSOPHY.

Third Year:—Lecture Courses 5A, 5B; or 7 with 8 or 9 (page 143).

Fourth Year:—Lecture Courses 11, 12, 13, 14 (page 146).

#### X. HISTORY AND ECONOMICS.

A. (Studies chiefly in History and Politics).

Third Year:—History—Lecture Courses 3, 4, 10 (page 148).

Economics and Political Science—Lecture

Courses 3, 4 (page 151).

Fourth Year:—History—Lecture Courses 4. 8, 10 (page 148).

Economics and Political Science—Lecture

Courses 5, 6 and 9, or 10 (page 151).

B. (Studies chiefly in Economics and Politics).

Third Year:—History—Lecture Course 3 (page 148).

Economics and Political Science—Lecture
Courses 3, 4, 5 (page 151).

Fourth Year:—History—Lecture Courses 4, 8 (page 148).

Economics and Political Science—Lecture
Courses 5, 6, 9, 10 (page 151).

A special thesis of advanced character will also be exacted from Fourth Year Honour students in History and Economics, Part A.

For examinations on readings in History at the end of both the Third and the Fourth Years see page 149.

The examination of Honour students on Economics 3 and Political Science 4 will include an extra paper as well as those set to the rest of these classes.

#### XI. HISTORY AND ENGLISH.

Third Year.—History—Lecture Courses 3, 4, 10 (page 148), and thesis in connection with Course 10.

English—Any courses aggregating six hours a week may be chosen from the programme of the English Department for the Third and Fourth Years (pages 125 to 128).

Fourth Year:—History—Lecture Courses 4, 8, 10 (page 148).

English—Any courses aggregating six hours a week may be chosen from the programme of the English Department for the Third and Fourth Years, so long as these courses have not already been taken by the student in his Third Year (pages 125 to 128).

A special thesis of advanced character is also exacted from Fourth Year Honour students in History and English.

### XII. MATHEMATICS AND PHYSICS.

Third Year:—Mathematics—Lecture Courses 8, 9, 10, 11 (page 157).

Physics—Lecture Courses 3, 4, 5 (in part) (page 160).

Fourth Year:—Mathematics—Courses selected from 12, 13, 14, 15 (page 157).

Physics—Lecture Course 5 (page 161).

### XIII. CHEMISTRY.

Third Year:—Chemistry—Lecture Courses 2, 3, 4 (page 162).

(Extra reading and laboratory work.) Physics—Lecture Course 2 (page 160).

A half-course in Calculus or Biology, or Geology, or Mineralogy.

Fourth Year:—Chemistry—Lecture Courses 5, 6, 7, 8 or 7, 8, 9 (page 162).

Physics—Lecture Course 3 (page 160).

XIV. GEOLOGY AND MINERALOGY.

Third Year:—Geology—Lecture Course 1 (page 165).

Mineralogy—Courses 1 and 2 (page 164).

Zoology—Lecture Course 2 (page 173).

Chemistry—Lecture Course 2 or 3 and 4 (page 162).

Fourth Year:—Geology—2, 3 (B), 4, 5, 6, 7 (page 166),
Lectures, Laboratory Work, Field Work,
Colloquium, Reading.
Mineralogy, 3 (page 164).
Botany, one half-course, 3a (page 169).

#### XV. BIOLOGY.

Third Year:—Botany—Lecture Course 2 (page 169), and a special course of reading and weekly themes.

Zoology—Lecture Courses 1B, 2 (page 173). and Darwin's Origin of Species.
Geology—Lecture Course 1 (page 165.).

Fourth Year:—Botany—Lecture Course 3 (page 169), and a special course of reading and weekly themes.

Zoology—Lecture Courses 3A and 3B (page 174) and essays on selected subjects.

In addition to the above, Honour courses have been established in English and French and in English and German, the requirements in these subjects being the same as are set down under the head of each in courses II., III., and IV.

### 3. HONOUR COURSES FOR SPECIALISTS IN ONTARIO.

A number of courses, leading to a Degree in Honours in McGill University, and qualifying for specialists' standing in the province of Ontario, have been accepted by the Education Department of that Province. Full details of these courses may be obtained on application to the Dean of the Faculty of Arts. The provincial regulation as to specialists' standing in Ontario is as follows:—

"51. (1) Any person who obtains a Degree in Arts in the Honour Department of Mathematics, Science, Classics, English and History, Moderns and History, or French and German, as specified in the Calendar of any University in Canada and accepted by the Education Department, who has graduated with at least second class Honours (or 66

per cent., in each subject of such Honour Department) and who has been in actual attendance in such department at a University for not less than two academic years, shall be entitled to the non-professional qualification of a specialist in such Department."

Graduates of McGill University who, having taken any of these courses, have obtained the necessary standing in Honours, as stated in the foregoing regulation, will, on attending such courses and passing such examinations in subjects relating to the Art of Teaching and School Management as are prescribed by the Department of Education of the Province of Ontario, be qualified as specialists in that province. Undergraduates will not be permitted to substitute these courses for those of the regular McGill curriculum, except as a whole.

# 4. ORDINARY COURSE FOR THE DEGREE OF B.Sc. (ARTS).

The B.Sc. course in Arts has been specially arranged to give the student a thorough training in science, combined with a good knowledge of English, French, and German. A wide range of sciences may be studied, and the course differs from those offered in the Faculty of Applied Science in the substitution of modern languages for the more purely technical work of that Faculty.

A high standard of attainment will in all cases be exacted, and it is expected that in the Final Year the course will include instruction in the methods of modern research

### First Year.

English, 1A, 1B (page 121), and History, 1 (page 147). French, 1, 2 (page 129), German, 2 (page 132).

Mathematics, 1 (page 155).

Physics, 1 (page 158).

### Second Year.

English Composition, 2B (page 122).
French, 3, 4 (page 129).
German, 3 (page 133).
Chemistry, 1 (page 161)—Laboratory work in addition.
Mathematics, 2 (page 156) or Elementary Biology (pages 168 and 173).

- (a) Upon entering the Second Year, the student must decide upon the general character of the course which he will follow in the Third and Fourth Years. If his course in these Years is to consist chiefly of Mathematics and Physics, he must choose Mathematics; if it is to be chiefly biological or geological, he must take Biology; while if he intends to select Chemistry, he must take Mathematics if he intends to devote special attention to Physical Chemistry, but Biology if he intends to make special study of other branches of this science.
- (b) A candidate for the Degree of B.Sc. must obtain at least 50 per cent. of the marks allowed in both French and German, and shall be required to pass, in addition, an examination which will show that he can read with ease at sight in both languages.
- (c) The student shall, in the Third Year, take a full course in three of the following sciences, viz.:—Mathematics, Physics, Chemistry, Zoology, Botany, Geology. He shall take, in addition, a portion of the B.A. Honour Course in one of them, as well as a course in English Composition.
- (d) In the Fourth Year the student shall devote his time chiefly to advanced work in one of the three sciences which he-has already studied in the Third Year. The course which he is to follow will be drawn up by the Professors of the science which he selects and must be approved by the B.Sc. Advisory Committee. He shall take, in addition, a course in English Composition.

#### EXAMINATIONS IN ARTS.

I. There are two examinations in each year, viz., at Christmas and at the end of the Session. Successful students are arranged in three classes at the sessional examinations. Those who obtain 75 percent and over are placed in the First Class, those who have between 60 and 75 percent. in the Second Class, and those with from 40 to 60 percent. in the Third Class.

Christmas examinations will be held in all the subjects of the First and Second Years, and are obligatory on all undergraduates, and also on all partial students of the First Year, unless they have been specially exempted. Partial students of the First Year, who fail in the Christmas examination, will be requested to withdraw from the class. Twenty-five per cent. of the marks given for the sessional work in each subject will be assigned for the results of the Christmas examinations. Students prevented by illness from attending the Christmas examinations will, on presenting a medical certificate, be given sessional standing on the results of the April examinations. Christmas Examinations in the Third and Fourth Years may be held at the option of the Professors. When held, the same value will be assigned to them as in the case of the First and Second Years.

2. The following are the regulations for entrance into the Second, Third and Fourth Years of the undergraduate course and are subject to the condition that a student shall not be allowed to continue a subject of the preceding year in which he has not made good his standing.

Entrance into the Second Year.—A student who has failed to complete one of the ordinary courses of the First Year, may enter the Second Year without special permission of the Faculty.

A student who has failed to complete two of the ordinary courses of the First Year shall be permitted to enter the Second Year but only on the condition that an average of 50% has been obtained in the other subjects of the First Year Course.

Entrance into the Third Year.—A student may be allowed to proceed to the Third Year with one subject uncompleted if that subject belongs to the Second Year.

Entrance into the Fourth Year.—A student may be allowed to proceed to the Fourth Year with one subject uncompleted if that subject belongs to the Third Year.

Repeating Year.—By special permission of the Faculty, a student who is required to repeat his year may on application in writing:—

- (a) be exempted from attending lectures and passing examinations in the subjects in which he has already passed.
- (b) be permitted to take, in addition to the subjects in which he has failed, one of the subjects of the following year of his course.

N.B.—The choice of subjects must involve no conflict of hours as printed in the Time-table.

3. Examinations supplemental to the sessional examinations will be held in September, simultaneously with the matriculation examinations. The time for each 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.

The examination at the end of the Summer School in any subject will, for those who attend this school, be reckoned as a supplemental examination.

4. A list of those to whom the Faculty has granted supplemental examinations in the following September will be published after the sessional examination.

#### REGULATIONS FOR DOUBLE COURSES.

Any student intending to claim the privileges offered below, is required, at the beginning of the session, to present to the Dean of the Faculty of Arts a certificate of registration in the Professional Faculty, and to produce, at the end of the Session, certificates of attendance and examination in the professional classes specified.

### ARTS AND APPLIED SCIENCE.

1. Undergradutes beginning the Third Year in Arts, who have taken all the ordinary Mathematics of the first two Years, and the Chemistry of the Second Year, and who wish to pursue their professional studies in the Faculty of

Applied Science so as to obtain the degrees of B.A. and B.Sc. (App. Sc.) within the following four years, will be exempted by the Faculty of Applied Science from the Mathematics of the First Year in Applied Science and from Chemistry of the Second Year.

2. They must, unless by special permission of the Faculty of Arts, distribute the course of the Third and Fourth Years in Arts over three years, in accordance with the following schedule of studies:—

### I. In the Third Year:-

(a) Physics of the Third Year.

(b) Two of the courses which are not placed under the heading "Science" in the Arts curriculum. The time tables of the two Faculties allow the following to be chosen:—English, History.

(c) Either one or two hours weekly in English Composition.\*

### II. In the Fourth Year:-

(a) Physics of the Fourth Year.

(b) One hour weekly in English Composition, if only one has been taken in the Third Year.\*

(c) The Mathematics of the Second Year Applied Science (6 hours weekly as one course and a half).

### III. In the Fifth Year:-

The Mathematics of the Third Year Applied Science, or an equivalent course (2 hours weekly as a half course), or another course in the Arts curriculum.

3. Students who, having obtained permission of the Faculty, desire to complete the course for the B.A. Degree in four years, are required to take a full course in one subject in the Arts curriculum in addition to the courses prescribed in 2, II, above.

<sup>\*</sup> Note—Students are recommended to distribute their English work over two years.

#### ARTS (B.A. COURSE) AND MEDICINE.

Students taking this course, who intend to practise in the province of Quebec, are required to matriculate and register with the Quebec Licensing Board not later than the end of their Third Year in Arts.

I. Undergraduates beginning the Third Year, who have taken the Chemistry and Biology of the Second Year, and who wish to pursue their professional studies in the Faculty of Medicine so as to obtain the degrees of B.A. and M.D. within the following five years, will be exempted by the Faculty of Medicine from the subjects of Chemistry, Physics, and Biology in the First Year of the Faculty of Medicine.

2. They may complete the Arts curriculum by taking the following courses:—

### I. In the Third Year:-

- (a) Anatomy and Practical Anatomy, Histology, Embryology and Bacteriology, of the First Year Medicine.
- (b) Zoology, or Chemistry, and one-half the course in Honours Zoology of the Arts curriculum for the Third Year, as well as a modern language, but the language in question must have been taken in the First and Second Years.
- (c) Either one or two hours weekly in English Composition.\*

### II. In the Fourth Year:-

(a) Anatomy and Practical Anatomy, Histology, Physiology, Chemistry, Pharmacy and Bio-Chemistry, of the Second Year Medicine.

(b) One hour weekly in English Composition, if only one has been taken in the Third Year.\*

The two Degrees, B.A. and M.D., may also be obtained in eight years by Honour students in Biology, they being allowed to substitute the Anatomy of the First Year in Medicine for one-half the Zoology of the Fourth Year Arts.

<sup>\*</sup> Note.—Students are recommended to distribute their English work over twovears.

### ARTS (B.Sc. COURSE) AND MEDICINE.

Students taking this course, who intend to practise in the province of Quebec, are required to matriculate and register with the Quebec Licensing Board not later than the end of their Third Year in Arts.

I. Students who wish to take a combined course in the Faculties of Arts and Medicine with a view to obtaining the Degrees of B.Sc. (Arts) and M.D. within seven years, must take Latin under head 6 of the matriculation requirements for the B.Sc. course. See page 23.

2. They must take the ordinary B.Sc. course with the following modifications:—

Second Year students shall take the course in Biology as prescribed for students in Medicine.

Third Year students shall be required to offer one of the following:—

1. Zoology.—(a) The full Ordinary Continuation Course of the Faculty of Arts, and in addition (b) half the Honours Course, the latter to be taken during the first half of the Session.

II. Physics.—(a) The full ordinary course of the Faculty of Arts, under which head students may take either the course in sound, light and heat (Physics 2), or that on electricity and magnetism (Physics 3), or a combined course consisting of portions of these, and in addition (b) advanced work constituting half an Honours Course, the latter to be taken during the first half of the Session.

III. Chemistry.—(a) A half-course in Physical Chemistry, during the first half of the Session (from Chemistry, 7, 8); (b) a half-course in Organic Chemistry, during the second half of the Session (Chemistry, 3, 6); (c) advanced work constituting half an Honours Course, the last to be taken during the first half of the Session.

IV. Botany.—(a) The full ordinary primary course of the Faculty of Arts (Botany, 2); (b) either half the Honours Course prescribed for Fourth Year students in the

Faculty of Arts (Botany, 7); or half an Honours Course in Chemistry, Physics or Zoology. The work under (b) is in any case to be taken during the first half of the Session.

Fourth Year: - Wednesday afternoon and Saturday morning of each week shall be devoted either (1) to Laboratory work in connection with still more advanced study in the subjects selected during the Third Year; or (2) to work in another branch of science, provided the student is sufficiently well grounded to enable him to do the special work which may be assigned to him.

#### ARTS AND LAW.

- 1. Undergraduates who desire to qualify for the Degrees of B.A. and B.C.L. in six years shall include French among the subjects studied in each of the first two years of their course.
  - 2. They shall take:-
  - I. In the Third Year:-
    - (a) French.
    - (b) Political Science.
    - (c) One other of the courses of the Arts curriculum, which shall be selected from those under the heading "Science" in every case in which the Second Year Course has not included either Chemistry or Biology.
    - (d) Either one or two hours weekly in English Composition.\*
  - II. In the Fourth Year:-
    - (a) Economics.
    - (b) Constitutional Law and History.†
    - (c) Roman Law.
    - (d) One hour weekly in English Composition, if only one has been taken in the Third Year.\*

<sup>\*</sup> Note.—Students are recommended to distribute their English work over two

Years.

† Note.—The half course in Constitutional History being given in alternate years only, students shall take it in their Third Year when it is offered in that year.

3. In the case of students who propose to study Law, but are not subject to the statutory requirement of office attendance (see page 9) during the three years of their Law course, the Faculty may, on special application, in individual cases, make such arrangements as to permit of the completion of the double course in five years.

#### COURSES LEADING TO FORESTRY.

See page 172.

#### 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.

The same certificate will also be given to students of affiliated colleges in the Provinces of British Columbia, Alberta and Saskatchewan, who have completed the work of the first two years and have passed the prescribed examinations as undergraduates of McGill University.

#### ARTS AND THEOLOGY.

- I. The Faculty will make formal reports to the governing body of the Theological College which such students may attend as to:—(a) their conduct and attendance on the classes of the Faculty, (b) their standing in the several examinations; such reports to be furnished after the examinations, if called for.
- 2. Students who are pursuing a double course in Arts and Divinity (six years at least) will take in the Third and Fourth Years the courses which constitute the ordinary curriculum in Arts, less a half course in each of these years, or a whole course in either.

### COURSES OF LECTURES IN ARTS.

#### DEPARTMENT OF CLASSICS.

PROFESSORS:- { W. PETERSON, MA., LL.D. JOHN MACNAUGHTON, M.A.

Associate Professor:—A. J. Eaton, M.A., Ph.D.

Assistant Professors:—{ S. B. Slack, M.A.

Sessional Lecturer and Tutor (Royal Victoria College):—Elizabeth A. Hammond Irwin, M.A.

TUTOR:-R. K. NAYLOR, B.A.

The four years' course in Classics consists of a progressive study of the languages, literature, and history of the ancient Greeks and Romans. The work of each of the four years includes the reading of selected Greek and Latin authors, together with exercises in composition and translation. In the First and Second Years, prominence is given to the study of the languages, and to the cultivation of facility in reading and accuracy in translating. In the Third and Fourth Years, while the study of the languages is continued, the subject-matter and literary significance of the books are more fully dealt with, and the work includes continuous courses of lectures on history, literature, and kindred subjects, and the writing of essays on matters connected with the subjects of the lectures.

Students may be examined on the work prescribed for each class, even though it may not have been covered in the lectures.

Subjects are suggested for summer readings in connexion with the work of each class. Students are recommended to study these subjects in the summer vacation. An examination on the summer readings will be held in the first week of the session; and credit will be given for the results of this examination. Students who take the examination in Latin or Greek for Second Year Exhibitions will be exempted from the examination on summer readings in that subject.

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 be included among the subjects of the sessional examination.

#### Greek.

All students taking Greek are expected to provide themselves with a grammar, a Greek-English dictionary, and an Atlas of ancient geography. The following are recommended:—

Allen's Elementary Greek Grammar; Liddell and Scott's Greek Lexicon (Abridged, or Intermediate); Kiepert's Atlas Antiquus, or Putzger's Historical Atlas.

### BEGINNERS' COURSE.

1. Lectures, four hours a week.

The ordinary First Year course in Greek is suited for those students only who have already reached the matriculation standard in the subject. Students who have not reached the matriculation standard may take the Beginners' course in place of the ordinary First Year course as one of the qualifying courses of their First Year. Such students, in order to complete their First Year in Greek, are required to pass an examination on the work of the Beginners' course at the end of the session, and in addition, either to attend a tutorial class conducted during May and June, and pass an examination in June, or, if exempted by the Faculty from attendance at this class, to pass a supplemental examination in September.

Books required for 1908-9:—White's First Greek Book (Ginn & Co.); Macmillan's First Greek Reader, by Colson.

#### ORDINARY COURSES.

First Year.

2. Lectures, four hours a week.

For 1908-9:—Authors: Xenophon, Cyropædia, Book I (Shuckburgh, Pitt Press) chs. I to V; Lucian, Selections

(Bond and Walpole, Macmillan); Sidgwick, Scenes from Euripides, Electra (Longmans).

Composition: North and Hillard's Greek Prose Composition (Rivingtons).

TRANSLATION AT SIGHT: Peacock and Bell, Passages for Greek Translation (Macmillan, Elementary Classics).

GREEK HISTORY: 560 to 479 B.C. Book recommended, Cox's Greeks and Persians (Longmans Epoch Series), or Bury's History of Greece (Macmillan), chs. V to VII.

Additional work may be prescribed for advanced students. (See Extra Course below.)

#### Second Year.

3. Lectures, four hours a week.

For 1908-9:—Authors: Summer Reading.—Plato, Apologia (Adam, Pitt Press). Lectures.—Thucydides, Book I, chs. 89 to 119, and 125 to 138 (Marchant, Macmillan); Æschylus, Prometheus Vinctus (Prickard, Clarendon Press); Homer, Iliad XXIV (G. M. Edwards, Pitt Press).

Composition: North and Hillard's Greek Prose Composition (Rivingtons).

TRANSLATION AT SIGHT: Greek Unseens in Prose and Verse, Intermediate Section (Blackie & Son).

GREEK HISTORY: 479 to 403 B.C. Books recommended, Bury, History of Greece (Macmillan), chs. VIII to XI; Abbott, Pericles and the Golden Age of Athens (Putnam).

Advanced students will take the work of the ordinary course, together with additional work to be prescribed (See Extra Course below.)

#### Third and Fourth Years.

4. Lectures, four hours a week.

For 1908-9:—HISTORY AND LITERATURE: Greek History from 404 to 323 B. C. The lectures will include (1) a course of twelve hours on this period of history, and (2) a course of twelve hours on the history of Greek thought

with special reference to Ethics and Politics, or on some other subject connected with Greek life and thought.

AUTHORS: Summer Reading.—Sophocles, Trachiniæ (Pretor, Bell; or Campbell and Abbott, Clarendon Press). Lectures.—Plato, Protagoras (Adam, Pitt Press); Euripides, Iphigenia in Tauris (England, Macmillan) and Phænissæ (Wecklein, Teubner, Leipzig).

Composition: Passages to be selected.

TRANSLATION AT SIGHT: Fowler, Sportella (Longmans).

### HONOUR COURSES.

### Third and Fourth Years.

5. Honour students of the Third and Fourth Years will take the work of the ordinary course together with additional work, and will attend the ordinary lectures (except those from which they may be exempted under the regulation on page 97), together with four hours a week of additional lectures. They are recommended to study during the Summer Vacation the books set down under the head of Private Readings.

Additional Work for Honours (1908-9):—AUTHORS (Third and Fourth Years): Private Readings (Third and Fourth Years).—Isocrates, Panegyricus (Sandys, Longmans) and Sophocles, Electra; (Fourth Year only).—Sophocles, Philoctetes. Lectures.—Plato, Gorgias (Thompson, Bell); Demosthenes, The Peace, Chersonesus, and Philippics II and III (Sandys, Macmillan).

Comparative Philology: 43 lectures (see p. 120), which will be reckoned as forming part of the Third and Fourth Year Honours Course in Greek and Latin together. Book recommended, Edmonds, Introduction to Comparative Philology for Classical Students (Cambridge University Press).

Composition: Passages to be selected.

TRANSLATION AT SIGHT: Fox and Bromley, Models and Exercises in Unseen Translation (Clarendon Press).

(For Honour Courses in Classics, see also page 98).

#### EXTRA COURSE IN GREEK.

6. One hour a week: Thursday, 4.15 p.m.

Interpretation of a Greek Author. Text, one or both of the following: Sophocles, Electra (Jebb, smaller edition, Longmans); Sophocles, Philoctetes (Campbell and Abbott, Clarendon Press).

This Course is intended for Advanced and Honour Students of all years, graduates, teachers, and others.

### BRITISH SCHOOL OF CLASSICAL STUDIES IN ATHENS.

McGill University is a contributor to the support of this School, which affords facilities for archæological and classical investigation in Greece. Graduates in Arts of McGill University are accordingly entitled to special privileges and advantages as regards tuition in the School.

### Latin.

### ORDINARY COURSES.

All students taking Latin are expected to provide themselves with a grammar, a Latin-English dictionary, and an Atlas of Ancient Geography. The following are recommended: — Allen and Greenough's New Latin Grammar; Lewis' School Dictionary, or White's Junior Students' Latin-English Dictionary; Kiepert's Atlas Antiquus, or Putzger's Historical Atlas.

#### First Year.

1. Lectures, four hours a week.

For 1908-9:—Authors:—Caesar and Pompey in Greece, Selections from Caesar's Civil War, Book III (Atherton, Ginn & Co.); Cicero, de Senectute (Warman, Bell); Ovid, Metamorphoses, Book XI (Davies, Clarendon Press).

Students will be expected to learn by heart the following passage: Ovid, Met. XI, 106 to 156.

Composition: North and Hillard's Latin Prose Composition (Rivingtons).

TRANSLATION AT SIGHT: Rivington's Class Books of Latin Unseens (Smith), Books II and V.

ROMAN HISTORY: Outlines, to 133 B.C. Book recommended, Botsford, History of Rome (Macmillan), chs. I to VI.

Additional work will be prescribed for advanced students. (See Extra Courses below).

### Second Year.

# 2. Lectures, four hours a week.

For 1908-9:—Authors: Summer Reading.—Virgil, Bucolica (Sidgwick, Pitt Press), omitting II and III. Lectures.—Livy, Book VI (Stephenson, Pitt Press); Horace, Odes, Book IV (Gow, Pitt Press) and Epistles I, 1-7 (Wilkins, Macmillan); Virgil, Aeneid VIII (Sidgwick, Pitt Press).

Students will be expected to learn by heart the following passages: Horace, Odes IV, 4, 1. 37 to 76; Virgil, Aeneid VIII, 1. 560 to 584.

COMPOSITION: North and Hillard's Latin Prose Composition (Rivingtons).

TRANSLATION AT SIGHT: Alford's Latin Passages for Sight Translation (Macmillan).

ROMAN HISTORY: Outlines, from 133 B.C. to 337 A.D. Book recommended, Botsford, History of Rome (Macmillan), chs. VII to XII.

Advanced students will take the work of the Ordinary Course, together with additional work to be prescribed. (See Extra Courses below).

### Third and Fourth Years.

### 3. Lectures, four hours a week.

For 1908-9:—Roman History, from 31 B.C. to 180 A.D. Book recommended: Bury, History of the Roman Empire to the death of Marcus Aurelius (Murray). The lectures will include a course of twelve hours on this period of history, and a course of twelve hours on Roman Life as illustrated by the remains of Pompeii.

AUTHORS: Summer Reading.—Virgil, Aeneid VII (Sidgwick, Pitt Press). Lectures.—Tacitus, Annals, I and II (Furneaux, smaller edition, Clarendon Press); Juvenal (Duff, Pitt Press), Satires 1, 3, 8, 10, 13; Pliny, Select Letters (Westcott, Allyn and Bacon), omitting Books III, IV, VII, and VIII.

Composition: Bryans, Latin Prose based on Caesar (Mac-

millan), and passages to be selected.

Translation at Sight: Rivingtons' Class Books of Latin Unseens (ed. Smith), Book XII.

### HONOUR COURSES.

#### Third and Fourth Years.

4. Honour Students of the Third and Fourth Years will take the work of the ordinary course together with additional work, and will attend the ordinary lectures (except those from which they may be exempted under the regulation on p. 97), together with four hours a week of additional lectures. They are recommended to study during the summer vacation the books set down under the head of Private Readings.

Additional work for Honours (1908-9): AUTHORS (Third and Fourth Years):—Private Readings (Third and Fourth Years.—Quintilian, Book X (Peterson, Clarendon Press); and Martial, Select Epigrams (Bridge and Lake, Clarendon Press), Books X to XII; (Fourth Year only), Virgil, Aeneid II, and Georgics I, II.

Lectures: Roman Elegiac Poets (Catullus, Tibullus, Propertius), Selections; Tacitus, Annals XIV; Tacitus, Dialogus (Gudeman, smaller edition, Allyn and Bacon); Quintilian, Book I.

Comparative Philology: 48 lectures (see page 120) which will be reckoned as forming part of the Third and Fourth Year Honour Course in Latin and Greek together. Book recommended, Edmonds (Pitt Press).

Composition: Passages to be selected.

TRANSLATION AT SIGHT: Fox and Bromley, Models and Exercises in Unseen Translation (Clarendon Press).

(For Honour Courses in Classics see also page 98).

# EXTRA COURSES IN LATIN.

A. One hour a week: Monday, 4.15 p.m.

Composition and Translation at Sight. Text-books: Bradley's Arnold; and Fowler, Sportella (Longmans).

B. One hour a week: Tuesday, 4.15 p.m.

Interpretation of a Latin Author. Text-book: Gudeman, Latin Literature of the Empire (Harper), Vol. I (Prose).

Courses A and B are intended for advanced students of the First and Second Years; for students of the Third and Fourth Years who wish to continue the study of Latin without taking it as one of their qualifying subjects; and for graduates, teachers and others. Advanced students of the First and Second Years who attend Course A may, at the discretion of the Department, be exempted from attendance at the corresponding lectures of the ordinary course.

C. One hour a week: Wednesday, 4.15 p.m.

Interpretation of a Latin Author. Text, Virgil, Georgics I, II, III (Sidgwick, Pitt Press). Course C is intended for Advanced and Honour students of all years.

# BRITISH SCHOOL OF CLASSICAL STUDIES AT ROME.

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## Sanskrit.

# (Omitted in 1908-9.)

The two courses in Sanskrit are primarily intended for students who have passed the Second Year sessional examination, but permission may in certain other cases be obtained to attend the elementary course.

I. A. For beginners, the work mainly consisting in the mastering of the elements of Sanskrit Grammar with such

composition as tends to fix in the mind the knowledge thus acquired. Etymological references will be frequently made and comparisons suggested in order at once to familiarize the language and give it an educational value in spite of the elementary nature of the course. This course counts as a half-course qualifying for the Degree, and it is especially recommended to students attending the half-course in Comparative Philology.

Two hours a week.

I. B. For those students who have already passed through Course A or its equivalent in Sanskrit preparation; one hour per week is devoted to Lectures on Indian Literature, commencing with the Post Vedic Period. Two hours are devoted to reading selections; one hour to grammar and composition bearing especially on the texts read. Course B counts as one full course to the Final; courses A and B together, one and one-half, the student taking up Course B not being debarred thereby from repeating a course in another Department.

Four hours a week.

Books required:—Perry, Sanskrit Primer; Whitney's Sanskrit Grammar; Lanman's Sanskrit Reader (Ginn & Co.). For reference: Sanskrit Literature, A. A. Macdonell (Heinemann).

Summer Readings.—A course of summer readings will be suggested according to individual needs. During the months of May and June the lecturer will be glad to give his personal supervision to students of Sanskrit and is prepared to give lectures if due notice is given.

# Comparative Philology.

LECTURER: S. B. SLACK, M.A.

A. The first part of the course on Comparative Philology will deal with the following subjects: the history of the Science of Comparative Philology; the Indo-Germanic languages and their classification and relation to one another; the primitive home and culture of the so-called

Aryan people; the nature of compounds in Indo-Germanic; recent theories about Ablaut and its relation to the Indo-Germanic system of accentuation; the importance of Ablaut in explaining apparent irregularities of declension and conjugation; external Sandhi in the Indo-Germanic languages; and the influence of analogy and contamination in the formation of words. The lectures will then go on to discuss the various sounds of the primitive Indo-Germanic language, and the development of those sounds in the various languages of the Indo-Germanic family.

B. After Christmas, special attention will be devoted to the Comparative Grammar of Greek and Latin. This part of the course will be especially useful to Classical Honour students. At the same time students who desire to make a special study of Comparative Philology are recommended to take this course in addition to course A mentioned above.

Two hours a week.

# DEPARTMENT OF ENGLISH.

PROFESSOR:—CHAS. E. MOYSE, B.A., LL.D.
PROFESSOR OF COMPARATIVE LITERATURE AND ASSOCIATE
PROFESSOR OF ENGLISH:—P. T. LAFLEUR, M.A.
LECTURER:—G. W. LATHAM, B.A.
TUTOR AND LECTURER:—SUSAN E. CAMERON, M.A.,
Vice-Warden of the Royal Victoria College.

# ORDINARY COURSES.

# First Year.

I. A. English Composition. — The course will be of a practical character. Regular essays are required of all students. One hour a week.

I. B. ENGLISH LITERATURE.—The course will consist of a study of representative English writers. One hour a week.

I. C. HISTORY.—For course, see under History, page 147.

For affiliated colleges, in place of the above:—Halleck's History of English Literature (American Book Co.), pp. 1-261, with the following readings:—Chaucer, Prologue to

the Canterbury Tales; Spenser, Faerie Queene, Book I; Milton, Comus; European History (Adams, Macmillan), pp. 53-451. Regular practice and instruction in composition are strongly recommended.

### Second Year.

2. A. LITERATURE.—English Prose from Bacon to Burke. Three hours a week before Christmas, with the following special readings:—Bacon: Essays of Truth, of Unity in Religion, of Revenge, of Atheism, of Travel, of Friendship, of Plantations, of Building, of Studies; Browne: Religio Medici; Milton: Areopagitica; Defoe: A Journal of the Plague Year; Swift: A Tale of a Tub; Steele and Addison: The Tatler and the Spectator, passim; Goldsmith: The Citizen of the World. Craik's Prose Specimen and Chambers's Cyclopedia of English Literature (new ed.) may also be used.

English Prose in the Nineteenth Century. Three hours a week after Christmas. The course is a continuation of that followed in the first term and will include representative prose writers from Jeffrey to Leslie Stephen. Readings will be prescribed from the essays of Lamb, DeQuincey, Carlyle, Ruskin, Froude, Arnold and others. Prof. Lafleur and Miss Cameron.

2. B. Composition.—Continuation of I A.

Fortnightly essays will be required and will be taken into account in determining the standing of students at the end of the session. One hour per week.

This course is obligatory on all Second Year students.

For affiliated colleges: — Halleck's History of English Literature, pp. 305-480, and Nineteenth Century Literature (Cunliffe and Cameron, Copp, Clark Co.). Continued work in composition is strongly recommended.

#### Third Year.

3. A. English Literature.—Shakspere.—This course will begin with a review of the early history of the English

drama, and of the conditions which led to its development in the time of Elizabeth. The advances made by the earlier Elizabethan dramatists will be noted, and Shakspere's methods illustrated by a comparative study of A Midsummer Night's Dream, Romeo and Juliet, Henry V, As You Like It, Hamlet, King Lear, Macbeth, and The Tempest; the relation of these plays to their sources will also be considered. Students are recommended to read as many of Shakspere's plays as they can, and to give special attention to those mentioned above. Two hours a week. Dr. Moyse.

- 3. B. A course on Poetry and the Drama. England from 1660 to 1789, with special and detailed reference to changes in literary ideals and expression during the period discussed. The lectures will include poets, from Dryden to Crabbe; dramatists, from the writers of Heroic plays to Sheridan. Students will be called upon to pay special attention to the following works: Dryden, Absalom and Achitophel; Pope, Selections from the Essay on Man, and The Rape of the Lock; Thomson, The Seasons (one book); Cowper, The Task (one book); Crabbe, The Borough (four divisions); Dryden, Essay on Dramatic Poesy; Addison, Cato; Goldsmith, She Stoops to Conquer; Sheridan, The School for Scandal. Two hours a week. Prof. Lafleur.
- 3. C. English Composition. An advanced course on English Composition, including style, methods and principles of literary criticism, treated from the historical point of view, and an introduction to the comparative study of literature in accordance with the most recent results of contemporary thought and research. In connection with this course students will be examined in a course of prescribed readings. Essays at stated periods are required of all.

Books of reference and authorities:—Saintsbury's History of Criticism; Lessing, Sainte-Beuve, Brunetière, Arnold, Ruskin, Worsfold. One hour a week. Prof. Lafleur.

### Fourth Year.

4. A. English Literature. — 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, Matthew Arnold and Swinburne. Two hours a week.

The poems which have been selected for private reading will be announced at the commencement of the session. Dr. Moyse, Prof. Lafleur and Miss Cameron.

- 4. B. A general course on the history of English Prose Fiction from Richardson to the middle of the nineteenth century, treating of the various forms successively given to English novels during the period, and the influences that stimulated or otherwise affected such productions. While students are expected to show particular knowledge of English master-pieces in this kind, frequent reference to cognate works by continental writers will also demand some familiarity with contemporary European literature. Portions of the following works will be selected for detailed study and discussion: Richardson, Clarissa; Fielding, Amelia; Goldsmith, The Vicar of Wakefield; Godwin, Caleb Williams; Walpole, The Castle of Otranto; Thackeray, Henry Esmond. Books of reference: - Raleigh, The English Novel; Dunlop, History of Fiction; Cross, The Development of the English Novel. Two hours a week. Prof. Lafleur.
- 4. C. English Composition.—The statement respecting 3 C (page 123) indicates the method and character of this course, which is regarded as a continuation of the course in the Third Year.

## HONOUR COURSES.

## Third Year.

In addition to the ordinary work of the Third Year, Honour students will take course 5, together with courses 9, 10, 11, and 12.

5. English Language. Two hours a week. Sweet, Anglo-Saxon Reader, Extracts (all the Prose) XX, XXI, XXIII, XXVII; Wright, Primer of the Gothic Language, The Gospel of St. Mark (Clarendon Press); Wright, Old English Grammar (Oxford University Press). (The use of Braune, Gotische Grammatik is recommended). Dr. Moyse.

## Fourth Year.

Honour students in the Fourth Year will select Language or Literature.

Language Students will take the following special courses in addition to 4A, 4B, and 4C:—

6. Anglo-Saxon.—The whole of Béowulf will be read in class and illustrated by notes on origins, philology and textual emendations. Text-Book: Harrison and Sharp's Béowulf (Ginn). Students will read selected portions of other poems for examination. Anglo-Saxon prose will be studied mainly in the translation of Gregory's Pastoral Care and Ælfric's Homilies. Students will be guided in the examination of dialectal texts and referred to important articles in periodical literature dealing with that subject and also with the field of Anglo-Saxon generally.

Two hours per week. Dr. Moyse.

7. MIDDLE ENGLISH. — The course is intended to give a knowledge of dialectical English and to illustrate the changes the language has undergone. The texts given in Morris's Specimens of Early English, Part I, and Morris and Skeat's Specimens of Early English, Part II, may be regarded as the chief material for study. A list of books of reference and of important monographs will be given at

the commencement of the course. Two hours a week. Dr. Moyse.

8. Mœso-Gothic.—The course on Mœso-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 Mœso-Gothic and Anglo-Saxon. *Text-Books*: Wright, Primer of the Gothic language, The Gospel of St. Mark; Ulfilas (Heyne). Dr. Moyse.

Honour Students selecting Literature will take the following, in addition to the ordinary work of the Fourth Year, and one hour a week in Language (Anglo-Saxon):—Sweet, Anglo-Saxon Reader, Extracts (all the verse). Dr. Moyse.

9. CHAUCER. — A sketch of Chaucer's characteristics and literary influence. The following works are chosen for special study:—Canterbury Tales: Prologue, Knightes Tale, Nonne Prestes Tale; Parlement of Foules; Hous of Fame [Skeat's Chaucer]; Piers the Plowman (Clarendon Press). Works to be consulted or read: Pollard's Chaucer Primer (Macmillan); Lounsbury, Studies in Chaucer; Jusserant's English Wayfaring Life; Snell, The Fourteenth Century. One hour a week. Mr. Latham.

10. Prose Writers before Dryden.—The main object of the course will be to discuss the chief literary influences visible in the Pre-Restoration writers of English prose and to examine characteristics of style. The subject will be treated chronologically. As the course is largely interpretative and critical, facts of biography will be used only when they illustrate points of moment.

Students will read the following works for examination: More, Utopia (Arber's reprint, or Temple Edition); Sidney, Apologie for Poetry (Ed. Cook, Ginn & Co. or Shuckburgh, Cambridge University Press); Lodge, Rosalynd (Newnes Caxton Series); Bacon, New Atlantis; Earle, Microcosmographie (Temple Ed.); Milton, Areopagitica (Ed. Hales, Clarendon Press).

Two hours a week. Miss Cameron.

II. Spenser and Milton.—This course is intended to show the literary relations of Spenser and Milton to their time, and to treat with special prominence the following works:—Spenser: The Shepheard's Calendar, Mother Hubberd's Tale, Colin Clout's Come Home Again, Faerie Queene (Selections), Fowre Hymnes. Milton: Shorter Poems, Paradise Lost (Selections), Samson Agonistes.

One hour a week. Miss Cameron.

of lectures setting forth the chief tendencies manifested in contemporary criticism, and here applied to the examination of important literary relations between the Continent of Europe and England through the works of Montaigne, Molière, Voltaire, LeSage, etc.; with ample reference to the literatures of Germany, Spain, and Italy, in corresponding manner. Two hours a week. Prof. Lafleur.

13. Comparative Literature (1909-10). — A course of lectures on the influence of English literature upon the continent of Europe, chiefly during the eighteenth and nineteenth centuries. The treatment discusses mainly the historical development of ideas, but examines also corresponding modifications regarding literary method and form.

Voltaire, Letters concerning the English Nation; Elton, The Augustan Age; Texte, Jean Jacques Rousseau and the Cosmopolitan Spirit in Literature (tr. Matthews); Brunetière, L'Evolution des Genres. Two hours a week. Prof. Lafleur.

14. English Prose from Dryden to Burke (1909-10). Details and readings to be announced at the beginning of the session. Prof. Lafleur.

15. AMERICAN AND CANADIAN LITERATURE (1909-10). A historical and critical outline of English Literature in the New World. Two hours a week. Miss Cameron.

16. TENNYSON (Continuation) and MINOR POETS of the NINETEENTH CENTURY. One hour a week.

For examination: Maud and the Idylls of the King. Readings from minor poets will be announced at the beginning of the session. Dr. Moyse.

Any of the above Honour Courses may be taken as an ordinary course with the approval of the Faculty, provided that the time-table allows of such substitution.

For Honour Courses in English see also pages 98 and 99.

### DEPARTMENT OF MODERN LANGUAGES.

PROFESSOR:—HERMANN WALTER, M.A., PH.D.
ASSOCIATE PROFESSOR:—LEIGH R. GREGOR, B.A., PH.D.
ASSISTANT PROFESSOR:—J. L. MORIN, M.A.
ASSISTANT PROFESSOR AND TUTOR (ROYAL VICTORIA COLLEGE):—

LECTURER: -E. T. LAMBERT, B.A.

### A.-French.

Owing to the position which this University occupies in the midst of a very large French-speaking population, there is a permanent demand for courses of a practical, conversational character; for the same reason the Department profits by the co-operation of French church services, French family life, French newspapers, French theatres, French literary clubs, and public lecture courses in the French language.

In drawing up the following dual courses endeavours have been made to meet the special needs of the professional men of the Province of Quebec (every student being given the opportunity to learn to speak French), and also to provide for the maintenance of scientific methods. In Courses 1 and 3, the study of grammar and literature is carried on in accordance with the usual academic traditions, the French language being, however, largely used in class instruction. In Courses 2 and 4, the method of teaching is of a more practical character; the French language only is used, and the texts prescribed are made the subject of conversation, analysis, résumés, etc. In the Third and

Fourth Years all lectures are given and all studies carried on in French.

Honours may be taken in French and German together or in Latin and French or in Latin and German, as well as in English and French or in English and German. See pages 98, 99 and 102.

## ORDINARY COURSES.

## First Year.

I. Vreeland & Koren, French Syntax and Composition (Holt); Sandeau, Mlle. de la Seiglière (Holt); Super, Histoire de France (Holt).

2. Daudet, Tartarin (A. B. Co.); Dumas, Napoléon (Macmillan), including translation and exercises; Pailleron, Le monde où l'on s'ennuie (Jenkins); Milhau, Choix de Poésies (Renouf).

The examinations for the students of Affiliated Colleges will include the whole of courses 1 and 2. Equivalents for the oral work and the oral examination will be stated on application.

Four hours weekly, two for each course.

An Advanced Section will be formed.

# Second Year.

SUMMER READINGS for students entering on their Second Year:—Corneille, Cinna (Holt); Daudet, Le Petit Chose (Heath).

The examination on Summer Readings will be held in the first week of the session.

# SESSIONAL LECTURES:

3. Borel, Grammaire Française (Holt and Co.); Corneille, Le Cid (Holt); Vigny, Servitude et Grandeur Militaires; Elementary Historical French Grammar.

4. Lacomblée, Histoire de la Littérature Française; Molière, L'Avare (Ginn); A. France, Le Livre de mon Ami (Holt); Milhau, Choix de Poésies (Renouf).

The examination for the students of Affiliated Colleges will include the whole of Courses 3 and 4. Equivalents for

the oral work and the oral examination will be stated on application.

Four hours weekly, two for each course.

For students in the Advanced Course an additional hour will be provided for the purpose of further study.

## Third and Fourth Years.

The courses will consist mainly in the study of French Literature and Advanced Prose Composition.

SUMMER READINGS for students entering on the Third or Fourth Year:—Racine, Phèdre (Heath); Hugo, Quatre-vingt-treize (Ginn).

The examination on Summer Readings will be held in the first week of the session.

SESSIONAL LECTURES:

5. For 1908-1909: — Literature up to the end of the XVIIth Century. Corneille, Polyeucte; Racine, Les Plaideurs, Iphigénie; Molière, Le Misanthrope; Boileau, Choix d'Epîtres et de Satires; La Bruyère, Selections; Madame de la Fayette, La Princesse de Clève; Canat, Histoire de la Littérature Française (Delaplane).

Prose Composition:—Spiers, Graduated Course of Translation into French Prose (Simpkin, Marshall and Co.,

London).

6. For 1909-1910: — Literature in the XVIIIth and XIXth Centuries. Lesage, Gil Blas (Heath and Co.); Marivaux, Le Jeu de l'Amour et du Hasard; J. J. Rousseau, Selections; Voltaire, Mérope; Victor Hugo, Ruy Blas; Musset, Selections (Ginn and Co.); Balzac, Eugénie Grandet; Rostand, Princesse Lointaine.

Prose Composition:—Spiers, Graduated Course of Translation into French Prose (Simpkin, Marshall and Co., London).

N.B.—In order to be admitted to the Third Year French a student must understand French well enough to take lectures delivered in French.

Four hours weekly.

## HONOUR COURSES.

# Third and Fourth Years.

The work of the Honour classes in French 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. The first and second sections are taken up in alternate years, the third annually. Students of the Third and Fourth Years take lectures together. In order to obtain Honours, candidates must be able to speak French fluently.

- 7. HISTORY OF LITERATURE (1908-1909):—(a) Moralistes français; (b) Voltaire et Son Temps.
- 8. Medlæval French Literature and Philology (1909-1910):—Students will use Schwan's Altfranzösische Grammatik (revised by Behrens), Darmesteter's Cours de Grammaire Historique, and Bartsch, Chrestomathie de l'Ancien Français.

Three hours weekly.

9. Composition. One hour weekly.

Students will take in their Third Year as part of their Honour Course in Modern Languages that part of the Course on Comparative Philology which deals with the general principles of linguistic development.

N.B.—Before entering on their Fourth Year Course, Honour Students are expected to have read the following:
—Corneille, Le Cid, Horace, Cinna, Polyeucte; Racine,—Andromaque, Britannicus, Phèdre, Athalie; Molière,—Ecole des Femmes, Misanthrope, Tartuffe, Le Bourgeois Gentilhomme, Les Femmes Savantes; Boileau, — L'Art Poétique; except when any of these texts are part of the readings prescribed for the ordinary course in the Fourth Year.

(For Honour Courses in Modern Languages, see also page 99).

### B.—German.

### ORDINARY COURSES.

# Beginners' Course.

1. The Joynes-Meissner German Grammar (Heath and Co.); Meissner, Aus deutschen Landen (Holt); Baumbach, Das Habichtsfräulein (Heath); Schiller, Maria Stuart (Holt and Co.).

A tutorial class conducted during May and June enables students to overtake work not completed by the close of the winter session. Students intending to take German in their Second Year are required to take this class, or if exempted by the Faculty, to take a supplemental examination in September.

Four hours weekly.

Summer Reading (obligatory) for students of the Beginners' Class intending to take German in their Second Year:—Schiller, Die Piccolomini (Holt); Riehl, Die vierzehn Nothelfer (A. B. Co.).

### First Year.

2. The Joynes-Meissner German Grammar (Heath and Co.); Horning, German Composition; Two German Tales (Holt); Freytag, Die Journalisten (Ginn); Schiller, Maria Stuart (Holt and Co.); German and French Poems (Holt and Co.).

Four hours weekly.

The examination for the students of Affiliated Colleges will, in addition to the above, include equivalents for the oral examination, which will be stated on application.

### Second Year.

Summer Readings for students entering on their Second Year:—Schiller, Die Piccolomini (Holt); Riehl, Die vierzehn Nothelfer (A. B. Co.).

The examination on Summer Readings will be held in the first week of the session.

3. Sessional Lectures.—The Joynes-Meissner German Grammar; Horning, German Composition; Schiller, Die Jungfrau von Orleans (Holt); Goethe, Egmont (Ginn); Freytag, Aus dem Jahrhundert des Grossen Krieges (Heath); Keller, Bilder aus der Deutschen Literatur (American Book Co.), edition 1905.

Four hours weekly.

For students in the Advanced Course an additional hour will be provided for the purpose of further study.

The examination for the students of Affiliated Colleges will, in addition to the above, include equivalents for the oral examination, which will be stated on application.

# Third and Fourth Years.

SUMMER READINGS for students entering on their Third or Fourth Year: — Grillparzer, Der Traum ein Leben (Heath); Stifter, Das Heidedorf (Am. Book Co.).

The examination on Summer Readings will be held in the first week of the Session

4. (For 1908-9): — Lessing, Emilia Galotti; Schiller, Jugenddramen; Goethe, Tasso; J. P. Richter, Selections (A. B. Co.); Grillparzer, Sapho (Ginn).

History of German Literature 1750-1856.

Prose Composition.

5. (For 1909-1910):—Lessing, Dramaturgie (Selections); Lessing, Nathan (Am. Book Co.); Goethe, Iphigenie (Pitt Press); Schiller, Wallenstein's Tod; Keller, Legenden (Holt and Co.).

Translation of prose passages from English into German; History of German Literature (up to 1750).

Four hours weekly.

# HONOUR COURSES.

# Third and Fourth Years.

The German Language alone is used in class instruction, and in order to obtain Honours, candidates must be able to speak German fluently.

Medieval Literature and Philology is taken up in alternate years.

6. Mediæval Literature and Philology. For 1908-1909:

—A general outline of the development of the German Language and a special study of the Middle High German

period, its language and literature.

The following books will be used:—Bachmann, Mittel-hochdeutsches Lesebuch (Faesi and Beer, Zurich); F. Kaufmann, Deutsche Grammatik; Behaghel, Die Deutsche Sprache; Wright, Middle High German Primer (Clarendon Press).

Three hours weekly.

7. HISTORY OF GERMAN LITERATURE:—The Classical Period of German Literature (omitting Goethe).

One hour weekly.

8. Composition: — Perini, Extracts in English Prose (Hachette).

Students will take as part of their Honour Course in Modern Languages that part of the Course on Comparative Philology which deals with the general principles of linguistic development.

N.B.—Before entering on their Fourth Year course, Honour students are expected to have read the following:—Lessing, — Minna von Barnhelm or Nathan der Weise, Emilia Galotti; Schiller, — Wilhelm Tell, Maria Stuart, Jungfrau von Orleans, Wallenstein, Ballads; Gæthe,—Gætz von Berlichingen, Egmont, Hermann und Dorothea, Faust I, Poems; except when any of these texts are part of the readings prescribed for the ordinary course in the Fourth Year.

(For Honour Courses in Modern Languages, see also page 99).

### Italian.

LECTURER: - LEIGH R. GREGOR, B.A., PH.D.

For 1909-1910:-

## Third or Fourth Year.

The following course, given in alternate years, is intended for students who have passed the sessional examination of the Second Year. Partial students who wish to join the class must give satisfactory evidence of their ability to keep up with the undergraduates.

Grandgent, Italian Grammar (Heath & Co.); Grandgent, Italian Composition (Heath & Co.); De Amicis, Selections from Il Cuore; Manzoni, Selections from I Promessi Sposi; selections from the Divina Commedia; Notes on some of the great names of Italian Literature.

N.B.—The above course may be given in the session 1908-9, if a sufficient number of students present themselves.

# Spanish.

LECTURER:-J. L. MORIN, M.A.

First Year.

Hill and Ford, Spanish Grammar (Heath); Matzke, Spanish Readings (Heath); Valera, El Pajero verde (Ginn); Moratin, El si de las ninas (Ginn); Galdos, Doña Perfecta (Ginn).

Four hours weekly.

# DEPARTMENT OF ORIENTAL (SEMITIC) LANGUAGES AND LITERATURE,

Lecturer:—Rev. C. Alexander Brodie Brockwell, B.A., (Oxon.), M.A. (Kings, N.S.).

The courses are constructed with a view to providing students with a throrough knowledge of a limited portion of the Semitic field and a general acquaintance with the entire range of the same, including some of the leading contributions of the Semitic world to Western thought and culture; with a view, too, to enabling students who have taken high honours to pursue, unaided, in much fuller

detail, a number of the more interesting and important questions arising out of Semitic literature and civilization. In constructing all the courses the needs of theological students have been carefully considered.

In the Ordinary course, students who have taken the Hebrew of the Second and Third Years can continue the same in the Fourth Year or substitute for it either Arabic or Aramaic with Syriac, subject to the condition mentioned below.

For Honours, students have a choice of one of four courses: they can take either I, the Hebrew of the Combined Greek and Hebrew course (see page 99); or one only of the three following full Semitic Courses, II to IV, to which they will be required to devote the whole of their time. In II, Hebrew, in III, Arabic, and in IV, Aramaic (including Syriac) forms the main study. Each of these full Semitic Honour Courses includes at least three subjects: in the first place an exact study of the principal language by which the course in question is designated, secondly, a less detailed study of one additional language, and thirdly, some knowledge of the history and literature connected with the principal language; and in addition to these three subjects, a fourth or special subject is strongly recommended for those who seek First Class Honours.

A knowledge of Comparative Philology is required in each of the Honour Courses II, III and IV.

Pointing in the different systems, sight translation and the writing of proses, grammar papers and essays form a marked feature of every course.

N.B. — Permission to take Arabic or Aramaic in the Ordinary course of the Fourth Year, and in either of the Honour courses III or IV, will depend upon the possibility of arranging the time-table satisfactorily.

## ORDINARY COURSE.

A. Hebrew Texts: — (1) Genesis I-XI; I Kings XVII-XXI; Psalms I-X.

(2) Genesis XLIX; Exodus XIV-XV; Deuteronomy V-X, XXXII, XXXIII; Judges IV and V; Jeremiah XXXI; and Proverbs I-IX.

(3) Jeremiah X, II; Ezra IV, 8; VI, 18 and VII, 12-26); Esther; The Mishna Tract; Pirke Abôth; and Kimchi's Commentary on the Psalms, I-X.

- B. Semitic History (brief outlines of) with reference to recently discovered documents.
- C. Textual and Literary Criticism with special reference to the Biblical texts prescribed in A (1))(2) and (3).
- D. ARABIC:—The Arabic V.S. of Genesis I-XI; the Kur'an, Suras I, LXI, LXXI, and CXIV; and Socin's Arabic Grammar, pp. 35 to 47.
- E. Aramaic and Syriac: The Aramaic portions of Daniel; Genesis I-IV and LXIX, and Exodus XV, and Deuteronomy XXXII-XXXIV and Judges V in the Chrestomathia Targumica by Adelbertus Merx; Gismondi's Linguæ Syriacæ Grammatica, pp. 7-18; Sermon on Mount (Mt. 5-7) in the Peshitta v. s. and the Syriac sentences in the N. T.

# Lectures.

SECOND YEAR:—A (1) and B.

THIRD YEAR:—A (2) and B.

FOURTH YEAR: -A (3) and C, or instead either D, or E.

HONOUR COURSES.

# I. Hebrew and Greek.

[For Greek, see page 114.]

The Hebrew subjects prescribed are the same as those in 1 and 2 of the full Hebrew Honour Course (No. II, below), with the addition of the following texts:—Jonah, Job XIX, Isaiah XLII, 1-4, XLIX, 1-6, L, 4-9, LII, 13, LIII, 12.

### II. HEBREW.

I. Hebrew Texts:—(a) Poetry:—Genesis XLIX; Exodus XV; Numbers XXI, XXIII, XXIV; Deuteronomy XXXII, Isaiah V, 1-7, XXXVIII, 9-21; Psalms I-X; Proverbs XXXI; Job XXXVIII-XLI.

(b) Prose:— Genesis I-XI; Exodus XIV, XX-XXI, XXXIV, 14-28; Deuteronomy V-VI, XVI; Judges IV; I King's XVII-XXI; Jeremiah X, 11, and XXXI; Ezekiel VIII; Obadiah; Ezra IV, 8 to VI, 18, and VII, 12-26; Esther, and Rashi's Commentary on Deuteronomy XXXII.

- 2. History:—Literary criticism and chronology of the above mentioned texts.
- 3. Additional Language:—One only of the following:—
  - (1) Arabic:—The Arabic v. s. of Genesis I-XI; the Kuran, Suras I LIII, LVII, LXI, LXXI and CXIV; Muallakât, poem III; and pages 35 to 47 of Socin's Arabic Grammar and part of No. 30 in the Letters of Abu'Lala.
  - (2) Aramaic:— The ordinary course E with the addition of Jonah and II Samuel XXIII in Merx, and pages 18 to 25 in Gismondi.
  - (3) Phanician, including Punic and Neo-Punic:—All the inscriptions in this language given in G. A. Cooke's North Semitic Inscriptions.
  - (4) Ethiopic: Prætorius, pp. 31-45 and Du Chaine, pp. 228-244.
- 4. Special Subject:—One of the following:—
  - (1) Semitic Epigraphy, including the history of the alphabet, and all the inscriptions in Phœnician, Punic, Neo-Punic, Moabitish, Ancient Aramaic, Nabatæan, Palmyrene and Hebrew in G. A. Cooke's North Semitic Inscriptions.

- (2) Hebrew and Phanician contributions to Western Civilization and culture.
  - (3) Hebrew Poetry.
  - (4) The History of the Old Testament Canon.
- (5) History of Jewish Literature from A.D. 70 to 1500.
- (6) Primitive religious and social ideals, and folklore especially of the Northern and North Eastern Semites.

# III. ARABIC.

- I. Arabic Texts: Kur'an, Suras I, 50-57, 61, 64, 71, 80-113; Muallakât, poems I, III, V; the letters of Abu-'Lala, Nos. 2, 30; and the three following in the Semitic Study Series, i.e., Sahin Al-Buhari, pp. 1-10; Annals of Tabari, pp. 1-10, and Prolegomena of Ibn Khaldûn, pp. 1-10.
- 2. History:—General history of the Caliphate, with special reference to the Caliphs Abû Bakr, Omar, Othmân, Aly, Mansûr and Mustaasim.
- 3. Additional Language:—One only of the following:—
  - (1) Hebrew as in the Ordinary Course A (1) and (2).
  - (2) Aramaic as in the Ordinary Course E.
  - (3) Phanician as in Hebrew Honour Course II.
  - (4) Ethiopic as in Hebrew Honour Course II.
- 4. Special Subject:—One only of the following:—
  - (1) Semitic Epigraphy. See II Hebrew Honour Course.
  - (2) Arabian contributions to Western civilization and culture.
    - (3) Arabic Poetry.
  - (4) The Structure, contents and Ethics of the Kur'an.
    - (5) History of Arabic Literature.
  - (6) Primitive religious and social ideals, and folk-lore, especially of the Southern Semites.

### IV. ARAMAIC.

- I. ARAMAIC AND SYRIAC TEXTS:—As in Ordinary Course E, and II Hebrew Honour Course 3, (2), with addition of Berachoth in Lederer's selection from the Babylonian Talmud; the Syriac Hymn of the Soul, and pp. 1-20 of the Julian Romance in the Semitic Study Series.
- 2. History:—The Transition from Classical Hebrew to Aramaic, with special reference to the genesis of the Midrashim and Targumim.
- 3. Additional Language:—One only of the following:—
  - (1) Arabic:—As in Ordinary Course D, with the addition of Suras 53, 57, and 71.
  - (2) Hebrew:—As in Ordinary Course A (2) and (3).
    - (3) Phanician:—As in II Hebrew Honour Course.
    - (4) Ethiopic:—As in II Hebrew Honour Course.
- L SPECIAL SUBJECT:—One only of the following:—

Semitic Epigraphy, as in II Hebrew Honour Course with special reference to Aramaic.

- (2) The influence of the Aramaeans and Syrians on Western Civilization and Culture.
  - (3) Syriac Poetry.
- (4) The Structure, contents and Ethics of the Talmuds.
  - (5) History of Syriac Literature.
  - (6) Hebrew and Aramaic Papyri.

For Honour Courses in Semitic Languages, see also page 99.

## DEPARTMENT OF PHILOSOPHY.

Professors:—{ W. Caldwell, M.A., D.Sc. A. E. Taylor, M.A.

Assistant Professor of Psychology and Lecturer in Philosophy:—
J. W. A. Hickson, M.A., Ph.D.

The courses in this Department are designed to meet the wants of students in the Faculty of Arts, of students in the professional schools and of partial students.

In addition to regular and continuation courses short sets of

study or lecture-courses are given from time to time. See e.g. Course 14, or Courses 6A, 6B.

In all the ordinary courses such topics as the subject of Scientific Method, the relation of Ethics to legal and social questions, the relations of Psychology and Philosophy to Education, etc., are definitely kept in view.

Attention is drawn to the fact that it is now possible for students (graduate and others) to specialise in Psychology as well as in Mental and Moral Philosophy.

## ORDINARY COURSES.

### Second Year.

IA. Psychology. Text-book:—James, Psychology, Briefer Course, pp. 1-279, omitting chs. 7, 14, 15.

This course will include a general account of sensation, with special illustration by reference to the sensations which are of pre-eminent importance for the purposes of practical life (sight, hearing, contact, movement). This will be followed by a general outline sketch of the functions of the central nervous system and particularly of the higher brain-centres, as the physiological correlates of mental activity. The nature of habit and its importance for mental life will next be studied, and will be followed by an examination of the leading features of the concrete stream of actual mental life and the principal constituents of the self. The course will conclude with a study of attention and association. Occasional essays will be prescribed. Three hours weekly, throughout the first term of the Session.

IB. Formal Logic.—In the second term a course in Formal Logic and Fallacies. Text-book: S. H. Mellone, Introductory Text-Book of Logic (second edition), chs. 1-3, 4 (§§ 1-4), 5-7 (omitting ch. 5, part IV), 10. The course will embrace an outline of the general formal principles of valid reasoning, with frequent illustrations of their application to actual discussion. This will be followed by more detailed examination of the types of fallacious reasoning most commonly per-

petrated in literature and daily life. Weekly exercises will be set and will form an important feature of the course. Three hours weekly.

### Third or Fourth Year.

2A. Moral Philosophy.—In the first term a course on the outlines of Ethical Theory. The following topics — among others—will be treated of by means of short sets of lectures, study-notes, private reading, exercises, discussion, etc.:— the phenomena of the moral life in the individual and in the race; the postulates of ethical science; the relations of Ethics to the sciences, to law, politics, education, etc.; theories of conscience and the moral standard; ancient and modern conceptions of Moral Philosophy; the ethics of idealism and the ethics of evolution; the theory of moral progress.

2B. In the second term a course on the problems of Social Philosophy and Applied Ethics.

Short sets of lectures will be given upon the following topics: Ethics and the sociological movement of recent years; biological and psychological theories of society and of social progress; the ethics of the social questions; the duties and the virtues; the unity of the moral life; moral pathology; moral training; the ethical problem of the present.

Some modern manual will be used for purposes of classroom discussion, but the student will constantly be referred to the literature of the subjects treated, and to sources of independent investigation.

The course will be varied from year to year according to the needs of the subject and those of the students.

Four hours per week.

For a continuation course, see either 5A, 5B, or 9 with 7 or 12.

3A. General Course in Psychology, analytic and experimental. — This course is a continuation of Course 1A. An attempt will be made to indicate the most important topics of modern psychological inquiry and to illustrate and test by experiment some of the results reached by leading investi-

gators. Among the problems to be discussed will be:—Association, perception, imagination, illusions, memory, perception of time, perception of space and of external reality, instinct, the emotions and will. The course will end with a discussion of the problem of the relation of mind and body in recent Psychology.

3B. (Continued throughout the session.)

Text-Books: — James, Principles of Psychology; Stout, Manual of Psychology.

Books of Reference:— Ebbinghaus, Grundzüge der Psychologie; Murray, Introduction to Psychology; Strong, Why the Mind has a Body; Titchener, Manual of Experimental Psychology.

Four hours a week throughout the session.

4A. The logic of Induction. The pre-suppositions and methods of natural science; the relation of the historical and moral to the natural sciences.

4B. Introduction to the Theory of Knowledge. Relation of the theory of knowledge to logic, metaphysics and psychology. Typical modern views of the nature of knowledge and truth. Analysis of the judgment. The pre-suppositions of inference.

Four hours a week throughout the session. May be given in alternate years with course 5.

For continuation see courses II and I4.

Books of Reference: — Bosanquet, Logic; Bradley, Principles of Logic; Mill, System of Logic; Jevons, Principles of Science; Hobhouse, Theory of Knowledge; Lotze, Logic; Sigwart, Logic; Venn, Empirical Logic; Taylor, Elements of Metaphysics.

# Fourth Year.

5A. History of Modern Philosophy.

First Term: From the Renaissance to Kant.

Four hours a week.

5B. Second Term:—From Kant to the Present Time.

Books of Reference: — Falckenberg's History of Modern Philosophy; Höffding's History of Modern Philosophy (2 vols., translated by Meyer); Adamson's Development of Modern Philosophy.

Four hours a week.

Here and in other courses students are requested to procure some of the cheap texts in the *Open Court Pub. Co.'s* series of *Philosophical Classics*.

## ADVANCED COURSES.

### Second Year.

6A. Introduction to Philosophy.—Study of some easy pieces of typical philosophical literature such as Descartes' Discourse on Method, Berkeley's Dialogues, or Plato's Phædo, along with lectures upon the nature of philosophy and the philosophical sciences. In connection with the latter use may be made—for the purposes of reading and discussion—of some one of the many "Introductions to Philosophy" that have appeared in recent years.

One hour a week throughout the session.

6B. An introduction to experimental Psychology. — This course is supplementary to 1A. Its object is to make the student acquainted with some simple psycho-physical experiments relating to the production of sensations, to reaction time, Weber's Law and other topics discussed in the lectures of the Second Year. Use will be made of Judd's Laboratory Manual.

One hour a week throughout the session.

The selection of this course is urgently recommended by the Department for all students contemplating either Honours in Philosophy or a general knowledge of philosophy in relation to modern thought.

## HONOUR COURSES.

### Third Year.

Honour students will take the ordinary course of the Fourth Year (5A and 5B) and, in addition, the following:—

7. A course in Greek Philosophy. 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.

Pre-Socratic Physicists in Ionia, Italy and Sicily. The Athenian Period, and the rise of systematic Logic, Ethics and Psychology: Socrates, Plato, Aristotle. General diffusion of Philosophy over ancient life as a rule of conduct: Stoicism, Epicureanism, Scepticism.

Books of Reference:—Zeller, History of Greek Philosophy; Windelband, History of Ancient Philosophy; Burnet, Early Greek Philosophy; Ritter and Preller, Historia Philosophiæ Græcæ; E. Wallace, Outlines of the Philosophy of Aristotle; Taylor, Aristotle on his Predecessors.

Two hours weekly.

8. Plato and Aristotle. In this course it is expected that some work of each of these thinkers will be read.

Books prescribed for 1907-08:—Plato, Phædo; Aristotle, Metaphysics, Bk. A. Two hours weekly.

Courses 7 and 8 may be given in alternate years.

- 9. The Philosophy of Kant.—Lectures, study notes, and discussions of the writings of Kant, with a study of Kant's influence upon philosophy. The various translations of Kant or of portions of Kant's writings (Watson's Selections e.g.) will be used, with use of the German text where possible. Two hours weekly throughout the session. May be taken with 7 or 8 to make a four-hour course.
- 10. Psychological Seminary.—During the session of 1908-9 the problem of spatial perception with experiments will form the subject of investigation.

One hour weekly.

Fourth Year.

II. Different types of Philosophical Theory. Monism and Pluralism; Realism and Idealism; Materialism and Mentalism; Intellectualism, Voluntarism, Pragmatism.

The student will be expected to make a careful study of some such work as Sidgwick's *Philosophy: its Scope and Relation*, and to write an essay on some selected topic connected with the course. One hour a week.

12. Problems of Comparative Psychology, including some chapters of Child Psychology. Students undertaking this course must have already taken Psychology 3A, 3B, or show that they have done its equivalent. Two hours weekly.

Books of Reference: — Hobhouse, Mind in Evolution; Romanes, Mental Evolution in Animals; Lloyd Morgan, Comparative Psychology, Animal Behaviour, Habit and Instinct; Preyer, Die Seele des Kindes; Baldwin, Mental Development in Child and Race.

13. Advanced Moral Philosophy. — Designed to meet the wants of students who have taken course 2, or who are otherwise competent to undertake the study of the more important works (Classical or Modern) upon the theory of morals, or to pursue the study of special questions in Ethics and Social Philosophy.

As a rule a careful study will be undertaken of the following works:—Aristotle's Ethics, Green's Prolegomena to Ethics, Sidgwick's Methods of Ethics, along with prescribed portions of writers like Spencer, Stephen, Martineau, and others. Special topics, however, (both in Theoretical and Applied Ethics) will also be prescribed for investigation and discussion, and the course will be varied from year to year to suit the needs and the capacities of students. It may occasionally be applied to suit the needs of advanced students in other departments, such as Classical or Modern Literature, Political Economy, Biology, History. Two hours weekly throughout the session.

14. Topics in Philosophy.—Independent and detailed study of such questions in philosophical science as may, from time to time, seem to require specialised treatment. Such topics as the following may be considered:

Greek thought from Epicurus to Proclus; Systematic thinkers of the Seventeenth Century; the English Utilitarians; some Cosmological Problems of the present time; the Philosophy of Evolution; Modern Symbolic Logic. Two hours a week.

Graduate study and Seminary Work may be undertaken in connection with any of the more advanced of the above courses, e.g. Nos. 9, 10, 11, 12, 13, 14. All such work, however, will as a rule depend upon the previous training of the student, and upon his capacity for original research under the personal guidance of members of the Department.

Fourth year students are expected to present an essay or thesis to be approved by the Department.

(For Honour Courses in Philosophy see also page 99).

#### DEPARTMENT OF HISTORY.

Professor:—Charles W. Colby, M.A., Ph.D. Associate Professor:—

LECTURER:—CHARLES E. FRYER, M.A., PH.D.
TUTOR:—ETHEL HURLBATT, M.A., T.C.D., Warden of the Royal
Victoria College.

#### ORDINARY COURSES.

### First Year.

1. Great Men and Great Movements.

In this course no attempt will be made to present an epitome of fact. The aim of the lectures is rather to stimulate the beginner's interest in historical reading through an appeal to biography and the chief episodes in the progress of European thought. The sessional examination will be based on the following texts:—

Butcher, "What We Owe to Greece"; Thucydides, The Funeral Speech of Pericles, Book II, sections 35-46, Jowett's translation; Plutarch, Life of Timoleon, Clough's translation;

Mommsen, Character Sketch of Julius Cæsar, History of Rome; Matthew Arnold, Essay on Marcus Aurelius; Freeman, Ancient Greece and Mediæval Italy; Einhard, Life of Charlemagne, Glaister's translation; Macaulay's Essays on "Ranke's History of the Popes," and "Clive"; Macaulay's State of England in 1685, History of England, chapter III; Parkman, The Heroes of the Long Sault; Stevenson's Essay on the English Admirals.

The results of the examination will be counted under the head of English, and at intervals students will be required to present short essays on historical subjects. A few illustrated lectures may also be given if suitable hours can be found.

One hour a week.

### Second Year.

2. The History of England, 1603-1688. Two hours a week.

## Third or Fourth Year.

3. The History of Europe from the accession of Augustus to the death of Luther, B.C. 27—A.D. 1546.

In this course special attention will be given to institutions and movements. Topics for investigation will be assigned, and students will write at least one thesis during the year. Readings to accompany each lecture are assigned in the syllabus for the course.

Four hours a week.

# HONOUR COURSES.

# Third and Fourth Years.

4. The Renascence. Two hours a week.

5. The Early Reformation. Two hours a week. (Omitted in 1908-1909.)

6. The Catholic Revival and the Thirty Years' War. Two hours a week. (Omitted in 1908-1909.)

7. The History of England since 1784. Four hours a week. (Omitted in 1908-1909.)

- 8. The Political and Constitutional History of Europe since 1789. Four hours a week.
- 9. Canada, Government and Public Policy. Four hours a week for the first term.
- 10. English Constitutional History—1307. Two hours a week.
- 11. History of Canada, 1760-1837. Two hours a week. (Omitted in 1908-1909.)

## COMMERCIAL COURSE.

## First and Second Years.

- 12. Canadian History. Two hours a week.
- 13. English History since 1756. Two hours a week.

### TEXTS.

Honour Students in History will be examined at the end of the Third Year on the following texts:—Herodotus, VI-VII, Macaulay's trans.; Thucydides, I, II, 1-65, VI, VII, Jowett's trans.; Plutarch, The Lives of Themistocles, Pericles, Pyrrhus, Caius Gracchus, Cato the Younger, and Julius Cæsar, Clough's trans.; Polybius, Book VI-IX, Shuckburgh's trans.; Livy, Books XXI-XXII, Church and Brodribb's trans.; Tacitus, Annals, Book I, Germania, Vita Agricolæ, Church and Brodribb's trans.

Honour students in History will be examined at the end of the Fourth Year on the following texts:—Clarendon, History of the Rebellion, Book VII; Burnet, History of My Own Time, Book IV, from the beginning of 1689 to the end of the book; Gibbon, Decline and Fall, chapters I, II, III, XXIII, L, LVII, LVIII; Burke, Reflections on the French Revolution; Macaulay, History of England, chapters IV-IX; Captain Mahan, Influence of Sea Power on History; Buckle's History of Civilization, chapters I-II; Parkman, Montcalm and Wolfe; Lord Acton, Lectures on Modern History.

Summer Readings.—All students in History are expected to follow a course of summer readings as a preparation for

the work of the ensuing session. Special programmes will be drafted with a view to individual needs.

For Honour Courses in History, see also page 100.

## DEPARTMENT OF ECONOMICS AND POLITICAL SCIENCE.

Professor:—Stephen B. Leacock, B.A., Ph.D. Lecturer:—J. C. Hemmeon, M.A., Ph.D.

ORDINARY COURSES.

First Year.

(Commercial Course.)

I. ORGANIZATION OF COMMERCE AND INDUSTRY.

This course deals with the geographical basis of trade; with the situation, climate, agriculture, minerals and other resources of the various countries, together with their industrial and commercial development. Trade routes, including railways and canals, will receive attention; also the distribution of the leading industries, the sources of their raw materials and their markets.

Text-Books: — Lyde, Commercial Geography; Scobel, Handel's Atlas. Other books recommended: — Chisholm, Handbook of Commercial Geography; Mill, Atlas of the World's Commerce.

Two hours per week.

### Second Year.

2. Elements of Political Economy.

The most important features of modern industrial and commercial organization will be studied, including trade and transportation, the great wholesale markets, joint stock companies, monetary and banking systems, trade unions and wage systems, with the purpose of preparing the student for the study of economic and political theory. Some attention will also be given to the development of social organization.

Readings bearing on the topics of the lectures will be given. Two hours per week.

### Third or Fourth Year.

3. PRINCIPLES OF ECONOMIC THEORY.

The scope and method of Economic Science; the theory of value; the distribution of wealth, including the theories of rent, wages, interest and profits; the theory of money; international trade; principles of taxation.

Four hours per week throughout the session.

Recommended for preliminary reading: — F. A. Walker, First Lessons in Political Economy.

Text-Book: - Seligman, Principles of Economics.

Other books recommended: — Flux, Economic Principles; Keynes, Scope and Method of Political Economy; Hadley, Economics; Marshall, Principles of Economics; J. S. Mill, Principles of Political Economy, Book III; Jevons, Money and the Mechanism of Exchange; Bastable, Theory of International Trade; Sidgwick, Principles of Political Economy, Book III.

4. Principles of Political Science.

This course covers the general principles of political science, and a study of comparative national government.

Four hours per week throughout the session.

Text-Book: - Woodrow Wilson, The State.

Books of Reference:—Sidgwick, Elements of Politics; Burgess, Political Science and Constitutional Law; Anson, Law and Custom of the Constitution; Bryce, American Commonwealth; Bodley, France; Lowell, Governments and Parties in Continental Europe.

HONOUR COURSES.

## Third or Fourth Year.

5. Money and Banking.

Nature and functions of money, the currency systems of the leading nations, index numbers and their interpretation, banks and their functions, commercial crises, foreign exchanges, bi-metallism. A study of trade organization in connection with the circulation of goods will form part of the course.

Four hours per week for half the session.

Text-Books:—Nicholson, Money and Monetary Problems; Scott, Money and Banking; Dunbar, Theory and History of Banking.

6. ECONOMIC HISTORY.

This course will deal with the history of industry and commerce in Great Britain, mainly from the Industrial Revolution, and in the United States.

Four hours per week for half the session. Text-Book:—Gibbins, Industry in England.

Books of Reference:—Toynbee, The Industrial Revolution; Cunningham, Growth of English Industry and Commerce, Modern Times, Laissez-Faire; Bogart, The Economic History of the United States.

Courses 5 and 6 may be taken as continuation courses by candidates for the ordinary degree.

- 7. The Theory of Distribution. Half Course. (Omitted in 1908-9.)
  - 8. Tariffs and Trade. Half Course. (Omitted in 1908-9.)

## Fourth Year.

9. CANADA, GOVERNMENT AND PUBLIC POLICY.

Four hours per week during the first half of the session. Works of Reference:—British North America Act; Sir J. G. Bourinot, Constitutional History of Canada (Revised Edition, 1901); Dominion and Provincial Statutes; Sessional Papers of the Dominion of Canada; Fourth Census of Canada (1901); Statistical Year Book of Canada (Annual); Canadian Annual Review.

10. POLITICAL THEORY. — Modern political and social theories in their relation to the history of the time.

Four hours a week during the second half of the session.

References:— P. Janet, Histoire de la Science Politique; Sir F. Pollock, History of Political Science; J. Graham, English Poutical Philosophy; D. Ritchie, Natural Rights; T. Kirkup, History of Socialism.

### II. PUBLIC FINANCE.

State expenditures, with a discussion of the relations between those of central and local governments; public revenues, forms of taxation, incidence of taxation; public debts, financial administration.

Four hours per week during half the session.

Text-Book:—Plehn, Introduction to Public Finance.

Works of Reference:—Bullock, Select Readings in Public Finance; Bastable, Public Finance; Adams, The Science of Finance; Cohn, The Science of Finance; Leroy Beaulieu, Traité de la Science des Finances; Seligman, Essays in Taxation and The Shifting and Incidence of Taxation; Adams, Public Debts.

12. POLITICAL THEORY. — Ancient and mediæval political and social theories.

Four hours per week during half the session.

Courses 9 and 10 may be taken as Continuation Courses by candidates for the ordinary degree. When the subjects offered deal partly with Political Science, partly with Economics, students will find it of advantage to have taken previous work in Economics.

13. SEMINARY IN ECONOMICS.

Candidates for Honours in History and Economics (Course B), will attend the economic seminary. A more careful study of the writings of leading economists and publicists will be made than is possible in connection with the ordinary courses of lectures. Reports will be prepared by the members of the class, and methods of investigation illustrated practically. The extra examination papers referred to on page 100 will have reference, in part, to the work of the Seminary.

The meetings of the Seminary will be fortnightly.

SUMMER READINGS:—During the summer vacation following the Third Year, Honour students are advised to study the following books:—

Adam Smith, Wealth of Nations; Ricardo, Principles of Political Economy and Taxation; J. S. Mill, Principles of Political Economy; Sidgwick, Elements of Politics; Leroy

Beaulieu, The Modern State. Students are strongly recommended to obtain the advice of the members of the Department as to their summer readings.

(For Honour Courses in Economics and Political Science, see also page 100.)

### EDUCATION,

Professor:—J. A. Dale, M.A. (Oxon.).

## Third or Fourth Year.

The following topics will he taken up in this course:-

- I. Leading views of the function and scope of education; education as discipline and as development; education as organised influence on the growth of mind and character.
- 2. The study of mind and character from this point of view; upon what educational influence is exercised and by what means; the scheme of mind; the conscious and subconscious; the senses; attention, interest, memory, will, suggestion.
- 3. Experience and reaction; education as adaptation; the child and the race; the periods of growth, and their leading characteristics; the bearing of the changes on educational method.
- 4. The nature and development of knowledge, habit, judgment; education as self expression; the function of imagination, its relation to reasoned judgment, its culture and control; the varieties of imagination—historic, scientific, social, artistic, their origin and training.
- 5. Education technical, artistic and liberal; skill and culture; the humanities.
- 6. Cardinal points and decisive personalities in the history of education.

Four hours a week.

Attendance on the above course is required of students who wish to obtain an "Academy Diploma" for the Province of Quebec. In this connection attention is called to the work of the School for Teachers at Macdonald College, regarding which full information can be obtained from Prof. George H. Locke, Dean of the School.

#### 7

#### CONSTITUTIONAL LAW.

PROFESSOR:—F. P. WALTON, B.A., LL.B., LL.D. (DEAN OF THE FACULTY OF LAW).

The Constitutional Law of Canada will be treated in the following order:—I. Canadian Constitutional History prior to Confederation. 2. The British North America Act, and the leading cases under it which illustrate the respective powers of the Dominion and the Provinces. 3. The fundamentals of English Constitutional Government which form the basis of the Canadian Constitution. 4. The Cabinet System. 5. The difference between English and French practice as to responsibility of officials.

Two hours a week.

#### ROMAN LAW.

PROFESSOR:—F. P. WALTON, B.A., LL.B., LL.D. (DEAN OF THE FACULTY OF LAW).

A Course is offered in Roman Law, open to Third and Fourth Year students in Arts, and qualifying as an option for the B.A. Degree. For details, see under Faculty of Law, page 260.

#### DEPARTMENT OF MATHEMATICS.

PROFESSOR:—J. HARKNESS, M.A.

ASSOCIATE PROFESSOR:—A. S. EVE, M.A., D.Sc.

ASSISTANT PROFESSOR:—

LECTURERS:—

T. RIDLER DAVIES, B.A.

ORDINARY COURSES.

#### First Year.

I. PLANE AND SOLID GEOMETRY.—The equivalent of Books
IV, VI and XI of Euclid, with supplementary matter.
Hall and Stevens' Euclid.

Algebra. — Hall and Knight's Elementary Algebra (omitting chapters 40-43 inclusive), or the same subject matter in similar text books.

Trigonometry.—Hall and Knight's Elementary Trigonometry to page 210 and chapter 19.
Nature and use of logarithms.
Four hours per week.

# Second Year.

2. Geometry.—(a) Solid Geometry, continuation of the First Year; (b) Geometrical Conic Sections, Wilson's Solid Geometry and Geometrical Conics.

Algebra.—Permutations and Combinations; Binomial Theorem; Exponential and Logarithmic series; Unde-

Theorem; Exponential and Logarithmic series; Undetermined Coefficients; Partial Fractions; summation of typical series; Probabilities; Determinants; Graphic Methods.

Text-Book:—Hall and Knight's Higher Algebra. Three hours per week.

Spherical Trigonometry.—A short course compulsory for students proceeding to the Faculty of Applied Science. Students taking the Advanced Course in Mathematics are recommended to take this course.

# Third or Fourth Year.

3. ELEMENTARY ANALYTICAL GEOMETRY; elementary parts of the Differential and Integral Calculus; simple Differential Equations.

Four hours per week.

4. ASTRONOMY. — This course is intended to give a general account of the main facts of Astronomy, and the methods by which these facts are obtained. The lectures will be illustrated, and occasional evenings will be given to work in the observatory.

Two hours per week.

#### ADVANCED COURSES.

## First Year.

5. Lachlan's Modern Pure Geometry, or an equivalent text-book; Hall and Knight's Higher Algebra; Burnside and Panton's Theory of Equations (selected course); Trigonometry, as in ordinary course; Higher Trigonometry, Lock.

Four hours per week.

## Second Year.

6. ANALYTICAL GEOMETRY.—Smith's Conic Sections.

DIFFERENTIAL AND INTEGRAL CALCULUS.—Lamb's Infinitesimal Calculus and Chandler's Calculus.

Four hours per week.

Students are recommended to take the special short course in Spherical Trigonometry.

7. DYNAMICS, STATICS AND HYDROSTATICS.—A course of two hours per week, for students who are proceeding (1) to the Faculty of Applied Science, or (2) to Third Year Honours in Arts.

## HONOUR COURSES.

#### Third Year.

8. Selected topics in Differential and Integral Calculus.

9. Differential Equations.

10. Geometry of Three Dimensions.

II. Vector Analysis.

In addition students reading for Honours will be required to take course 6 and selected topics from course 5, under Physics, see page 161.

# Fourth Year.

The courses given will be selected from the following:—
12. Introduction to the Theory of Functions.

13. Elliptic Functions.

- 14. Lectures in connection with Scott's Modern Analytic Geometry and the early chapters of Salmon's Higher Plane Curves.
- 15. Lectures on Modern Geometry, based on Reye's Geometry of Position.

In addition students reading for Honours will be required to take the seminary topics of course 5, under Physics, (see page 161).

(For Honour Courses in Mathematics, see also page 101).

## DEPARTMENT OF PHYSICS.

PROFESSORS:—

JOHN COX, M.A., LL.D., Director.

HOWARD T. BARNES, D.Sc.

LECTURER:—H. L. BRONSON, PH.D. (Yale).

LECTURER IN RADIO-ACTIVITY:—A. S. EVE, M.A., D.Sc.

R. W. BOYLE, M.Sc.

Senior Demonstrator.

G. W. SHEARER, B.Sc.

F. H. DAY, B.Sc. (Boston).

F. W. BATES, B.A.

#### ORDINARY COURSES.

#### First Year.

I. Physics.—This course has two objects: (I) to give the minimum 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, and make measurements involving the use of the following instruments:—Balance, Pendulum, Barometer, Thermometer, Sonometer,

Telescope or Microscope, Tangent Galvanometer, Wheat-stone's Bridge.

Outline of Syllabus. The scope and method of Science, primary phenomena ("states and properties of matter"), motion, velocity, 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 energy.

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; the idea of potential; atmospheric electricity; magnetic field and lines of force; the compass and terrestrial magnetism; effects of current; the voltameter and storage cell; the galvanometer; heating effects; simple batteries; Ohm's Law; practical units and measurement of current, resistance, electromotive force; mutual mechanical effects of conductors and magnetic fields; principle of the electric motor; the electro-magnet; induction of currents, and principle of the dynamo; applications to telegraph, telephone, lighting, and supply of power.

Conclusion. — Restatement of principle of Conservation of Energy in complete form; dissipation of Energy.

Two hours a week. Text-book:—Mann and Twiss.

# Third Year.

2. Experimental Physics.—(First Course.)—Laws of energy, sound, light and heat. Text-book: — Watson, (Longmans).

Lectures fully illustrated. Two hours a week; with Laboratory Course, three hours a week.

Laboratory Manual.—Tory and Pitcher.

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; indices of refraction; focal lengths and magnifying powers of mirrors, lenses, telescopes and microscopes; the sextant, spectroscope, spectrometer, diffraction grating, optical bench and polariscopes.

HEAT:—Construction and calibration of thermometers; melting and boiling points; air thermometer; expansion of solids, liquids and gases; calorimetry; specific and latent heats; laws of vapour pressure; radiation; the mechanical equivalent of heat.

# Fourth Year.

3. Experimental Physics.—(Second Course.) — Electricity and Magnetism. Text-book:—S. P. Thompson.

Lectures fully illustrated. Two hours a week; with Laboratory Course, three hours a week.

Laboratory Manual.—Tory and Pitcher.

Measurement of pole strength and moment of a magnet; the magnetic field; methods of deflection and oscillation; comparison of moments and determination of elements of earth's magnetism; frictional electricity; current electricity:—complete course of measurements of current strength, resistance and electromotive force; calibration of galvanometers; the electro-dynamometer; comparison of galvanometers; the electrometer; comparison of condensers; electromagnetic induction; dis-

charge of electricity through gases; radio-activity; electrical waves.

N.B. — For Advanced Courses intended for Electrical Engineering students and graduates pursuing the study of Physics, see under Courses in Applied Science, page 242.

## Third or Fourth Year.

4. Mechanics and Hydrostatics.—Two hours a week.

# HONOUR COURSES.

## Third and Fourth Years.

- 5. Analytical statics; dynamics of a particle; rigid dynamics; hydromechanics.
- 6. Advanced courses in heat, optics and electricity. A short course in Physical Chemistry.

(For Honour Courses in Mathematics and Physics, see also page 101.)

#### DEPARTMENT OF CHEMISTRY,

PROFESSOR:—J. WALLACE WALKER, M.A., PH.D.

ASSOCIATE PROFESSORS:—{ Nevil Norton Evans, M.A.Sc.
Douglas McIntosh, M.A., D.Sc.
Lecturer:—F. M. G. Johnson, M.Sc.

DEMONSTRATORS:— R. S. BOEHNER, M.Sc.
A. F. ROBERTSON, M.Sc.
VERNON K. KRIEBLE, B.Sc.
PERCY H. ELLIOTT, B.Sc.

PROFESSOR OF ORGANIC AND BIOLOGICAL CHEMISTRY (Faculty of Medicine):—R. F. RUTTAN, B.A., M.D.

#### ORDINARY COURSES.

#### Second Year.

1. 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: — Holleman's Text-book of Inorganic Chemistry (Translation by Cooper). For Reference:—Bloxam's Chemistry. Three hours a week.

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. Four hours a week.

#### Third Year.

- 2. INORGANIC CHEMISTRY.—A course on Historical and Physical Chemistry. One hour a week.
- 3. ELEMENTARY ORGANIC CHEMISTRY.—An elementary course of lectures on Organic Chemistry open to students in Biology and compulsory for students intending to take the advanced course on Organic Chemistry in the Fourth Year.

Text-book: — Holleman's Text-book of Organic Chemistry. One hour a week.

4. ADVANCED PRACTICAL CHEMISTRY.—Laboratory practice in methods of gravimetric and volumetric analysis, during the first term, and preparation of simple organic substances in the second term.

Text-books:—Talbot's Quantitative Chemical Analysis and Holleman's Laboratory Manual of Organic Chemistry.

Six hours a week

#### Fourth Year.

5. Organic Chemistry.—A systematic course of lectures on Organic Chemistry, including the analysis of organic substances, calculation of formulæ, determination of molecular weights, polymerism, isomerism, etc., followed by a discussion of the more important derivatives of the aliphatic and aromatic series of compounds. Two hours a week.

- 6. Practical Organic Chemistry.—A complete course on the preparation and analysis of organic substances, with determinations of molecular weights, etc.
- 7. Physical Chemistry.—The lectures are a continuation of those given during the Third Year and include Thermo-Chemistry, the principles of Thermodynamics as applied to chemical action, osmotic phenomena and their application in deducing the ionisation theory of solutions, a study of such physical properties of gases, liquids and solids as are known to depend on their chemical constitution, the phase rule and Electro-Chemistry.

Two hours a week.

Books of Reference:—Ramsay's Text-Books of Physical Chemistry.

- 8. Practical Physical Chemistry.—Laboratory work will include the various methods of determining the molecular weights of gases and of substances in solution, accurate measurement of densities, refractive indices, surface tensions and specific rotations; also examples of chemical statics and kinetics, and electro-chemical measurements.
- 9. MINERAL ANALYSIS.—A course of laboratory work comprising advanced quantitative analysis and investigation of the constitution of mineral species.

# . Honour Courses.

# Third Year.

Honour students in the Third Year will be required to take all the ordinary courses of that Year and in addition do some extra reading and laboratory work.

# Fourth Year.

Honour students in the Fourth Year will take courses 5, 6, 7 and 8 or 7, 8 and 9.

(For complete Honour Courses in Chemistry, see page 101.)

#### MINERALOGY.

LECTURER: - RICHARD P. D. GRAHAM, B.A.

#### HONOUR COURSES.

#### Third Year.

I. MINERALOGY.—Lectures and demonstrations illustrated by models 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 formulæ, quantivalent ratios, etc.; principles of classification, description of species.

Two hours a week.

2. Determinative Mineralogy. — Laboratory practice in blow-pipe analysis and its application to the determination of mineral species. This work is carried on in the laboratory provided for the purpose in the Chemistry and Mining Building.

Thursday, 2 to 5 p.m.

# Fourth Year.

3. MINERALOGY (In continuation of No: 1).—Description of species, particular attention being paid to those which are important as rock constituents and to the economic minerals of Canada; measurement of the angles of crystals with the reflection goniometer; projection of crystal forms; calculation of axial ratios of crystals; drawing of crystal forms; use of the polarising microscope, axial angle apparatus, etc.

First term, two hours a week.

(For Honour Courses, see also page 101.)

## DEPARTMENT OF GEOLOGY.

Professor:—Frank D. Adams, D.Sc., Ph.D., F.R.S. Lecturer:—J. Austen Bancroft, M.A. Sessional Lecturer:—John A. Dresser, M.A.

## ORDINARY COURSES.

#### Second Year.

PHYSICAL AND COMMERCIAL GEOGRAPHY.—This course will be devoted to a study in outline of the physical features of the earth, and their influence upon commerce, especially upon the distribution and utilization of commercial commodities. In so far as practicable, a study will be made of the resources of the various countries of the world, and especially of the Dominion of Canada.

Two hours a week throughout the year.

N.B.—This forms part of the Commercial Course of the Second Year.

# Third Year.

I. GENERAL GEOLOGY.—The lectures will embrace a general survey of the whole field of Geology, and will be introduced by a short course in 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.

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:—Scott, An Introduction to Geology.

Books of Reference:—Dawson, Hand-Book of Geology; Dana, Manual of Geology.

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

## Honour Courses.

## Third Year.

(In Geology and Mineralogy.)

In the Third Year, students pursuing the Honour Course will take the ordinary work (General Geology, 1).

(For Mineralogical portion of this course, see page 164.)

#### Fourth Year.

2. Petrography.—The modern methods of study employed in Petrography are first described, and the classification and description of rocks are 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 Zirkel, Lehrbuch cer Petrographie.

3. A. PALÆONTOLOGY.—An extension of the Palæontology of Course 1, with special studies of some of the more important groups of fossils.

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

Books of Reference: — Nicholson and Lydekker, Manual of Palæontology; Zittel & Easman, Text-Book of Palæontology.

or

3. B. Physiography. — A description of land forms with reference to their origin, classification, drainage, development, climatic and human controls.

The physical features of Canada vill be described during the latter half of the course.

The course will consist of lectures, demonstrations, and laboratory work, and will be illustrated by maps, models, and lantern slides.

Two hours a week during the first term.

Books of Reference:—Davis, Physical Geography; Mill, The International Geography.

4. ORE DEPOSITS, ECONOMIC GEOLOGY AND PRACTICAL GEOLOGY.—The nature, mode of occurrence and classification of ore deposits will first be taken up. A series of typical occurrences will then be described and their origin discussed — the more important non-metallic materials—e.g., fuels, clay, abrasive materials, building stones, etc., will be similarly treated, as well as questions of water supply, artesian wells, etc. The methods employed in carrying out geological and magnetic surveys and in constructing geological sections will then be taken up with special studies in folding, faulting, etc.

The course will be illustrated by maps, models, lantern slides and specimens.

Four lectures a week throughout the second term.

Text-books: — Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States and Canada; Philips and Louis, A Treatise on Ore Deposits; Beck, Ore Deposits.

Books of Reference:—The Reports of the Geological Survey of Canada and the Monographs of the U. S. Geological Survey.

5. Canadian Geology.—A general description of the geology and mineral resources of the Dominion.

One lecture a week during the first term.

Text-book: Dawson, Hand-book of Geology.

Books of Reference:—The Reports of the Geological Survey of Canada.

6. Geological Colloquium. — A discussion each week of some geological topic, references to the literature of which have been given by the Professor in the week preceding. The course is intended to give students some acquaintance with geological literature, as well as a wider knowledge of the great principles which underlie the Science.

One hour a week in the second term.

7. Geological Survey. — Candidates for Honours in the Fourth Year will also undertake, under the direction of the Demonstrator in Geology, a geological survey of some suitable area selected for that purpose. This survey will occupy two weeks, and will be made either at the close of the Third Year or immediately before the opening of the regular work of the Fourth Year, as may be arranged by the Professor of Geology. The preparation of a geological map of the surveyed area, the examination of the specimens collected, and the writing of a detailed report upon the area, will form part of the work of the Fourth Year.

N.B.—A large amount of additional private reading will also be required of candidates for Honours.

(For Honour Courses in Geology, see also page 101.)

# DEPARTMENT OF BOTANY,

Professor:—D. P. Penhallow, D.Sc. Assistant Professor:—C. M. Derick, M.A.

## ORDINARY COURSES.

#### Second Year.

I. ELEMENTARY BIOLOGY.—Second half of the session. A course in the general morphology of plants, embracing a discussion of the general principles of morphology and classification, respiration, photosynthesis, nutrition, reproduction, symbiosis and adaptations, as also the relations of plants in geological time. These studies will be illustrated by means of special types taken from the principal groups.

This course is designed with special reference to those who may not be able to carry such work beyond the limits of an elementary course, and as a basis for more specialized work in the Third and Fourth Years.

Two lectures and two laboratory periods each week. For the first half of this course, see Zoology 1A, page 173.

#### Third Year

2. Special Morphology.—This course is designed to give a comprehensive knowledge of plant structures and relationships. The principles of development will be illustrated by type studies which may also serve as the basis of more special work in Bacteriology, Physiology, Ecology, or Palæobotany. It comprises:—

(a) First Half of the Session.—During the autumn term, attention will be directed to a study of the general histology of the plant, with special reference to the seed plants, as a basis for the more advanced work of the Fourth Year; and also to differential reactions, methods of staining, imbedding, section cutting and general technique.

This course will be especially adapted to chemists as applied to a study of food adulterants, etc.; to those who are intending to follow a medical course, as a preparation for animal histology, and it will be required of all who elect the course in the Fourth Year.

The course pre-supposes familiarity with the optics of the microscope as given in Physics 1, (3) of the First Year.

(b) Second Half of the Session.—Critical studies of the Thallophyta by means of selected types designed to illustrate the origin of organs, the origin and development of sex, the division of labour and the general laws of development.

Two lectures and two laboratory periods each week throughout the Session.

## Fourth Year.

- 3. SPECIAL MORPHOLOGY.
- (a) The complete study of a series of selected types, illustrating the structure, origin and relationships of the Bryophytes, and Pteridophytes.\*
- (b) The special morphology of the seed plants as represented by types illustrative of the principal groups, with special reference to relationship, development and adaptations.

<sup>\*</sup> Students' taking Honours in Geology and Mineralogy will also take Botany, (a) during the first half of the Session.

Students entering upon this course will be required to present qualifications equivalent to the course of the Third Year.

Two lectures and two laboratory periods each week throughout the Session.

For the work of the Third and Fourth Years, each student will be required to provide himself with a laboratory drawing book of specified form, and with necessary pencils, slides and cover glasses.

4. Systematic Botany. — A special course embracing herbarium work and the systematic study of the seed plants with reference to the determination of species, their environment and mutual relations. These studies will be prosecuted with special reference to a field knowledge of the ferns and flowering plants in the neighbourhood of Montreal.

This course is designed to complete and round out the study of the higher plants as given in the courses on Special Morphology (2 and 3). Students specializing in Botany will be required to follow this as part of the ordinary course of the Fourth Year. The course is also open to teachers of schools and to others who may have gained a knowledge equivalent to that represented by Gray's Structural Botany.

Two laboratory periods each week throughout the Session, with field days as may be arranged for.

5. STRUCTURE OF WOODS.—This course is designed to meet the special requirements of students proceeding to the study of forestry. It will deal with the practical study of the principal woods employed for structural purposes, their structure, modification under conditions of decay, mechanical stress, etc., determination of age, methods of preparing material for microscopical examination.

One lecture and two laboratory periods each week. Text-book:—Penhallow's North American Gymnosperms.

6. Physiology and Ecology.—A course of readings and lectures with laboratory work, forming an ordinary subject

for Forestry students and an Honours subject for Arts students.

One lecture and two laboratory periods throughout the Session.

Honour Courses.

(In Biology.)

#### Third and Fourth Years.

For work in Zoology, see page 174.

7. Candidates for Honours in the Third Year will, in addition to the ordinary work in Botany of that Year, read Darwin's Variation of Animals and Plants under Domestication during the first half of the session. These readings will be carried out jointly with the Zoological Department, and the examination will be held jointly by the two Departments. During the second half of the session, the work will consist of De Vries' Species and Varieties.

Students taking Honours in Biology will be required to take Chemistry in the Second Year, unless specially exempted by the Faculty on recommendation of the professors of Biology.

(For Honour Courses in Biology, see also page 102.)

The Biological Stations of Canada, now operating on the Pacific coast, Lake Huron and the Atlantic coast, offer exceptional opportunities for the prosecution of research. Students proceeding to the higher degrees in Biology will be eligible to occupy tables for investigation of an advanced character.

# B.Sc. Course (Ordinary).

#### Third Year.

8. Students proceeding to the degree of B.Sc. will be required to take the ordinary course of the Third Year Arts, (2) and, if specializing in Botany, also the Honour course in that subject for that Year.

Two lectures and two laboratory periods each week throughout the Session.

#### Fourth Year.

During the Fourth Year, students proceeding to the Degree of B.Sc. will be required to pursue special studies in extension of the work of the Fourth Year Arts, (3), in accordance with such plan as may be adopted by the B.Sc. Committee at the time of his entrance upon that Year.

# Courses Leading to Forestry.

Students who contemplate the adoption of Forestry as a profession, are advised to take the following course of study as a preparation for graduate work at a Forestry School. This course is framed with special reference to those who may be proceeding to the Degree of B.Sc.

In the First and Second Years, Physics (1) and Elementary Biology will be regarded as essential elements of the course.

## Third Year.

Special Morphology of Plants (2).
Honour readings with Colloquia (Botany 7).
Zoology (2).
Geology (1).
English Composition (4C).
Economics (2).

#### Fourth Year

Special Morphology of Plants (3).

Systematic Botany (4).

Physiology and Ecology (6).

Structure of Woods (5).

Entomology (first half of the Session).

Mammals and Fishes (3B, second half of the Session).

#### DEPARTMENT OF ZOOLOGY.

PROFESSOR:—E. W. MacBride, M.A., D.Sc., F.R.S. Lecturer:—J. Stafford, M.A., Ph.D. Demonstrator:———

#### Second Year.

IA. ANIMAL BIOLOGY.

This course consists of a careful study of the laws of Biology as illustrated by a selected series of types. Special stress is laid on vertebrate structure and function, to the study of which most of the time is devoted. The types dealt with are Amæba, Paramœcium, a Flagellate, Hydra, Lumbricus, Amphioxus, Scyllium, Rana.

Two lectures and two demonstrations a week up till Christmas.

This course, taken along with the corresponding course in Botany, constitutes the course in general Biology.

IB. ANIMAL PHYSIOLOGY.

This course includes a study of the principal organic compounds found in the animal body and also of the principal functional activities of Vertebrates.

Two lectures and one demonstration a week from Christmas till Easter.

This course is to be taken by those students who intend to qualify for the Ontario Specialists' Certificate in Biology. It is recommended to all those who intend to proceed to Honours in Biology.

## Third or Fourth Year.

## 2. INVERTEBRATE ZOOLOGY.

This course consists of a general review of all the classes of invertebrate animals, including the Tunicata and other Protochordata. Special attention is given to parasitic forms and those responsible for the production of disease.

Two lectures and two demonstrations a week throughout the Session.

#### CONTINUATION COURSES.

#### Fourth Year.

3A. VERTEBRATE ANATOMY AND HISTOLOGY.

This course includes a systematic study of the anatomy of the principal types of vertebrate animals, followed by a study of the histology of vertebrate tissues.

Two lectures and two demonstrations a week throughout the Session.

3B. COMPARATIVE EMBRYOLOGY.

This course consists of a study of the typical form of development and of its principal modifications in every class in the animal kingdom.

Two lectures and two demonstrations a week throughout the Session.

Students desiring to continue the study of Zoology during the Fourth Year may take either of the above courses. Students taking the seven year course in Arts and Medicine leading to the Degrees of B.A. and M.D., or B.Sc. and M.D., may take 2, 3A or 3B as a Third Year subject.

# HONOUR COURSES.

## Third Year.

Students proceeding to Honours in Biology shall take, during the first half of the Third Year, in addition to course 2, a series of special readings under the supervision of the Professor, with weekly colloquia. The subject for the coming session will be Darwin's Variation of Animals and Plants under Domestication. This work will be studied both in the Zoological and Botanical Departments, and the examination thereon will be held by the two Departments acting jointly. During the second half of the Session they shall pursue the study of Mammalian Anatomy as illustrated by the Rabbit.

One lecture and one demonstration per week.

This course is required in addition to IA in order to enable students to obtain exemption from the Biology examination in the First Year Medicine. As the subject of Embryology has been united with that of Animal Biology by the Faculty

of Medicine and a joint examination in the two subjects instituted, students in Arts desiring to obtain complete exemption from the Biological examination in the First Year in Medicine must either take 3B in their Fourth Year or the latter portion of the medical course in Animal Biology. During the Fourth Year students proceeding to Honours shall take courses 3A and 3B. For students proceeding to the Degrees of B.A. and M.D. in eight years, the Anatomy of First Year Medicine may be substituted for 3A.

Text-Books:—For courses 1A, 2 and 3A the Text-book of Zoology by Shipley and MacBride is recommended; for 3B, Korschelt and Heider's Text-book of Embryology.

(For Honour Courses in Biology, see also page 102.)

The Biological Stations of Canada, now operating on the Pacific coast, Lake Huron and the Atlantic coast, offer exceptional opportunities for the prosecution of research. Students proceeding to the higher degrees in Biology will be eligible to occupy tables for investigation of an advanced character.

#### B.Sc. Course.

Students proceeding to the degree of B.Sc. will be required to take 2.

If they intend to specialize in Zoology in the Fourth Year, they shall, in addition, take the Honours work prescribed for the Third Year. In the Fourth Year they shall take courses 3A and 3B and, in addition, such extra reading and laboratory work as may be prescribed by the Faculty.

A special fee of \$2.50 is charged against the caution money of each student attending the Zoological laboratory, in order to cover the cost of instruments and laboratory note-book which are supplied to him and become his property. A student attending the laboratory for a second time is not called on to pay this fee.

## 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.

# THE DIPLOMA OF COMMERCE.

The University offers a systematic course of study extending over two years, and intended as a preparation for entrance into business life. The course is not merely designed to impart instruction of a purely technical character. It is believed that a sound training in the essential branches of a liberal education affords the best equipment for the conduct of practical affairs. The object of the course is therefore rather to develop capacity than to impart special information. While adhering, however, to this general plan, the work of the commercial department is differentiated from that of the curriculum in Arts. Special stress is laid upon those subjects a knowledge of which is a necessity for business men, and the character of the instruction and the class methods adopted are specially suited for the end in view. The greatest emphasis is laid upon teaching the student to speak and write with fluency and accuracy, and to be able to apply a ready intelligence to practical business problems. The course is open to both men and women. On the successful completion of the course, a Diploma is awarded.

It is entirely within the aim of the University, in establishing this department, that the students therein should seek practical employment during the vacation period. Such employment, if of a suitable character, will form a useful complement to the work done in the University. It is confidently expected that the course will be viewed with such favor by the business community as to render the students particularly eligible applicants for positions in business houses.

#### ADMISSION.

(For entrance requirements, see page 23.)

#### COURSE FOR THE DIPLOMA.

#### First Year.

- I. English.
- 2. History.
- 3. Mathematics (including Commercial Arithmetic.)
- 4. French
- 5. Physical Geography; Commercial Geography.
- 6. Physics.

The work of the First Year is continued throughout the Summer Session (May 1st to June 12th), in the case of those subjects in which instruction is ordinarily provided. The work so done forms an integral part of the course for this Year.

#### Second Year.

- 1. English and History,
- 2. French (including Commercial French.)
- 3. Organization of Commerce and Industry.
- 4. Commercial Law.
- 5. Chemistry.
- 6. Accountancy.
- 7. Mathematics. (Algebra of the Second Year Arts—three hours weekly during the second half of the Session.)

ENGLISH.—The work done in this subject will be of an essentially practical character. The students will be given a constant drill in essay writing, the making of abstracts, précis and reports, and in such exercises as will train them to a ready use of English. Letter writing and business correspondence will be made important features of the work. A systematic training will be offered in reading and public speaking and in the oral presentation of reports. In addition to this a certain amount of formal instruction will be given in the elements of English Literature.

HISTORY. — The work here will consist of a survey of modern political history and a view of the structure of existing governments. The work in History will be closely co-related to the work in English. It is expected that the facility acquired by the student in taking notes, writing his logical

abstracts, etc., will serve as a useful practical exercise in connection with his English studies.

COMMERCIAL LAW.—By special arrangement with the Dean of the Faculty of Law, students will have the opportunity of studying, in this connection, an outline of the operation of Canadian government, federal, provincial and municipal. They will also have their attention directed to questions of every-day law, especially such as are likely to be met with in business practice.

French.—The course in French aims especially at imparting facility in the spoken and written language. During the Second Year, in addition to four hours a week of oral instruction, a fifth hour will be devoted to the teaching of Commercial French, and the forms to be used in correspondence and accounts.

MATHEMATICS.—The course in Mathematics will consist of Commercial Arithmetic and Algebra; the Arithmetic and Algebra being taught with special reference to their practical application.

Science. — The course in Science includes Physics and Physical Geography in the First Year, with Chemistry in the Second. The subjects will be presented in such a way that the students may not merely profit by the mental training afforded by the study of Natural Science, but may secure a general acquaintance with the scientific principles underlying modern industrial progress.

Organization of Commerce and Industry.—For outline of work in this subject, see page 150.

PHYSICAL AND COMMERCIAL GEOGRAPHY.—For description of courses in these subjects, see page 165.

ACCOUNTANCY. — In the Second Year formal instruction will be given in the principles and practice of accounting. The object will be to provide students with a sound knowledge of the science of accounting rather than to train them in the craft of keeping books.

#### REGISTRATION.

The names of students intending to enter the course should be sent in to the Registrar of the University not later than September 19th, 1908.

## FEES.

The fees are the same as in the Faculty of Arts.

For particulars regarding the P. S. Ross Exhibitions, see page 44.

# DEPARTMENT OF MUSIC.

I. REQUIREMENTS FOR THE DEGREE OF BACHELOR OF MUSIC.

Candidates for the Degree must have completed three years of musical study and must have passed the following examinations:—

- I. The Matriculation Examination.
- 2. The First Examination in Music, at the end of the First Year.
- 3. The Second Examination in Music, at the end of the Second Year.
- 4. The Final Examination.

Candidates must also pass a practical examination in Pianoforte, Organ, Violin or other approved instrument, or in Singing; and submit an exercise.

The particulars of the work for each of the above examinations are as follows:—

# The Matriculation Examination.

For subjects, see page 28.

Candidates must pass this examination before entering for the Second Examination in Music.

# The First Examination.

- (a) Advanced rudiments.
- (b) Harmony in four parts.
- (c) Counterpoint in three parts.

# The Second Examination.

- (a) Harmony in five parts.
- (b) Counterpoint in four parts.
- (c) Canon in two parts.
- (d) Fugal Exposition (up to four parts).
- (e) History of Music from the sixteenth century to the present day.

#### The Exercise.

Previous to proceeding to the Final Examination for Mus. Bach., the candidate will submit for approval an Exercise composed by himself, containing (1) four part chorus, (2) a solo or duet, (3) quartette unaccompanied, (4) fugue in four parts,—the whole to be scored for stringed instruments with independent accompaniment.

# The Final Examination.

- (a) Harmony in five parts.
- (b) Counterpoint in five parts.
- (c) Double counterpoint in the octave, tenth and twelfth
- (d) Canon in four parts.
- (e) Fugue in four parts.
- (f) History of Music from the earliest times to the present day.
- (g) Form in Composition.
- (h) Instrumentation.—A knowledge of the compass and capabilities of all instruments used in the modern orchestra.
- (i) Analysis of the full score of a given work.

NOTE.—(1) Candidates possessing Advanced Theory certificates of the Associated Board will be exempt from the First Examination. Equivalent certificates will be accepted at the discretion of the examiners.

(2) Candidates possessing Licentiate Certificates of the Associated Board will be exempt from both First and Second Examinations. Equivalent Certificates will be accepted at the discretion of the Examiners. Such certificates will not exempt candidates from the Arts subjects of the Matriculation Examination.

# II. REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MUSIC.

Bachelors of Music of McGill University, after the lapse of a period of three years from the time of taking the Degree of Bachelor of Music, may proceed to the Degree of Doctor of Music, the requirement for which is a composition in exMUSIC. 183

tended form, such as an oratorio, opera or cantata. This exercise must contain eight part writing and fugal treatment, and must be scored for a full orchestra, which original and unaided composition, if approved of, may be publicly performed by the candidate in the University or some other fit and proper place, at the discretion of the University. In addition, an examination in the higher forms of composition shall be necessary, together with a critical knowledge of the full scores of certain prescribed works.

# SPECIAL INFORMATION REGARDING THE FACULTY OF APPLIED SCIENCE.

THE SESSION 1908-1909 WILL OPEN ON MONDAY, SEPTEMBER 21ST, 1908. STUDENTS ENTERING THE UNIVERSITY WILL REGISTER AT THE REGISTRAR'S OFFICE BETWEEN THE 17TH AND 19TH OF SEPTEMBER (BOTH DATES INCLUSIVE); STUDENTS PREVIOUSLY ENROLLED WILL REGISTER IN THE SAME PLACE ON THE 19TH AND 21ST.\* FIELD WORK IN SURVEYING WILL COMMENCE ON MONDAY, AUGUST 24TH, 1908.

## FACULTY COMMITTEES.

On Admission of Students from other Universities.— The Dean, Professor Durley and Dr. Murray.

ON PARTIAL COURSES.—Professor McLeod, Dr. Cox and Dr. Porter.

On Examinations.—Dr. Porter, Dr. Murray and—

Particulars regarding the following points will be found by referring to the pages mentioned:—

A1		PA	GES
Admission from other Universities			34
Admission of Partial Students			14
Attendance			26
Exhibitions and Scholarships	L'A		56
Fees			67
Matriculation		4	0/
Medals and Prizes	•	The same	24
			02

For Time Tables of Lectures and Examinations, see first part of Calendar.

<sup>\*</sup> For complete registration regulations see page 35.

#### DEGREES AND EXAMINATIONS.

# (I) Degrees.

The Degrees conferred by the University upon such undergraduates of the Faculty as fulfil the conditions and pass the examinations hereinafter stated are, "Bachelor of Architecture (B.Arch.), and Bachelor of Science" (B.Sc.), mention being made in the Diploma of the particular course of study pursued.

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

Particulars regarding the combined course in Arts and Applied Science leading to the Degrees of B.A. and B.Sc. (Applied Science) in six years, are given on page 106.

By a resolution of the Institution of Civil Engineers (England) the holders of the Degree of B.Sc., in the courses of civil, electrical, mechanical, and mining engineering, who are desirous of becoming Associate Members of the Institution are exempted from the examination prescribed for admission.

# (2) Examinations.

- 1. Sessional examinations are held in all subjects. In addition, there are Christmas examinations in certain subjects, and class examinations are held from time to time, at the option of the Professor.
- 2. Credit may be given in the sessional standing for class examinations held during the session, and also for the Christmas examinations.
- 3. Students who have failed in one or more subjects of the curriculum (pp. 188 to 209) shall be required to make good their standing by passing:—
  - (1) The supplemental examinations, (for students attending the Survey School, August 19th to 22nd; for all others, September 14th to 18th), or
  - (2) The sessional examinations, or

<sup>†</sup> Students will not be permitted to come up for both of these examinations.

(3) The examinations of the summer courses when such examinations are equivalent to the sessional examinations, † or

(4) Special examinations, which shall be given only under exceptional circumstances and by authority of the Faculty.

4. Students who, at the commencement of lectures in any session have failed to make good their standing in three or more subjects, or in any two major subjects,\* shall, if they remain in attendance as undergraduates, be required to repeat all the work in those subjects.

5. Partial students are entitled to examinations in the subjects which they have taken as partial students, but not to supplementals, nor to examinations in other subjects.

## ENGINEERING SOCIETIES

I. The headquarters of the Canadian Society of Civil Engineers are located in Montreal. Students in all departments of engineering are strongly recommended to become student members of the Society, which they can do on payment of a fee of \$2.00. They are then entitled to the two volumes of "Transactions" which are annually published, and to the use of the Society's rooms on Dorchester Street. They also have opportunities of meeting the prominent engineers of the country and of being present at the fortnightly sessions, at which papers are read on current engineering subjects and works of construction.

Students are invited to compete for the prizes which are offered by the Society (see p. 57).

2. Students in Mining and Metallurgy are strongly recommended to become members of the McGill Mining Society, which, although a student body (see p. 62), is affiliated with the Canadian Mining Institute, the headquarters of which are in Montreal. Members of this Society receive the Transactions of the Institute without extra expense, and are entitled

<sup>\*</sup> These subjects are indicated in the course for each year by a section mark. (2) † These examinations are open only to students who have attended the summer courses and who have paid the regular fees therefor.

to attend all meetings and to compete for the prizes offered (see p. 241).

#### COURSES OF INSTRUCTION.

The instruction in this Faculty is designed to afford a thorough training of a practical as well as a theoretical nature, in the following branches of Applied Science:-

I.—ARCHITECTURE.

II.—CHEMISTRY.
III.—CHEMICAL ENGINEERING.

IV.—CIVIL ENGINEERING AND SURVEYING.

V.—ELECTRICAL ENGINEERING. VI.—MECHANICAL ENGINEERING.

VII.—METALLURGICAL ENGINEERING. VIII.—METALLURGY.

IX.—MINING ENGINEERING.

X.—RAILWAYS. (Theory and Practice).

The regular work of each session in Applied Science will end about the middle of April, at the close of the sessional examinations. The summer work will commence as soon as practicable thereafter, and will be continued for six weeks (see Reg. 2, below).

#### SUMMER WORK,

I. All undergraduates entering the Second Year (excepting those taking the Practical Chemistry Course), students in the Civil and Mining Engineering Courses entering the Third Year, and students in the Civil Engineering Course entering the Fourth Year, are required to be in attendance at the Surveying School on the 24th August, when the fieldwork in Surveying and Geodesy will commence. (See page 246.)

2. Undergraduates in the Mechanical, Electrical and Metallurgical Engineering Courses are required to attend a summer session of about six weeks between the Second and Third Years. The work to be done in the first two of these courses is as follows:-Mechanical Drawing (Machine Design and Machine Drawing), 10 hours per week: Physics and Physical Laboratory Work, 11 hours per week; Shopwork (Smith shop and Foundry), 11 hours per week. Undergraduates in Metallurgical Engineering will take courses in qualitative and quantitative chemical analysis.

3. Undergraduates in the Mining and Metallurgical Courses are required to attend the Summer School in Mining, held between the Third and Fourth Years (four to six weeks of fieldwork). This school is held in May and June. (See page 241.)

4. During the summer vacation following the close of each session, all students entering the Third and Fourth Years are required to prepare a thesis on a subject specified by the Faculty, or make a report on some practical work in course of construction. The marks given for these theses are added to the results of the sessional examinations, but no credit will be given for any report handed in after October 2nd.

# GENERAL OUTLINE OF COURSES.

The curriculum, as laid down in the following pages, may be changed from time to time as deemed advisable by the Faculty. The work prescribed for the first two years is the same in all courses, except in Practical Chemistry and in that leading to the Degree of Bachelor of Architecture.

The subjects of instruction in these years for all courses, except those above-named, and the number of hours per week devoted to each, are as follows:—

#### FIRST VEAD

	LIL	CSI YEA	K.		
	Lectures per week.		Laboratory etc. periods* per week.		For details see page.
SUBJECT	First Term	Second Term.	First Term	Second Term	
\$Algebra. \$Desc. Geometry. Dynamics. English. Freehand Drawing. Geometry. Mech. Drawing. \$Physics Shopwork. \$Trigonometry.		5	2  I I I  I I I 2 2	2  I I I I 1 1 2 2	227 220 228 223 224 227 230 243 253 227

Surveying Field Work, 4 weeks, beginning August 24th, 1908.

§Major subject. \*A laboratory period is three hours.

#### SECOND YEAR.

SUBJECTS	Lectures per week.		Laboratory etc. periods* per week.		For details see page.
	First Term	Second Term	First Term	Second Term	
Anal. Geometry  \$Calculus.  \$Chemistry.  \$Mapping  \$Materials of Const  \$Mech. Drawing.  \$Mechanics.  \$Mechanics.  \$Physics.  Shopwork  Surveying.	3 3 3  1	3 3  1  3 2	 ! 1 3 ! !	 1 1 3 1	228 228 213 246 217 230 228 228 243 253 245

#### I. Architecture.

The Course in Architecture is now being revised. A pamphlet embodying the changes will be issued in the course of the summer.

The Architectural Course, qualifying for the Degree of Bachelor of Architecture (B.Arch.), differs from the others in the Faculty of Applied Science in that the curriculum is from the First Year separate and distinct, the studies in that year being divided between the Faculties of Arts and Applied Science.

In the Second Year the architectural studies proper commence and the amount of time devoted to design increases in the Third and again in the Fourth Years.

Students of Architecture studying for the B.Arch. Degree will attend the Summer School in surveying before entering the Second Year.

Broadly speaking, the lectures may be divided into five groups dealing respectively with History, Construction, Theory of Design, Ornament and Decoration, and Professional Practice, and in all courses studio work goes hand in hand with oral teaching, with a view to the practical applica-

Major subject. \*A laboratory period is three hours.

tion of the theory, while at the same time affording opportunity for the acquisition of power in draughtsmanship and practice in Design, this latter being the chief aim of the course.

The Degree of B.Sc. in Architectural Engineering is provided for in an alternative course. In this case, the first two years are taken with the Civil Engineering students and Theory of Structures is included in the work of the latter years.

A modification of the Arts matriculation examination (with French compulsory, and, at the discretion of the Professor of Architecture, Freehand and Geometrical Drawing added) will be taken by those studying for the Degree of B.Arch., while the Applied Science matriculation examination will be taken by those studying for the B.Sc. Degree.

The lectures given in the Third and Fourth Years are, as far as possible, in the morning, to enable partial students working in offices to avail themselves of the instruction. Such lectures will be found of use to those studying for the R.I.B.A. and the P.Q.A.A. examinations,

The subjects of instruction and the number of hours per week devoted to each are as follows. (The allocation of time is liable to be varied according to the aptitude of the student):—

## DEGREE OF BACHELOR OF ARCHITECTURE.

(a) English (a) French (a) History (a) Mathematics (a) Physics	4	(s)	Hrs.  Architectural Drawing. 4 Descriptive Geometry 6 Freehand Drawing. 3 Lettering 2
S	SECOND	YEA	R.
(a) Mathematics  { History of Architecture       Archt. Drawing, Historica       Elements of Architecture       Design  { Building Construction       Working Drawings	2	5	Surveying

Subjects marked thus (a) are taken in the Faculty of Arts, while subjects marked (s) are taken in the Faculty of Applied Science, other subjects being dealt with in the Department of Architecture.

### THIRD YEAR.

HRS.  * History of Architecture 2 Archt. Drawing, Historical. 4  { Ornament and Decoration. 1 Detailing 3  (s) { Descriptive Geometry 1 (s) { Perspective 3	Hrs.  Sanitation and Heating
Fourth	YEAR.
HRS.  * History of Architecture 2  * Archt. Drawing, Historical. 4    Planning	Hrs.  * Professional Practice r  * Specifications 3  Structural Design 6
DEGREE OF BACHELOR OF SCIENCE	(ARCHITECTURAL ENGINEERING).
FIRST AND SE	COND YEARS.
As in other Engineering Cours	es. For details, see page 188.
THIRD YEAR-	(First Term).
Hrs.	Hrs.
* History of Architecture 2  * Archt. Drawing, Historical 4  { Building Construction 1  Working Drawings 4	*{ Sanitation and Heating I Drain Plans and Heating Systems
(s)   Descriptive Geometry 1	Structural Eng. Details 4
(s) { Perspective	(s) { Theory of Structures 3         (s) { Graphical Statics 2         (s) { Testing Laboratory 3
Fourth	YEAR.
Hrs.	Hrs.
* History of Architecture 2 Archt. Drawing, Historical. 4	* Specifications and Professional Practice 1
Planning	Structural Design18

<sup>(</sup>s) First term only. \* Third and Fourth years together in alternate years.

Subjects marked thus (a) are taken in the Faculty of Arts, while subjects marked (s) are taken in the Faculty of Applied Science, other subjects being dealt with in the Department of Architecture.

## II. Chemistry.

The course in Chemistry is arranged to give the student in the first two years a thorough knowledge of the fundamental principles of Chemistry and Physics, with sufficient Mathematics to enable him to understand the theoretical parts of these subjects.

In the two subsequent years Chemistry, analytical, organic, and physical, is taught both in its purely scientific aspects and in its relations to the various departments of commercial work. Special facilities are afforded for the prosecution of graduate research work in all the branches of Chemistry.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

## FIRST YEAR.

As in other Engineering Courses. For details, see page 188.

#### SECOND YEAR.

SUBJECT.	Lectures per week		Laboratory, etc., periods* per week.		For details see page.
	First Term	Second Term	First Term	Second Term	
Analytic Geometry \$Calculus. \$Chemistry \$Inorganic Qualitative \$Mechanics. \$Physics	3 3 3	3 3 1 3 2	5 	 5 	228 228 213 214 228 243

<sup>&</sup>amp; Major subject.

<sup>\*</sup> A Laboratory period is three hours.

### THIRD YEAR.

SUBJECT	Lectures per week.		Laboratory, etc., periods* per week.		For details see page
	First Term	Second Term	First Term	Second Term	
to select the residence	a billeton	The state of		BENY List	ST GOLD
§Geology	3	3	I	I	225
Inorganic Chemistry.	I		5	5	214
Metallurgy	2				233
§Mineralogy	2	2		2	237
§Organic Chemistry	2		2		214
§Physical Chemistry		2	300.1.00		214

### FOURTH YEAR.

SUBJECT	Lectures per week.		Laboratory, etc., periods* per week		For details see page.
	First Term	Second Term	First Term	Second Term	
Electro-Chemistry Industrial Chemistry. Physical Chemistry. Fire Assay (alt.) Inorganic Quant. (alt.) Mineralogy (alt.) Ore Deposits (alt.) Organic Chem. (alt.)	2 2 2 I 2	2 2 2	2 1 4 1	1 2 4 5	215 215 215 233 215 237 226 215

# III. Chemical Engineering.

The aim of this course is to prepare the student for the duties of managing engineer in a chemical manufactory. As such he must not only be conversant with the chemical processes involved, but he may also be required to design and oversee the construction of new buildings and plant and to

§ Major subject.

<sup>\*</sup> A laboratory period is three hours.

direct the installation and use of machinery. Accordingly the course of study seeks to combine a considerable amount of engineering with the maximum of chemical training which can be attained without overpressure during the four years of the curriculum.

During the first two years the course is identical with that in the other branches of engineering, but between the Second and Third Years students must attend a summer session of about six weeks in the chemical laboratories.

In the Third Year specialisation commences, the time being about equally divided between chemical and engineering studies, and in the vacation between the Third and Fourth Years all students must give at least six weeks to work in some chemical industry or to equivalent laboratory work satisfactory to the Professor of Chemistry.

In the Fourth Year the engineering studies are completed and the chemical studies which predominate are arranged in several alternative courses to meet the requirements of the students who cannot possibly study more than a few of the very varied chemical industries. These alternative courses fall broadly under one or other of two headings:—(a) inorganic and electrochemical, (b) organic. Should a student desire to prepare for an industry which requires more engineering knowledge than is provided in the regular course he may substitute additional engineering subjects for some of the chemical work. Details will be arranged on application to the Faculty through the Professor of Chemistry.

While every effort will be made to supply detailed information as to methods and plant of many of the important industries, and to provide facilities for experimentally carrying out the processes involved, the main aim will be devoted to the study of the principles which underlie economical production.

The subjects of instruction and the amount of time devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see page 188.

# THIRD YEAR.

SUBJECT	Lectures per week.		Laboratory, etc., periods* per week.		For details see page
	First Term	Second Term	First Term	Second Term	
Anal. Mechan.  Mechan. Engineering.  Metallurgy.  Inorganic Chem.  Physical Chem.  Organic Chem.  Specifications and Accounting.  Strength of Materials.  Struct. Engineering.  Chem. Lab. (alt.)  Mineralogy. (alt.).  Ore Dressing (alt.)	2 2 2 1  2	2  2  2 2 2 1  2	3  2		228 231 233 214 214 214 214 216 218 214 237 238

# FOURTH YEAR.

SUBJECT	Lectures per week.		Laboratory, etc., periods* per week.		For details see page.
	First Term	Second Term	First Term	Second Term	
Electrical Engineering. Hydraulics Industrial Chem. Law. Electro-Chem. (alt). Electric Furnace (alt.) Fire Assay (alt.) Inorganic Quantit. (alt) Organic Chem. (alt.) Physical Chem (alt).	2 2 2 1  1 2	2 2 (opt.) I 2 I I 2 I	i	i 6 i i	223 218 215 248 215 235 233 215 215 215

<sup>\*</sup> A lâboratory period is three hours.

# IV. Civil Engineering.

The first two years of the undergraduate course in Civil Engineering are devoted mainly to preparatory work in Mathematics, Mechanics, Physics, Chemistry, Drawing, and Shopwork.

In the Third Year the strength of materials is a principal subject of study. The knowledge of this subject and of mechanics already gained is applied to simple problems in the analysis of stresses in framed structures, and to the design of foundations girders, columns, roof-trusses and the like. Courses in Surveying extend throughout the Second and Third Years with summer school sessions for fieldwork at the beginning of the Second, Third and Fourth Years. Courses in Railway and Municipal Engineering run through the Third and Fourth Years.

In the Fourth Year comprehensive courses are given in Geodesy, Hydraulics, Hydraulic Machinery and Theory of Structures. Much of the time in this year is, however, devoted to the details of Bridge Design, as it is thought that a thorough knowledge of this subject is a preparation for work in the entire field of structural design.

Facilities are afforded to graduate students who wish to engage in research work in the strength and elasticity of materials and the like, or in more advanced work in structural design than can be overtaken in the undergraduate courses. A post-graduate course in Practical Astronomy and Geodesy will also be provided for any who may desire to specialize in Geodetic work.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

#### FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see page 188.

### THIRD YEAR.

SUBJECT	Lectures per week.		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
100 0 00 military 70	of brid			Acces to	a sulfi.
Desc. Geometry	I	I	I	I	220
&Geology	2	2	I	I	225
&Mapping	1000.000		2	2	217
Masonry	I		I		
Mathematics (Diff.					
Equations)	optional				
Mechanics	2				228
Mech. Engineering	2	2	I	I	231
Mun. Engineering	I	I			219
Railway Engineering	2	2		1 12	252
Strength of Materials.	2	2	I		217
Struct. Engineering		I		I	218
Specifications and					
Accts	The second	2			
&Surveying	2	2	(		245

Surveying Field Work, 4 weeks, beginning August 24th, 1908.

### FOURTH YEAR.

SUBJECT	Lectures per week		Laboratory, etc. periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Bridge Design Elec. Engineering Geodesy. Graph. Statics Hydraulics Municipal Eng. Railway Eng. Strength of Mats. Lab Theory of Structures.	2 2 2	2	2 1 1 1 1	3 1	218 223 245 218 218 219 252 217 216

Surveying Field Work, 4 weeks, beginning August 24th, 1908.

\* A laboratory period is three hours. & Major subject.

## V. Electrical Engineering.

The First and Second Years of the undergraduate course of instruction in Electrical Engineering are devoted, mainly, to a preparation in Mathematics, Physics, Chemistry, Mechanics, Drawing, Shopwork and work in the physical and chemical Laboratories.

The electrical studies of the Third Year embrace a consideration of current flow, in circuits of different kinds, the principles of electro-magnetism, electrical measurements and the design and action of commutating machinery.

The Fourth Year is devoted principally to electrical work, and includes lectures and recitations on variable and alternating current phenomena, the principles of action and the design of alternating current machinery, electric lighting and systems of power distribution, central station design and operation, urban and inter-urban railways and long distance power transmission.

In the second term of the Fourth Year a choice may be made between electro-chemistry and hydraulics. Each Fourth Year student is required to present a thesis giving the results of a suitable experimental investigation.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

# FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see page 188.

### THIRD YEAR.

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page.
	First Term	Second Term	First Term	Second Term	
Anal. Mechs	2 2  2 2 2  2 I	2 2 2 2 2 2 2 1	2 2 3 3  1 1  1 <sup>2</sup> 3 1	2 2 3 3	220 214  229 231 230 229 243 216

## FOURTH YEAR.

SUBJECT	Lectures per week		Laborato peri per v	For details see page	
	First Term	Second Term	First Term	Second Term	
Alt Cumanta & A C					Part Name
Alt. Currents & A. C. Machy. & Lab Designing El. Light & Power	3	3	3 1 1 2	3 1 1 3	221
Distribution	3				221
Elec. Traction		3			221
Hyd. & Lab	2		1		218
Hydraulics and Elect. Chem. (Alt.)		2			-0
Mach. Design	2			I	218
Mech. Eng. Lab	Maria Republica				229
Thermodyamics	2	2		I	231

## VI. Mechanical Engineering.

The complete undergraduate course in Mechanical Engineering extends over four years, and provision is made for a fifth year or graduate course in advanced experimental and other work.

The first two years of the undergraduate course of instruction are largely occupied in preparation in Mathematics, Physics, Chemistry, Mechanics, Drawing, and Shopwork.

During the Second Year one lecture and one exercise class per week are devoted to the kinematics and dynamics of machines. While motion without regard to force is treated in the Kinematic course, the action of external forces in producing or changing motion in the links of mechanisms is considered in the Second, Third and Fourth Years, under the head of Dynamics of Machines. The lectures in these two subjects form the course in Mechanics of Machines. Exercise classes are held for the purpose of working the problems necessary for illustration, graphic methods being used in most cases.

The work in Machine Design is carried on during the Third and Fourth Years in conjunction with the practical instruction in mechanical designing and drawing in the Drawing Rooms.

The course in Thermodynamics (see p. 230) deals more particularly with the theory of Heat Engines. Two lectures per week are given, and time is assigned for additional graphical and experimental work in connection with the subject.

A course of two lectures per week is given during the Third and Fourth Years in Mechanical Engineering as applied to questions connected with Power Installations and Prime Movers. A large portion of the work of this course is supplementary to, and follows, the instruction given in Thermodynamics and Machine Design, which extends over the Third and Fourth Years. (See p. 230).

Students in the Department of Mechanical Engineering take a systematic course in electrical engineering during the Third and Fourth Years. (See p. 223.) Instruction in Workshop Practice (see p. 253) is given in each of the four years. It is of a systematic nature, and is intended to prepare for, but by no means to replace, that practical experience of workshop operations on a commercial basis which every mechanical engineer must obtain for himself.

Students intending to take the Mechanical Engineering Course are advised to confer with the Professor with a view of utilising the summer vacations for obtaining this experience.

The work of the lecture rooms is illustrated throughout the course by experimental work carried out by the student, and by demonstrations in the laboratories of the department.

Arrangements are made for occasional visits to power plants and manufactories of importance.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

## FIRST AND SECOND YEARS.

As in other Engineering Courses (see p. 188), with additional course in May and June for Second Year (p. 187).

### THIRD YEAR

	1111				
SUBJECT	Lectures per week		Laboratory etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Applied Mechanics	2	2			
Electrical Eng. & Lab	2	2			216
§ Machine Design	2	2	1	I	222
§ Mechanical Drawing.	The second second	2			229
Mechanical Eng. &			2	I	230
Lab	2	2	I		
Mechanics	2	2	1	I	231
§ Mech. of Machines	2	2			228
Shopwork.,	-			- 100	229
Specifications & Ac-			I	I	253
counts		2			
Strength of Materials		2			
Lab					
Structural Eng. &	100000		I	I	217
Drawing		-		1000	0
Thomas dynamics		I		I	218
Thermodynamics	2	2			230

<sup>§</sup>Major Subject. \*A laboratory period is three hours.

#### FOURTH YEAR.

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page
	First Term	Second Term	First Term	Second Term	
Designing Electrical Eng. Engineering Law. Hydraulics & Hyd. Lab Machine Design. Mech. Eng. & Lab Mechanics of Machines Shopwork Thermodynamics	 I I 2 2 2 2	I I 2 2 2 2 2 2	2  1  4 	3  4 	230 223 248 218 229 231 229 253 200

## VII. Metallurgical Engineering.

This course is designed for students intending to enter Metallurgical Works such as iron or steel works or smelters. It includes instruction in the Engineering, Chemical and Metallurgical studies required by practising metallurgists.

A certain amount of mining is included in the Third Year's curriculum in order to show the relation between mining and metallurgy; but the course is not intended for students wishing to become Mining Engineers.

Students who wish to specialize on the chemical side of metallurgy are recommended to select Course VIII.

The first two years of the undergraduate course are mainly devoted to Mathematics, Mechanics, Physics, Chemistry, Drawing and Surveying.

Immediately after the Second Year there is a short summer course in the Chemical Laboratories.

In the Third Year of the Metallurgical Engineering Course instruction is given in Chemistry, Assaying, Geology, Mineralogy, Metallurgy, Mining, Ore-Dressing, and Mechanical and Structural Engineering.

Between the Third and Fourth Years there is a summer school in Metallurgical Works.

In the Fourth Year instruction is given in Chemistry, Electrical Engineering, Law, Hydraulics, Metallurgy and Ore-Dressing. Metallurgical Designing and Laboratory Work form important parts of the course. The laboratory Work is partly Metallurgical and partly Ore-Dressing, in the first term, and in the second term a special piece of experimental work is undertaken by each student.

The subjects of instruction and the number of hours per week devoted to each are as follows:-

# FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see page 188.

After the Second Year there is a six weeks' summer school in qualitative and quantitative analysis in the Chemical Laboratory, beginning about the 20th of April.

#### THIRD YEAR.

	Lectures per week		Laboratory, etc., periods* per week		For details see page
SUBJECT	First Term	Second Term	First Term	Second Term	
Analytical Mechanics  \$Assaying \$Chemistry \$Geology \$Mechanical Engin \$Metallurgy \$Mineralogy Mining Ore Dressing Specifications & Accts \$Strength of Materials Structural Engin	2 1 2 1 2 2 3 2	2 2 1 2 2 2 2 2 2 2	2 2 3 1 I I	1	228 233 214 225 231 233 237 238 238 216 218

<sup>\*</sup>A Laboratory period is three hours. §Major Subject.

After the Third Year there is a six weeks' field course in Geology, Mining and Metallurgy, beginning about the 24th of April.

#### FOURTH YEAR.

	Lectures	Lectures per week		Laboratory , etc., periods* per week	
SUBJECT	First Term	Second Term	First Term	Second Term	
Chemistry  "Elec. (opt), Electrical Engineering Engineering Law. Hydraulics  Metallurgy  "Colloquium. "Design. "Electro- "Machinery.	2 1 2 4	1 2 2 1	4  	 1	215 215 223 248 218 234 235 236 235
" Min. & Lab.			2	3	236
Ore Dressing Ore Deposits (opt.) Petrography (opt.)	2 	3		· · ·	239 226 225

# VIII. Metallurgy.

This course is designed for students who intend to devote their attention mainly to the chemical side of Metallurgy with the intention of becoming analytical or consulting metallurgical chemists. The first two years are the same as in the Chemistry Course. In the Third and Fourth Years instruction is given in Analytical Chemistry and Assaying, Theoretical inorganic and Electro-Chemistry, Metallurgy, Mineralogy, Geology, and Ore-dressing. Certain options are offered in the Fourth Year.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

#### FIRST YEAR

As in the other courses. For details, see page 188.

<sup>\*</sup> A laboratory period is three hours.

### SECOND YEAR.

As in Course II, Chemistry. For details, see p. 192.

#### THIRD YEAR

	Lectures	Lectures per week		Laboratory, etc., periods* per week	
SUBJECT	First Term	Second Term	First Term	Second Term	
§Assaying	3	2 2 1	1 4 1 3 1	3 3 3	233 214 225 233
Ore Dressing	2	2	12.08/4	I	237

After the Third Year there is a six weeks' field course in Geology and Metallurgy, beginning about the 24th of April.

#### FOURTH YEAR.

SUBJECT	Lectures per week		Laboratory, etc., periods* per week		For details see page
eso, soulor, Po, reduce	First Term	Second Term	First Term	Second Term	
Chemistry Analytical.	I	I	3		215
" Electro		2	the Parking	I	215
" Industrial	2				215
Metallurgy	4	4			234
" Colloquium		I			235
" Design " Electro				2	236
" Electro		I			235
" & Ore Dress					239
Lab			2	3	
Ore Dressing	2				239
Ore Deposits (opt.)		3	12	-	226
Petrography (op.t)	I			I	225
Engineering Law (opt.)	I	I			248

<sup>\*</sup> A laboratory period is three hours. § Major Subject.

## IX. Mining Engineering.

(With Options in Metallurgical Engineering.)

I. The first two years of the undergraduate course in Mining Engineering are mainly devoted to Mathematics, Mechanics, Physics, Elementary Chemistry, etc., as it is deemed necessary that the students should master the general principles underlying scientific work before they attack the somewhat complex and specialized subjects of the professional course.

In the Third Year, elementary courses in both Mining and Metallurgy are given, and a thorough course in Fire Assaying, but again the chief work is in Applied Mechanics, Mechanical Engineering, Geology, Mineralogy and Chemistry.

The Fourth Year, on the other hand, is very largely given up to detailed work in Mining, Ore Dressing and Metallurgy, and, in addition to the lectures and demonstrations, two days per week are spent in the Mining and Metallurgical laboratories and the drawing room. During the Fourth Year each student is required to prepare a thesis giving the result of an individual experimental investigation.

In the Fourth Year, students who are interested in Metallurgical work can elect to take advanced work in that subject in place of Advanced Hydraulics.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

## FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see page 188.

### THIRD YEAR.

Lectures pe		per week Laboratory periods per wee		ods*	For details see page
SUBJECT	First Term	Second Term	First Term	Second Term	
§Analyt. Mechanics §Assaying and Lab §Chemistry and Lab §Geology Mathematics (Diff. Equa.) §Mech. Eng. & Lab Metallurgy §Mineralogy & Lab §Mining §Ore Dressing & Lab Specifications & Accts §Str. of Mat. & Lab. Struct. Engineering. Surveying & Mapping	2 2	(opt.) 2 (opt.) 2 2 2 2 2 1	1 2 1/3 1 1	1 1/3	228 233 214 225 231 233 237 238 238 216 218 245

Mining Field Work, beginning April 23rd, 1909. Surveying Field Work, beginning August 24th, 1908.

### FOURTH YEAR.

FOURTH YEAR.					
	Lectures per week		Laboratory, etc., periods* per week		For details see page
SUBJECT	First Term	Second Term	First Term	Second Term	
Chemistry & Lab Elec. Eng. & Lab Engineering Law Geol. & Ore Deposits Geology & Petrography Hydraulics HydElect Met. (Alt.) Metallurgy Mining "Colloquium "Mach. & Desig "& Met. Lab Ore Dressing & Milling	3 2 2 2 1 2	2 1 3 1  1 2 2 2 1 2	4 I	I	215 223 248 225 225 218 235 234 238 239 239 239

<sup>\*</sup>Laboratory period, 3 hours. §Major Subject.

# X. Department of Railways.

#### THEORY AND PRACTICE

The courses in the Department of Railways are designed for students who will enter:—

- (1) The Operating Department or Executive Offices.
- (2) The Mechanical Department.
- (3) The Engineering Department.

The work of the First and Second Years is identical with that of the other courses in the Faculty of Applied Science; that of the Third and Fourth Years is shown below.

The Faculty reserves the right to reject any student who, in the opinion of the Head of the Department, cannot fulfil the requirements of the railways.

Students in the department will, so far as possible, enter the employ of a railway company, during the summer vacations, with the intention of continuing their connection with the company after graduation.

The subjects of instruction in each branch of the course, and the number of hours per week devoted to each are as follows:

#### OPERATING AND EXECUTIVE.

FIRST AND SECOND YEARS.

As in other courses. For details, see page 188.

#### THIRD YEAR.

HRS.  \$Economics	Railway Engineering. 2 Drafting 6 Railway Mechanical Engineering 2
Graphical Statics       3(a)         Shorthand       3         Telegraphy       3	Laboratory
Curroning Elald 1	

Surveying Fieldwork, 4 weeks (p. 246).

<sup>(</sup>a) First term. (b) Second term. ] (?) Major subject.

#### FOURTH YEAR.

Hrs.	Hrs.
Accounting	Physical Geography and Cli-
Economics 2	matology 2
Electrical Engineering 5	Railway Engineering 2
English	Railway Mechanical Engineer-
Operating 3	ing 5
Passenger Service (b)	Signals (including drafting) . 4
Electric Railways (included	Shorthand 3
in Railway Engineering)	Telegraphy 3

For particulars of the work in each of the above subjects, see pages 248 to 253.

## MECHANICAL ENGINEERING DEPARTMENT.

The work of the First, Second and Third Years will follow that outlined for Mechanical Engineering students (p. 201). During the Fourth Year opportunity will be given for specializing in locomotive construction and operation.

#### CIVIL ENGINEERING DEPARTMENT.

Students in this course will follow that outlined for Civil Engineering students (p. 196) and, in addition, will be required to engage in practical work during the vacations under the supervision of the Department of Railways.

<sup>(</sup>b) Second term.

#### COURSES OF LECTURES.

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

### I. Architecture.

The course in Architecture is now being revised. A pamphlet embodying the changes will be issued in the course of the summer.

PROFESSOR: - PERCY E. NOBBS, M.A. (Edin.), A.R.I.B.A.

Assistants;—{
 CECIL E. Burgess, A.R.I.B.A.
 E. S. S. Mattice, B.A.Sc.
 Marcel Beullac, B.Sc.

DEMONSTRATOR:

The work of the First Year, which includes Mathematics, English, French, and Physics, with the First Year, and History with the Third Year in the Arts Faculty, and Drawing in the Applied Science Faculty, is fully detailed under the head of each of these subjects. During the last three years the courses of study for architectural students are as follows:—

- I. History of Architecture (Ancient, 3000 B.C. to 600 A.D.).

  SECOND YEAR. First Term.) Egypt, Assyria, Babylonia, Greece. (Second Term.) Rome, Pompeii, the Early Christian and Byzantine periods. Mr. Burgess.
  - Text Books:—"A History of Architecture," by Banister Fletcher (Batsford); Anderson and Spiers, "Architecture of Greece and Rome" (Batsford).
- 2. History of Architecture. (Mediæval, 600 A.D. to 1500 A.D.) Third and Fourth Years together (alternately.) (First Term.) The Romanesque Period in Europe; the Gothic Periods in England. (Second Term.) The Gothic Periods in France and Europe generally. Mr. Burgess.

Text Books:—Banister Fletcher, "A History of Architecture" (Batsford); Prior, "History of Gothic Art in England (Bell); Moore, "Gothic Architecture" (Macmillan); Bond, "Gothic Architecture" (Bell).

3. History of Architecture. (Renaissance, 1400 to 1800.)

Third and Fourth Years together (alternately).

(First Term.) The Renaissance in Italy. (Second Term.) The late Renaissance in France and England and the XIXth Century movements in Europe and America. Mr. Burgess.

Text Books:—Banister Fletcher, "A History of Architecture" (Batsford); Anderson, "Renaissance Architecture in Italy" (Batsford); Blomfield, "Short History of Renaissance Architecture in England" (Bell).

- 4. Elements of Architecture. Second Year. (First Term.)
  Analysis of trabeated forms; analysis of arcuated forms. (Second Term.) Vaulting and stereotomy.
  Mr. Nobbs.
- 5. Theory of Design. THIRD YEAR. (First Term.) Influence of material on design; the analysis and structure of pattern; the theory and use of colour. (Second Term.) The origin or Art; the moral and material; logic of decoration; theories of æsthetics. Mr. Nobbs. 6. Ornament and Decoration. Second and Third Years

together, in alternate years.

- A. (First Term.) Wrought iron work; cast iron and bronze; beaten metal work. (Second Term.) The juxtaposition of coloured materials; stained glass; mosaic; the use of marble; inlay, etc.
- B. (First Term.) Heraldry:—Rules, parts, theory, ancient and modern practice. (Second Term.) Stone carving; wood carving; terra cotta work; plaster work; furniture. Mr. Nobbs.
- 7. Theory of Planning. FOURTH YEAR. (First Term.) Domestic Art.—cottages, workmen's dwellings; tenements; villas, and country houses. (Second Term.) Public buildings.—hospitals; libraries; baths; schools; fire stations; churches, and public buildings. Mr. Nobbs.

8. Modern Architecture. (1800-1900.) FOURTH YEAR. (First Term.) The Gothic Revival; the Schools of Ruskin and Morris; the Free Classic School; modern tendencies. (Second Term.) The Official Architecture of Europe; the Academic movement in America; Civic Art; Canadian problems. Mr. Nobbs.

Courses 7 and 8 are complementary to one another.

9. Building Construction. Second Year. (First Term.)

Masonry; concrete; brickwork; carpentry for floors and roofs. (Second Term.) Joinery for doors, casement and sash windows, stairs, etc. Mr. Burgess.

Reference Books:—Rivington, "Building Construction"; Kidder, "Building Construction and Superintendence"; Clark, "Building Superintendence"; Martin, "Details of Building Construction"; Chandler, "Construction Details"; Mitchell, "Plates of Building Construction."

in this subject continuing the constructional side of the Art of Building commenced in the Second Year "Building Construction" class. These lectures will be provided by the Department of Civil Engineering.

Third Year. (First Term.) Materials, foundation, piers, arches, retaining walls, framed timber, roofs and floors.

(Second Term.) Iron roof truss, steel frame buildings, and fire-proof construction.

The Drawing period in connection with this course will be devoted to the designing of lumber-framed trusses and joints in iron-work. Mr. Mattice.

Reference Books: — Baker, "Masonry Construction"; Rivington, Building Construction."

Fourth Year. Special designs will be prepared for iron roofs and steel frame structures. Mr. Mattice.

Reference Books: — Baker, "High Office Buildings"; Greene, "Roofs and Bridges"; Merriman, "Theory of Structures"; Bovey, "Theory of Structures and Strength of Materials."

II. Hygiene. THIRD YEAR. (First Term.) Light and air, water, sanitary plumbing. Drain plans will be prepared. (Second Term.) Gas, electric light, heating and ventilation. A Heating plan will be prepared. Special lecturer to be appointed.

Reference Books: — Lister Sutcliffe, "Modern House Construction"; Stevenson and Murphy, "Public Health"; Carpenter, "Heating and Ventilating of

Buildings."

12. Professional Practice. FOURTH YEAR. (First Term.)
Conditions of contract; specifications; bills of quantities. (Second Term.) Building by-laws; architectural jurisprudence. Mr. Beullac.

## 2. Chemistry.

PROFESSOR:—J. WALLACE WALKER, M.A., PH.D.

ASSOCIATE PROFESSORS:—

Nevil Norton Evans, M.A. Sc.
Douglas McIntosh, A.M., D.Sc.

Lecturer:— F. M. G. Johnson, M.Sc.

R. S. Boehner, M.Sc.
A. F. Robertson, M.Sc.
Vernon R. Krieble, B.Sc.
Percy H. Elliott, B.Sc.

Professor of Organic and Biological Chemistry (Faculty of Medicine):—R. F. Ruttan, B.A., M.D.

Second Year. — Students in all the courses of Applied Science are required 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 formulæ and equations, the preparation and properties of the more important elements and their compounds, etc. They must also devote at least one morning or 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 in-

volve 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.

Text-book:—Holleman's Inorganic Chemistry.

Students in the Chemistry Course must do in addition a large number of preparations of the ordinary inorganic compounds during the first term, and a complete course of Qualitative Analysis during the second. They must also attend a tutorial class explanatory of the laboratory work.

Text-book:—A. A. Noyes' Qualitative Chemical Analysis. Third Year Lectures.

(a) Organic Chemistry.—Two lectures a week during the first term.

Text Book:—Holleman's Organic Chemistry, or Remsen's Organic Chemistry.

(b) Physical Chemistry.—Two lectures a week during the second term will be given on Vapour Densities, Molecular Weights, the Mass Law and the Phase Rule.

Text Book:—Walker's Introduction to Physical Chemistry.

(c) Inorganic Qualitative Analysis.—A course explanatory of the work done in the laboratory. One lecture a week during the first term.

Text Book:—A. A. Noyes' Qualitative Chemical Analysis.

- (d) Inorganic Quantitative Analysis. A course explanatory of the work done in the laboratory. One hour a week during the first term.

  LABORATORY.
- (e) Organic Chemistry.—A course on the preparation, detection and analysis of the commonest organic compounds.

Text Book:—Holleman's Laboratory Manual of Organic Chemistry.

(f) Inorganic Qualitative Analysis.—A complete course.

(g) Inorganic Quantitative Analysis.—An extensive course on gravimetric and volumetric methods, including Gas Analysis.

Text Book:—Talbot's Quantitative Analysis.

(h) Inorganic Quantitative Analysis.—A short course for students of Electrical Engineering.

Students in the Chemistry courses will omit (c), (f) and (h).

Students of Electrical Engineering take only (h).

Students of Metallurgy take (c), (d), (f) and (g).

Students of Mining take only (c) and (f).

## FOURTH YEAR LECTURES.

- (a) Organic Chemistry.—A systematic course. Two lectures a week.
- (b) Physical Chemistry.—The lectures are a continuation of those given during the Third Year and include the Kinetic Theory, Thermo-chemistry, the principles of Thermodynamics as applied to chemical action, Osmotic Phenomena and their application in deducing the Ionisation Theory of Solutions, a study of such physical properties of gases, liquids and solids as are known to depend on their chemical constitution, and Electro-Chemistry. Two lectures a week.

Books of Reference:—Ramsay's Text Books of Physical Chemistry.

- (c) Inorganic Quantitative Analysis.—A course on Mineral Analysis and on the Composition and Analysis of Iron and Steel. One lecture a week,
- (d) Industrial Chemistry. An extensive course on the leading chemical industries. Two lectures a week.
- (e) Applied Electro-chemistry.—Two lectures a week during the second term.

## LABORATORY.

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 methods of organic work. Those intending to devote themselves to Mineral Chemistry will omit the Organic Chemistry, but must study the more important physico-chemical methods.

Laboratory courses will also be provided for students who wish to make a speciality of any particular branch of Industrial Chemistry such as chemistry of oils, iron and steel analysis, bleaching, paper-making and manufacture of substances by electro-chemical and other methods.

# 3. Civil Engineering and Applied Mechanics.

PROFESSOR:—H. M. MACKAY, B.A., B.Sc.
ASSOCIATE PROFESSOR:—E. BROWN, M.Sc., M. ENG.
LECTURER:—C. BATHO, M.Sc.

DEMONSTRATORS: - 

H. B. MILLER, B.Sc.
M. G. HEPBURN, B.Sc.
G. McL. PITTS, B.Sc.
W. S. LEA, B.Sc.

- I. 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, 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 trusses, arches, arched ribs, masonry dams, foundations, earth works, and retaining walls.

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

The Laboratory Work (see page 328) is as follows:— Third Year.—During the Third Year a systematized course of laboratory instruction is given in which students carry out for themselves a series of tests upon engineering materials.

The course comprises:—

- (a) Linear measurements by Whitworth measuring machine, dividing engine, and micrometer gauges.
- (b) Calibration of extensometers, gauges, and the like.
- (c) Tension tests of long wires above and below the elastic limit.
- (d) Tensile and compressive tests of cast iron, wrought iron, steel, brass, copper, timber, stone, bricks, and cements.
- (e) Transverse tests of beams under different conditions of loading and fixing.
- (f) Shearing tests of iron, steel, timber, stone, and the like.
- (g) Torsional tests of metals.
- (h) Tests of materials under compound stress.
- (i) Tests of chains, wire cables, spikes, screws, and the like.
- (j) Pillar tests under various conditions of loading and fixing.
- (k) Determination of the various moduli of materials by static and dynamic methods.
- (l) Determination of centres of gravity, moments of inertia, and moments of resistance.
- (m) The testing of concrete and cement in accordance with standard specifications.

Fourth Year. — During the Fourth Year students are required to engage in a research upon the physical properties of a material of construction, with special reference to the form and position of such material in the structure.

2. Materials of Construction. — Elementary treatment of metallurgy of iron and steel—blast furnace, cast iron, wrought iron; crucible, Bessemer and open hearth processes; effects of impurities; heat treatment; principal alloys (nickel steel, tool steels, brasses and bronzes, white metals, etc.); discussion of standard specifications for iron and steel; considerations governing selection of materials; manufacture and properties of Portland and natural cements; limes; concrete; stone and brick masonry; principal kinds of timber used for engineering purposes; preservation of timber.

- 3. Structural Engineering.—Foundations; bearing power of soils; piles and pile driving; concrete piles; grillages; foundations under water; coffer dam, open dredging, pneumatic and freezing processes; examples in the design of beams, plate girders, columns, footings, piers and roof trusses; reinforced concrete; estimation of quantities from drawings; estimates of cost.
- 4. Graphics. General methods involving the use of the funicular and force polygons; determination of reactions, centres of gravity, bending moments, moments of inertia and moments of resistance; stresses in cranes, braced towers, roof trusses, and bridge trusses; three hinged arches, two hinged arches, masonry arches, abutments, etc.

5. Bridge Designing. — 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. Mr. Mackay and Mr. Brown.

6. Hydraulics. — The student is instructed in the fundamental laws governing the equilibrium of fluids, and in the laws of flow through orifices, mouthpieces, partially or wholly submerged 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, e.g., reaction wheels, pressure engines, vertical water wheels, turbines, pumps, etc. Mr. Brown.

Text Book:—Bovey's Hydraulics.

The laboratory work (see also page 323) will include the following:—

- (a) Flow through orifices. The determination of the coefficient of discharge, velocity, etc.
- (b) Flow over weirs.—The determination of the co-efficient of discharge with and without side contraction. Also the measurement of the section of the stream.
- (c) Flow through pipes.—The determination of critical velocities and of the effect upon the flow, of angles, bends, and sudden changes in section.
- (d) Impact.—The determination of the co-efficient 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.
- (f) The laboratory equipment is also available for any special hydraulic investigation.
- 7. Hydraulic Machinery.—The lectures in this course apply the principles of hydraulics to explain the construction and action of hydraulic presses, accumulators, lifts, rams, rivetting machinery, reciprocating pumps, multi-cylinder engines, workshop tools, turbines, centrifugal pumps, and the like. The construction of one or two types is considered in detail. Mr. Brown.
- 8. 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, stop-valves, 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; man-holes,

flush-tanks, catch-basins, etc.; materials used in construction; estimates of cost.

## 4. Descriptive Geometry.

Lecturers: - { C. H. McLeod, Ma.E. H. F. Armstrong. J. B. Harvey, M.Sc.

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 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; problems on straight line and plane; projections of plane and solid figures; curved surfaces and tangent planes; intersections of surfaces; axometric projections; shades and shadows. Mr. Amstrong.

Text Books: — Geometrical Drawing by C. H. McLeod; McLeod's Elementary Descriptive Geometry.

Third Year.—Mathematical perspective and perspective of shadows, etc.; photographic surveying; graphical determination of spherical triangles; spherical projections and the construction of maps. Mr. Harvey.

# 5. Electrical Engineering.

Professor:—R. B. Owens, M.A., E. E. D.Sc. Associate Professor:—L. A. Herdt, Ma. E., E. E. Lecturer:—C. V. Christie, B.Sc., M.A. Demonstrator:—

# Undergraduate Courses.

I. Continuous Currents and Commutating Machinery.—The theoretical consideration of continuous current flow in circuits of different kinds; the laws of electro-magnetism and of the

magnetic circuit; the action and principles of design of commutating and rectifying machinery. Required of students in Electrical Engineering.

T. and Th., 10-11.—Prof. Herdt. First and second term. Text Books:—Magnetic Induction of Iron and other Metals, J. A. Ewing; Dynamo Electric Machinery, S. P. Thompson.

2. Alternating Currents and Alternating Current Machinery. The theoretical consideration of variable current flow in circuits containing resistance, inductance and capacity under different conditions; the action and principles of design of synchronous and induction machinery. Required of students in Electrical Engineering. Must be preceded by course 1.

W., Th. and F., 11-12.—Prof. Owens. First and second terms.

Text Books:—Theoretical Elements of Electrical Engineering, C. P. Steinmetz; Elements of Alternating Currents, Franklin and Williamson; The Induction Motor, B. A. Behrend.

3. Electric Lighting and Power Distribution.—The Design and operation of central and isolated lighting and power plants; the design and construction of distributing lines; arc and incandescent lighting; the appliances of stationary motors to general power purposes. Required of students in Electrical Engineering. Must be preceded by course 1.

T. and W., 9-10, and F. 10-11.—Prof. Herdt. First term. Text Books:—Electric Lighting, F. B. Croker; Standard Handbook for Electrical Engineers.

4. Electric Traction.—Determination of the power required to accelerate and draw, at different speeds, loads under varying track and other conditions; car equipment as affected by nature of service; track construction; systems of distribution for urban and for heavy through traffic conditions. Required of students in Electrical Engineering. Must be preceded by course I.

T. and W., 9-10, and F. 10-11.—Prof. Herdt. Second term.

Text Books:—Standard Handbook for Electrical Engineers. Students are furnished with supplementary notes.

5. Electrical Designing—Detailed electric and magnetic calculations and complete drawings for a commutating machine, a synchronous machine and a transformer or an induction motor. Required of students in Electrical Engineering. Must be preceded by course I and taken in conjunction with course 2.

Thurs., 2-5.—Mr. Christie. First and second terms.

Text Books: — Hobart, Design of Continuous Current Machinery. Supplemented by MS. notes and data.

6. Electrical Engineering Laboratory.

(a) Includes such tests of direct current metering and controlling devices, dynamos, motors, boosters, motor generators, dynamotors, converters, open and closed coil, constant current machines and arc and incandescent lamps as illustrate the principles of their action and the limits of their proper use; also complete test of direct current isolated or central lighting or power plant. Required of students in Electrical Engineering. Must be taken in conjunction with or preceded by course 1.

T., Th. 2-5.—Prof. Owens, Prof. Herdt, Mr. Christie. First and second terms.

Text Books:—Testing of Dynamos and Motors, Chas. F. Smith. In addition, students are furnished with special laboratory notes and forms.

(b) Includes experiments on variable current flow in circuits of different kinds; tests of alternators, synchronous motors and converters, compensators, induction motors, transformers, frequency and phase changing apparatus, potential regulators, reaction coils, etc., and complete test of alternating or lighting or power plant. Required of students in Electrical Engineering. Must be preceded by course I, and taken in conjunction with course 2.

M., W. and F., 2-5. — Prof. Owens, Prof. Herdt, Mr. Christie. First and second terms.

Text Book:—Practical Alternating Current Testing, Chas.

F. Smith. Students are also furnished with special laboratory notes and forms.

7. Elements of Electrical Engineering for Third Year students in Mechanical Engineering and Fourth Year students in Civil and Mining Engineering and Transportation.

A general course in Electrical Engineering, treating of the laws of electro-magnetism; continuous and alternating current flow in various circuits; characteristics of direct and alternating current machinery; the fundamental principles of electric lighting and power distribution.

M. 11-12, W. 12-1.—Mr. Christie. First and second terms. Text Books:—Elements of Electrical Engineering, Franklin and Esty.

8. Electrical Engineering Laboratory for Third Year students in Mechanical Engineering and Fourth Year students in Civil and Mining Engineering and Transportation.

Includes tests of direct current metering and controlling devices, dynamos, motors, boosters, motor generators and constant current machines; experiments on variable current flow in circuits of different kinds; tests of alternators, synchronous motors and converters, induction motors and transformers.

Th. and Fri., 2-5 (one half class).—Mr. Christie. First and second terms.

Text Books:—Testing of Dynamos and Motors, Chas. F. Smith; Practical Alternating Current Testing, Chas. F. Smith.

# 6. English Composition.

LECTURER: -G. W. LATHAM, B.A.

In view of the importance of accuracy of expression in the case of those engaged in scientific or professional work, a course on English Composition is prescribed for all undergraduates of the First Year. Students who give evidence of having already reached the required standard of proficiency, by passing a special exemption examination, may be excused from attendance on this course. This special examination will

be held in the Molson Hall on Monday, September 21st, at 11 o'clock.

Students who are required to take this course will be assigned to a section which will meet weekly for practice and instruction in composition. The handbook used is the latest edition (1906) of Rhetoric and English Composition (Macmillan Co.), and every member of the class is required to provide himself with a copy.

Satisfactory results in class and essay work must be obtained before entry into the Second Year. All undergraduates of the First Year, whether exempt or not from attendance on the course, must pass the final examination.

Summer Reading. — During the vacation, undergraduates entering the Second Year will study Shakspere's Henry IV, Parts I and 2, and will be examined thereon at the beginning of their second session. The marks obtained in this examination will be reckoned in determining the relative standing at the sessional examinations at the end of the Second Year.

French students may substitute for the above the following:—

Corneille—Le Cid, Horace; V. Hugo—Hernani, Ruy Blas; Balzac—Eugenie Grandet.

Students will also be required to possess some knowledge of the lives of the above French authors.

Students who have already taken equivalent courses in this, or in any other university, may be exempted from the work prescribed for Summer Reading, on written application to the Dean. All others must pass the examination.

In 1908 this examination will be held on Saturday, September 19th, at 9 a.m., in the Molson Hall.

# 7. Freehand Drawing, Lettering, etc.

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 drawings in light and

shade, or as preparatory dimensioned sketches from which to make scale drawings.

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

# 8. Geology.

PROFESSOR:—F. D. ADAMS, PH.D., D.Sc., F.R.S. LECTURER:—J. AUSTEN BANCROFT, M.A. SESSIONAL LECTURER:—JOHN A. DRESSER, M.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 slides. In addition to the lectures there will be a demonstration each week.

Text Book: - Scott, An Introduction to Geology.

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.

In addition to the lectures, one afternoon a week during the second term will be devoted to practical work in the Petrographical Laboratory.

Text Book:—Harker, Petrology for Students.

Petrographical Laboratory — See page 326. This laboratory is open to Fourth Year mining students during the second term.

Ore Deposits, Economic Geology and Practical Geology.—
The nature, mode of occurrence and classification of ore deposits will first be taken up. A series of typical occurrences will then be described and their origin discussed. The more important non-metallic materials, e.g., fuels, clays, abasive materials, building stones, etc., will be similarly treated as well as questions of water supply, artesian wells, etc. The methods employed in carrying out geological and magnetic surveys and in constructing geological sections will then be taken up, with special studies in folding, faulting, etc.

The course will be illustrated by maps, models, lan-

tern slides and specimens.

Text Books: — Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States and Canada; Phillips and Louis, A Treatise on Ore Deposits.

Books of Reference:—The Reports of the Geological Survey of Canada, and the Monographs of the U. S. Geological Survey.

Canadian Geology.—A general description of the Geology and mineral resources of the Dominion.

Physiography.—The course will consist of a study of the principal types of land forms and their influence upon human development. Attention will be given more particularly to the practical bearing of the subject on engineering work. During the latter part of the course, a brief description of the salient physical features of Canada will be presented.

The course will be illustrated by maps, models and lantern slides.

Physical Geography and Climatology. — Geographical subdivisions of Canada; mineral areas; timber belts; wheat areas and water powers; irrigation; climatology and its relations to occupations and soil products.

This is a special course provided for the Fourth Year students in the Department of Railways. It will be illustrated by maps, models and lantern slides. Field Work.—The students in mining will receive a course of instruction in geological mapping and field work—extending over one week—in connection with the summer school of mining.

Note.—Students of the Mining and Chemistry courses take all the Mineralogy of the Third Year. Mining students take all the courses of the Fourth Year. Chemistry students take, in addition to the Geology of the Third Year, the Mineralogy of the Fourth Year.

# 9. Mathematics and Mathematical Physics.

PROFESSOR: -D. A. MURRAY, PH.D.

Associate Professor:—A. S. Eve, M.A., D.Sc.

C. Batho, M.Sc.
T. Ridler Davies, B.A.
Charles T. Sullivan, B.A.

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 tracing of curves, graphical illustrations and solutions, methods of computing, approximations, etc.

The courses of study are as follows:-

1. Geometry.—Exercises in Plane Geometry, including loci, transversals, etc., elements of Solid Geometry and of Geometrical Conic Sections. First Year (first term). Text Book:—Wilson's Solid Geometry and Conic Sections (Macmillan).

2. Algebra.—Miscellaneous theorems and exercises, exponential and other series, properties and solution of higher equations, complex numbers and vector algebra, graphical algebra with an introduction to Analytic Geometry. First Year (first term and part of second term). Text Book:—Dickson's College Algebra (Wiley).

3. Trigonometry.—Plane and Spherical. First Year (second term). Text Book:—Murray's Plane and Spherical Trigonometry (Longmans), with Bottomley's and Chambers's Mathematical Tables.

- 4. Analytic Geometry. The point, straight line, circle, parabola, ellipse and hyperbola, elements of geometry of three dimensions. First Year (latter part of second term), and Second Year (first term). Text Book:—Tanner and Allen's Analytic Geometry (American Book Co.).
- 5. Calculus.—Differentiation of functions of one or more variables, successive differentiation, tangents, etc., multiple points, asymptotes, curvature, maxima and minima, integration, with applications to areas, volumes, moments of inertia, etc. Second Year (first and second terms). Text Book:—Chandler's Calculus (Wiley).
- 6. Calculus.—Various applications, elementary differential equations. Optional class for students of the Third and Fourth Years.
- 7. Dynamics.—An elementary course in Kinematics, Kinetics, Statics and Hydrostatics. First Year (first term). Text Book:—Blaikie's Dynamics (J. Thin, Edinburgh).
- 8. Dynamics (Mechanics). Kinematics, Kinetics of a Particle, Statics. Second Year (second term).
- 9. Dynamics (Mechanics).—Kinetics of a rigid body, cen tres of pressure, etc. Third Year (first term).

# 10. Mechanical Engineering.

Professor:—R. J. Durley, B.Sc., Ma.E.

Assistant Professors:	C. M. McKergow, M.Sc.
Lecturers:	A. R. ROBERTS, M.Sc. J. BLIZARD, B.Sc.
DEMONSTRATORS:	{
- DRAHGHTOMAN:	

#### Undergraduate Courses.

1. Mechanics of Machines. — Second Year.—M., 11; W., 11; Th., 12. Required of all engineering students.

Kinematics of Machines.—Constrained motion; kinematic pairing; velocity and acceleration in mechanisms; centrodes; analysis and classification of simple mechanisms, including the

quadric crank chain, the slider crank chain and various wheel trains; design of involute wheel-teeth.

Dynamics of Machines.—Work and power; the power and turning effort of prime movers; inertia and kinetic energy of revolving and reciprocating parts of machines.

Text Book:—Durley's Kinematics of Machines (Wiley). Third Year.—Monday, 9; Wednesday, 9. Required of stu-

dents in Mechanical and Electrical Engineering.

Mechanisms involving chamber crank trains and chamber wheel trains; helical, skew, and worm gearing; relative motion and displacement; the mechanism of the simple slide valve and of expansion valves; solution of valve setting problems; the function and dynamics of engine fly-wheels and governors; elements of engine balancing.

Text Books:—Durley's Kinematics of Machines (Wiley);

Ewing's Steam Engine (Camb. Univ. Press).

Fourth Year.—Tu., 9; Wed., 9. Required of students in Mechanical Engineering.

Friction and lubrication; gyrostatic action in machines; further treatment of engine governors; primary and secondary balancing of engines; knocking and shocks in reciprocating machinery; vibration.

Reference Books:—Goodman's Mechanics Applied to Engineering; Dalby's Balancing of Engines.

2. Machine Design.—Third Year.—Thu., 12; Fri., 12. Required of students in Mechanical and Electrical Engineering. Principles of the strength of materials as applied to the design of the parts of machines; fastenings used in machine construction, bolts, screws, keys, cotters, rivets and rivetted joints; journals and bearings; shafts and couplings.

Fourth Year.—(M., 9; W., 9).—Required of students in Mechanical and Electrical Engineering.—Design of wheel gearing; belts, ropes and pulleys; pipes and pipe joints; cylinders; eccentrics, piston and piston rods, connecting rods, cross-heads and other engine details; flywheels; design of valves and valve gears.

Text Book: — Unwin's Machine Design (Longmans, 2 Vols.).

Book of Reference: - Low and Bevis' Machine Drawing

and Design (Longmans).

3. Mechanical Drawing and Designing.—First Year.—Wed., 2; Second Year, Thu., 2. Required of all engineering students. Elementary principles of mechanical drawing and draftsmanship; preparation of working drawings of simple machine details; making dimensioned sketches of machines and their parts; preparation of tracings.

Third Year (Tu. and Fri., 2).—Required of all engineering students.—Designing of simple machine parts; more difficult exercises in mechanical drawing; making assembly drawings.

Fourth Year (Mon. and Thu., 2).—Required of students in Mechanical Engineering.—The complete design of a machine, such as a steam engine, a pump, or a machine tool, is worked out, and the requisite working drawings and tracings are prepared.

4. Thermodynamics.—Third Year.—(Tu. and Wed., 10).
—Required of students in Mechanical and Electrical Engineering.—Fundamental laws and equations of Thermodynamics; their application to gases and to vapours, saturated and superheated; efficiency of ideal heat engines; properties of steam, and elementary theory of the steam engine; elementary theory of gas and hot air engines.

Fourth Year.—(M., 11; Wed., 11).—Required of students in Mechanical Engineering.—Theory of reversed heat engines and refrigerating machines; entropy and entropy-temperature diagrams; more advanced theory of internal combustion engines; a thermodynamic study of the steam engine, including the behaviour of steam in the cylinder; economy of steam engines; influence of size, speed, and rate of expansion; compound expansion; the steam jacket; the testing of steam engines; flow of gases and vapours; theory of steam turbines.

The whole course is carried out as far as possible in connection with the experimental work of the thermodynamic laboratory.

Text Books:—Ewing's Steam Engine (Cambridge Univ. Press); Peabody's Tables of Properties of Steam (Wiley). Book of Reference:—Stodola, The Steam Turbine (trans. Locaenstein), (Van Nostrand).

5. Mechanical Engineering.

(A) General course in Mechanical Engineering of Power Plants and Prime Movers. Required of all engineering students except those in Mechanical Engineering.

Third Year. (Tues., 12; Fri., 10).

Fuel and combustion, steam boilers and steam production; corrosion and defects of boilers; boiler plants and accessories, principles of selection and arrangement; the steam engine—estimation of power developed, economy of steam machinery; the indicator; condensers, pumps and accessories; principles of design in steam plants; gas engines and gas producer plants, their selection, economy and arrangement; general conditions governing location and design of power installations.

Text Books: — Meyer, Steam Power Plants (McGraw); Duncan, Steam and other Engines (Macmillan).

(B) Course required of all students in Mechanical Engineering.

Third Year. (Tues., 12; Fri., 10.)

Fuel and combustion; steam boilers and steam production; boiler installation and operation; the indicator; the steam engine, steam distribution and economy; steam turbines; condensers and auxiliary machinery in steam plants; gas engines and gas producer plants; pumping, air compressing and refrigerating machinery.

Fourth Year. (Wed., 9; Fri., 9.)

First Term.—Arrangement, design and operation of Power Plants worked by steam or gas engines; effect of requirements for lighting, heating and power distribution.

Second Term.—A student may take one of the following courses:—

(a) Locomotive Engineering. — Train resistance, tractive

force in locomotives; locomotive performance and rating; brakes; fuel and water in locomotive work.

- (b) Marine Engineering.—Ship resistance and propulsion; efficiency and performance of marine machinery and propellers; arrangement and operation of main and auxiliary machinery for marine work.
- (c) Heating and Ventilation of Buildings. Loss of heat from buildings; radiating surfaces; design and operation of heating systems; principles of ventilation; fans and blowers; design of duct systems; temperature and humidity control.

Text Books:—Ewing, The Steam Engine (Camb. Univ. Press); Meyer, Steam Power Plants (McGraw); Henderson, Locomotive Operation (Railway Age); Seaton. Marine Engineering (Griffin); Snow & Nolan, Ventilation of Buildings (Van Nostrand); Baldwin, Heating (Wiley).

Books of Reference:—Peabody and Miller, Steam Boilers (Wiley); Dowson and Larter, Producer Gas (Longmans); Taylor, Resistance of Ships (Whittaker); Carpenter, Heating and Ventilating Buildings (Wiley).

6. Laboratory Courses.

Third Year.—(M., 2; Sat., 9.) Required of all engineering students.

- (a) Thermodynamic Laboratories.—Testing and calibration of indicators, brakes and other measuring instruments; tests as to economy and performance of a steam engine and boiler, of a gas engine and of an air compressor.
- (b) Mechanical Laboratory.—Testing and experimental investigation of:—The efficiency of belt and other transmission gearing; the properties of lubricants; the operation of brakes and dynamometers.

Fourth Year. (Tu., 10; Fri., 10). Required of students in Mechanical Engineering.

(a) Thermodynamic Laboratories. — Experimental investigations illustrating the theory of steam engines, gas engines and producers; efficiency and action of steam jackets and condensers; efficiency of air compressing and pumping machinery; test of a complete steam or gas power plant.

(b) Mechanical Laboratory. — Experimental work on:— Engine balancing and vibration; action of governors; performance of fans and blowers; power absorbed by machine tools; efficiency of hoisting machinery.

Credit for work done in the Laboratories is dependent on the presentation of clear and accurate reports of the experimental and other work performed by the student.

7. Workshop Practice. (See page 253.)

# 11. Metallurgical Engineering and Metallurgy.

Professor:—Alfred Stansfield, D.Sc., A.R.S.M.
Demonstrator:—Harold H. Gray, B.Sc.
Research Fellow:—Gordon St. G. Sproule, B.Sc.

UNDERGRADUATE COURSES.

Third Year.—(I) General Elementary Metallurgy.—The lectures include: — (I) A short account of the properties, composition and uses of the common metals and alloys. (2) A course on Fuel, including the properties and uses of solid, liquid and gaseous fuels; the preparation of artificial fuels such as charcoal, coke and producer gas; pyrometry, calorimetry, refractory materials and furnaces. (3) An outline account of the metallurgy of iron, steel, copper and lead.

Two lectures a week during first term for Metallurgical, Mining and Chemical students.

Text Books:—A. H. Sexton, "Fuel and Refractory Materials;" Huntington and McMillan, "Metals, their properties and treatment."

(2) Fire Assaying.—The lectures give an account of the furnaces, balances and other appliances used in assaying; the sampling and preparation of ores; fluxes and reagents, and the methods used in assaying gold, silver and lead ores, copper and copper mattes, gold and silver bullion and base bullion.

In the laboratory the students learn to assay gold, silver and lead ores, copper mattes and base bullion, and when time permits, copper, and gold and silver bullion. Metallurgical students can complete this work in their Fourth Year. One afternoon a week during the session, for Metallurgical, Mining and Chemical students.

Reference Books:—R. W. Lodge, "Notes on Assaying"; C. H. Fulton, "Manual of Fire-Assaying."

(3) Metallurgical Calculations. — This is an introductory course on the application of exact chemical and physical laws to metallurgical operations such as the combustion of fuel, the smelting of ores and the construction and heating of furnaces.

One lecture a week for Metallurgical students.

Text Book:—J. W. Richards, "Metallurgical Calculations," Vol. I.

- (4) Metallurgical Works.—A short course in the second term for metallurgical students as a preparation for the field work in Metallurgy.
- (5) Metallurgical Laboratory.—One period a week during the first term for metallurgical students. The course includes instruction in pyrometry, calorimetry and the microscopic examination of metals.

FOURTH YEAR.—(6) The Metallurgy of Iron and Steel, including an account of iron ores and their preparation; the iron blast furnace, its construction and operation; pig iron and its properties; wrought iron, its manufacture and properties; Bessemer and open-hearth steel making; the properties and heat treatment of steel.

Two lectures a week during the first term for Metallurgical and Mining students.

Text Book:—Bradley Stoughton, "The Metallurgy of Iron and Steel."

Reference Books:—H. O. Hofman, "Metallurgy of Iron and Steel"; T. Turner, "Metallurgy of Iron"; H. M. Howe, "Metallurgy of Steel"; H. H. Campbell, "Manufacture and Properties of Iron and Steel."

(7) The Metallurgy of Copper, Lead, Gold and Silver.— In these lectures the production of copper and lead from their ores by furnace methods is considered in detail. The refining of these metals by furnace and electrolytic methods and the parting and refining of gold and silver are treated in outline.

Two lectures a week during the second term for Metallurgical and Mining students.

Text Books:—E. D. Peters, "Principles of copper smelting"; H. F. Collins, "Metallurgy of Lead."

Reference Books:—E. D. Peters, "Modern Copper Smelting"; H. O. Hofman, "Metallurgy of Lead"; H. F. Collins, "Metallurgy of Silver"; T. K. Rose, "Metallurgy of Gold."

(8) Electro-Metallurgy. — This course of lectures is restricted to a consideration of the principles and construction of electric furnaces, and their uses for smelting and refining metals. Other parts of the subject are treated in the lectures on Electro-chemistry (see Chemistry, page 215) and in course (9). One lecture a week during the second term for Metallurgical, Mining and Chemical students.

Text Book:—A. Stansfield, "The Electric furnace."

(9) Metallurgy for Metallurgical students.

Two hours a week during the session.

The course will include some or all of the following:-

- (a) Alloys.—The theory of solutions applied to metals and metallic alloys. The composition, manufacture and uses of the common alloys.
- (b) Metallurgical Calculations.—A continuation of course (3), applying mathematical treatment to the more important metallurgical processes and furnaces.
  - (c) Metallurgy of Zinc, Nickel, Cobalt, Platinum etc.
- (d) Electro-Metallurgy. The electrolytic separation and refining of copper, lead, nickel, gold, silver, etc.
  - (e) Hydro-Metallurgy of copper, silver, nickel, etc.
  - (f) Metallurgical Construction and Design.
- (g) Specifications and Testing of steel and other metals, refractory materials, fuels, etc.
- (10) Colloquium. One hour a week during the second term is given to informal discussion of research and other

work being done in the department, and to other topics of metallurgical interest.

- (11) Metallurgical Design. This includes designing and drawing metallurgical furnaces and plants. Three periods a week during the second term for Metallurgical students.
- (12) Metallurgical Machinery.—One hour a week during the second term for Metallurgical and Mining students (see Mining, page 239).
- (13) Laboratory.—One whole day per week is given to work in the Ore Dressing and Metallurgical Laboratories in the first term. This time is evenly divided between ore dressing and metallurgy, and certain typical operations in each are carried out either as demonstrations, or by groups or individual students.

One whole day and one half-day in the laboratory in the second term is given to thesis work, and in this individual work each student is permitted to elect between ore dressing and metallurgy, and, when practicable, to select his own special subject.

The following metallurgical exercises will be carried out, as far as time will permit, during the first term, either as demonstrations, individual work, or work in groups. During the second term, any of these or some similar exercises may be selected by the students as their thesis work:—(a) Roasting a sulphide or arsenical ore on a small scale and also in the large roasting furnaces; (b) formation and properties of copper or lead mattes and slags; (c) smelting a copper or lead ore in the water jacketed blast furnace; (d) melting and casting certain metals and alloys; (e) the use of the electric furnace; (f) leaching a copper or silver ore; (g) elementary exercises in some of the following:—pyrometry, calorimetry, flue gas analysis, tests of refractory materials, microscopic examination of metals, heat treatment of iron or steel.

The details of the ore dressing work are given in Mining (8), page 239.

METALLURGICAL EXCURSIONS AND SUMMER SCHOOLS.

Students attending the courses in Mining and Metallurgy are required to attend the Summer School in Mining (see page 241), at the end of their Third Year.

At this school, when practicable, a portion of the time is devoted to a thorough examination of some metallurgical establishments.

In addition to this, excursions may be made by the class from time to time to such metallurgical works as are within reach.

(For description of Metallurgical and Assaying Laboratories, see pages 323 and 324.)

# 12. Mineralogy.

LECTURER: - RICHARD P. D. GRAHAM, B.A.

THIRD YEAR:-

Mineralogy. — Lectures and demonstrations illustrated by models, specimens and lantern slides. Among the subjects discussed are: crystallography; physical properties of minerals dependent upon light, electricity, state of aggregation, etc.; chemical composition, calculation of mineral formulæ, 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, particular attention being paid to those which are important as rock constituents and to the economic minerals of Canada.

Students in the Chemistry Course will also take the following subjects:—Measurement of the angles of crystals with the reflection goniometer; projection of crystal forms; calculation of axial ratios of crystals; drawing of crystal forms; use of the polarizing microscope; axial angle apparatus, etc.

#### 13. Mining Engineering.

Professor:—John Bonsall Porter, E.M., Ph.D., D.Sc. (Hon.).
Assistant Professor:—John W. Bell, M.Sc.
Fellow in Mining:—W. J. Dick, B.Sc.
Demonstrator in Mining:—H. Graham Carmichael, B.Sc.
Special Research Assistants:—Edgar Stansfield, M.Sc. (Victoria)

#### UNDERGRADUATE COURSES.

THIRD YEAR.—(1) Mining Engineering.—The principles and practice of mining.—Prospecting, shaft sinking, drifting, simple mining methods, etc. (Two lectures per week in the second term. This course is continued in the Fourth Year. See Mining 4, page 238.)

(2) Ore Dressing.—The theory and practice of ore dressing and coal washing.—The forms in which ores occur and the effect of mixture, impurity, etc.; the theoretical considerations affecting mineral separations; the general mechanical operations involved. Dressing Machinery—breakers, stamps, rolls, screens, jigs, vanners, tables, washers, buddles, magnetic separators, etc. (Two lectures per week in the second term and laboratory. This course is continued in the Fourth Year. See Mining 6, page 239.)

(3) Ore Dressing Laboratory.—Simple tests of ores, sands and gravels, by means of pan, vanning shovel, hand jig, magnet, classifier, etc. (One afternoon per week in the second term. Further laboratory work in the Fourth Year, see Mining 8, page 239.)

FOURTH YEAR.—(4) Mining Engineering.—The principles and practice of mining.—Excavation, explosives and blasting, rock drills, coal cutters, deep wells, diamond drilling, etc.; gold washing, hydraulic mining and gold dredging, open cast mining and quarrying, underground work, developing, methods of mining, timbering, hauling, hoisting, draining, pumping, lighting, ventilating, etc.; mine accidents and their prevention; general arrangement of plant, administration, stores and

dwellings; examination and valuation of mines and mineral properties and mine reports. (Two lectures a week.)

- of mechanical and electrical engineering to mining, ore dressing and metallurgy.—Machinery for haulage, hoisting, pumping, ventilating, etc. Mine power plants, power transmission, tramways, cable ways, etc. Compressors, blowing engines, conveyors, cranes, etc. Mine and mill buildings, head frames, ore binns, lay out of plant, etc. (Two lectures a week and twenty-five afternoons in the Designing Room).
- (6) Ore Dressing and Milling.—Continuation of the ore dressing course of the Third Year; concentration plants, coal breakers and washers, dry concentration, amalgamation, gold and silver milling, cyaniding, chlorinating, etc. (Two lectures a week in the first term.)
- (7) Mining Colloquium.—One hour a week in the second term is given to informal discussion of the work being done in the department and to other matters relating to mining, ore dressing and metallurgy. Students are required to take the leading part in these discussions.
- (8) Laboratory.—Two mornings per week in the first term and one morning and two afternoons per week in the second are given to the ore dressing and metallurgical laboratories. In the first term this time is evenly divided between Ore Dressing and Metallurgy, and certain typical operations in each are carried out. In the latter part of this term each student is permitted to choose an individual subject or thesis, and the whole of the laboratory time in the second term is given to this thesis work.

The set exercises in Ore Dressing comprise a series of experiments in crushing, classifying, jigging, slime treatment, magnetic separation, and amalgamation, and include a complete trial run of the five-stamp battery on a free milling gold ore.

The subjects available for thesis work are very numerous, and range from purely theoretical investigations in classifica-

tion, concentration, etc., to the experimental determination of the best methods of treatment of ores and coals. Over one hundred different lots of ore are available, and the quantities are sufficient for work on a comparatively large scale. New ores are constantly being secured.

Text Books:—No set text books are used, but students are recommended to freely consult the following works of reference, in addition to the special references given from time to time:—Sir C. LeNeve Foster's Ore and Stone Mining, H. W. Hughes' Text Book of Coal Mining; Boulton's Coal Mining; Saunders's Mine Timbering; Ihlsing's Manual of Mining; R. H. Richard's Ore Dressing; T. A. Rickard's Stamp Milling of Gold Ores; H. Louis' Handbook of Gold Milling; T. K. Rose's Metallurgy of Gold; M. Eissler's Metallurgy of Gold; H. F. Collins' Metallurgy of Silver; James' Cyanide Practice; The Coal and Metal Miners' Pocket-book.

#### LABORATORIES.

During the first three years of the course the students do systematic work in the several workshops and laboratories of the other departments. During the last half of the Third and the whole of the Fourth Year they spend a large proportion of their time in the special laboratories for Ore Dressing and Metallurgy. (See pp. 323 and 324). In these, the general method is first to conduct before the whole class a limited number of important typical operations, and then to assign to each student certain methods which he must study out in detail, and upon which he must experiment and make written report. In this work he is guided by the professors and demonstrators, and assisted by the other students, whom he must in turn assist when practicable. In this way every student acquires detailed knowledge of certain typical operations and a fair general experience in many of the important methods in use.

ILLUSTRATIONS, MUSEUMS, SOCIETIES, ETC.

In addition to a large series of lantern slides, the department owns a collection of over four thousand photographs

and other illustrations. This collection is constantly being enlarged.

The Museums of the building contain suites of ores, concentrates, fuels and metallurgical materials, models of mines and furnaces, and collections of finished products.

The McGill University Mining Society meets weekly or fortnightly to read and discuss papers by graduate and student members, and from time to time to hear lectures given by gentlemen eminent in the profession. Special arrangements are made whereby students may attend meetings of the mining section of the Canadian Society of Civil Engineers, and members of the Mining Society are privileged, for a nominal fee, to become student members, and to receive all the publications of the Society.

The Society has also been made a students' section of the Canadian Mining Institute, and its undergraduate members are therefore student members of the Institute, and receive all its publications. Papers read before the Mining Society may be entered in competition for any students' prizes offered either by the Can. Soc. of Civil Engineers or by the Can. Mining Institute. (See pp 62 and 186.)

# FIELD SCHOOL IN MINING.

The summer vacation class instituted in 1897 is now a fixed part of the course. All students of Mining in regular course are required to attend this class at the end of the Third Year.

The school lasts about six weeks. Of this period about one-sixth is given to field work in geology, one-half or more to mining work proper, and the remainder, when practicable, to an examination of ore dressing and milling plants and metallurgical establishments. The professor of mining and his assistant go with the party and hold daily demonstrations or classes. The students take notes and sketches on the ground, and afterwards are required to work up these notes and to submit a formal report on some part or the whole.

The work in Geology and Metallurgy is carried on by officers of these departments, who attend the school for this pur-

pose, and in certain cases it is found practicable to permit students especially interested in these subjects to substitute additional work in them for a portion of the Mining.

During the last ten years these field parties have visited British Columbia twice, Nova Scotia thrice, Pennsylvania twice, Michigan, Newfoundland and Ontario once each. In 1907 the work was done in the Cobalt district of Ontario and in British Columbia.

The instruction given during this field course is free to all mining, students, the only expense to them being the cost of board, lodging, and railway fares. These expenses are kept as low as is practicable and are in part met by the income of a fund provided by Sir William Macdonald, from which deserving students who require aid can also have money advanced them by applying to the Professor of Mining.

#### 14. Physics (Experimental.)

LECTURER: -H. L. BRONSON, PH.D.

Demonstrators:
R. W. Boyle, M.Sc.
(Senior Demonstrator.)
G. W. Shearer, B.Sc.
F. H. Day, B.A. (Boston).
F. W. Bates, B.A.

#### Undergraduate Courses.

The instruction includes a fully illustrated course of experimental lectures on the general principles of Physics (embracing, in the First Year, The Laws of Energy—Heat, Light, and Sound; in the Second 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.

FIRST YEAR. — Three hours per week spent in practical measurements in the Macdonald Physical Laboratory in conjunction with the lecture courses and in accordance with the following outline:—

Heat.—Construction and calibration of thermometers; melting and boiling points; air thermometer; expansion of solids, liquids and gases; calorimetry; pyrometry.

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.

Text Books: — Watson (Longmans); Tory and Pitcher, Laboratory Manual.

SECOND YEAR.—Magnetism and Electricity.—Measurements of pole strength and moment of a magnet; the magnetic field; methods of 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.

Text Books: — Watson (Longmans); Tory and Pitcher, Laboratory Manual.

An additional course of six weeks, involving four laboratory periods per week with lectures, will be given in May and June.

THIRD YEAR.—Students of Electrical Engineering will continue their work in the Physical Laboratory in the Third Year. 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.

#### ADVANCED COURSES.

The following are some of the sections in which special provision has 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; thermo-electric pyrometers.

Calorimetry:—Mechanical equivalent of heat; variation of specific heat and temperature; latent heat of fusion and vaporisation; heat of solution and combustion; electrical methods; radiation and conduction of heat with special methods and apparatus; dynamical theory of gases; viscosity; surface tension; variation of properties with temperature.

Light.—Photometric standards; spectro-photometry; theory of colour vision; spectroscopy and spectrum photography; compound prism spectrometers; six inch and 2½ 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 bat-

teries; resistance of electrolytes; polarisation; electric discharge in gases and high vacua; dielectric strength; behaviour of insulators under electric stress, specific inductive capacity; alternating currents of high frequency and voltage; electrical waves and oscillations; conductivity of gases.

Radioactivity. — The Laboratory possesses a considerable stock of Radium, and a large amount of apparatus originally designed by Professor Rutherford for investigations in this subject. During the second term a course of lectures in Radioactivity will be delivered by Professor Eve.

# 15. Surveying and Geodesy.

PROFESSOR:—C. H. McLeod, Ma. E.
Lecturer:—J. B. Harvey, M.Sc.
Demonstrators:—E. O. Temple Piers, B.Sc.

This course is designed to give the student a theoretical and practical training in the methods of plane and geodetic surveying, in the field work of engineering operations, and in practical astronomy. The lecture course is divided as follows:—

SECOND YEAR.—Chain and angular surveying; the construction, adjustment, use and limitations of the transit, level, micrometer, compass and minor field instruments; topography; levelling; contour surveying; general land systems of the Dominion and Provinces. Mr. Harvey.

THIRD YEAR. — Theory and use of office and field instruments; theory of transition curves; hydrographic surveying; the use of the plane table; mining surveying; barometric and trigonometric levelling; elements of geodetic surveying; elements of practical astronomy. Professor McLeod.

FOURTH YEAR.—Practical Astronomy:—The determination of time, latitude, longitude and azimuth. Geodesy:—Figure of the earth, measurements of base lines and triangulation systems; adjustment and reduction of observations. Professor McLeod.

Field Work.—The students are required to carry out the following work:—

SECOND YEAR.—(1) A farm survey, using chain and compass; (2) a compass and micrometer survey; (3) a detail survey, using chain and offset; (4) levelling; (5) transit work.

THIRD YEAR. — (I) Level and transit practice, including the adjustments of the instruments; (2) a survey and location of a railway line, with determination of topography and contours and subsequent staking out for construction; (3) a stadia survey; (4) a hydrographic survey of a river channel, including measurement of discharge; (5) a survey at night illustrating underground methods; (6) astronomical observations with sextant and engineer's transit.

Fourth Year. — (1) Determination of latitude (a) by transit and sextant observations on Polaris, (b) by zenith telescope, (c) by noon observations with transit and sextant; (2) determination of azimuth, (a) by equal altitude observations of the sun, (b) by observation of elongation of Polaris, (c) by observation of a circumpolar star with engineer's transit, (d) by means of solar attachments and solar compass; (3) determination of time, (a) by equal altitude observations of the sun with sextant and transit, (b) by observations of the meridian passage of stars with astronomical transit; (4) determination of longitude by clock comparisons and by lunar observation; (5) base line measurements; (6) precision levelling; (7) measurement of angles by geodetic methods; (8) plane table surveys; (9) special problems in railroad track work.

All students are required to keep complete field notes, and to prepare maps, sections and estimates from their own surveys. This office work is principally done during the regular session.

Field work is required of all students of the Second Year (except those taking the Practical Chemistry Course), of students of the Third Year in the courses of Civil and Mining Engineering and in Transportation, and of the Fourth Year in

the Civil Engineering Course. The work will begin in 1908 on 24th August, and will continue for four weeks.

The following determinations of the constants and errors of surveying instruments are made in the geodetic laboratory (for equipment, see page 322) by the Fourth Year students in the Civil Engineering Course:—

Measurement of magnifying power;
 errors of graduation;
 measurement of eccentricity of circles;
 determinations of errors of run of theodolite microscopes;

(5) investigation of the errors of graduation of a standard bar; (6) graduating scales with the dividing engine, and comparison thereof on the comparator; (7) investigation of the errors of graduation of circles on the circular comparator; (8) determination of the constants of steel tapes; (9) investigation of the graduation errors of steel tapes on the fifty-foot comparator; (10) determination of the scale value of level vials; (11) investigation of the accuracy of barometers.

The equipment of the surveying department comprises the following, in addition to the apparatus of the observatory and geodetic laboratory:-Fifty-two transit theodolites by various makers, with solar and mining attachments; a photo-theodolite; two 8-in. alt-azimuths; nineteen dumpy and eleven wye levels; two gradient-telemeter levels; hand levels and clinometers; three precision levels; fifteen surveyor's compasses; one miner's dial; three prismatic compasses; pocket compasses; marine sextants; artificial horizons; box sextants; two reflecting circles; seven plane tables; six current meters; Rochon micrometers; double image micrometers; 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, planimeters, 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.

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

### 16. Department of Railways.

PROFESSORS:—

H. O. KEAY, B.Sc. (Mass. Inst. Tech.)

V. I. SMART, B.A. (Queen's).

Lecturers:—

MR. HERBERT MARTIN.

MR. A. A. GOODCHILD.

INSTRUCTORS:—

MR. H. F. MILLER.

MR. A. W. YOUNG.

THIRD YEAR. (OPERATING AND EXECUTIVE.)

Economics.—Economic theory, with special reference to the organization of modern commerce and industry, railways and their development, essay writing, the preparation of reports and discussion of practical problems.

Elementary Law.—This course is intended to present such an outline of the law as will be useful to business men, with a more detailed study of the law affecting railroads. The main topics of general law dealt with will be elementary notions of jurisprudence, explanation of legal terms, the franchise and an outline of the law of real property, contracts, torts and commercial paper.

In the more special part the Railway Act will be explained and an outline given of the law of common car-

Special attention will be given to such subjects as expropriation, damage suits against railroads, and the more usual forms of contracts with carriers. Dr. Walton.

English.—The preparation and criticism of reports on stated subjects, the object being to acquire a clear and accurate style. Mr. Latham.

Freight Service.—The freight department and the methods of conducting it, records, etc.; a full explanation of the methods and means of handling freight. Mr. Martin.

Graphical Statics.—Problems in beams, cranes, derricks, roof trusses, car-framing, etc. Mr. MacKay.

Railway Engineering.-History of Canadian Railways; the Railway Act of 1903; the conditions governing projected railway lines; the railway corporation; effect of location on volume of traffic; estimate of probable traffic; economic consideration of distance, curvature and grade; relative importance of grades; train resistance; equipment; limiting grades and curvature; trunk and branch lines; the reconnaissance for route; organization and records; preliminary survey; field work, organization and equipment; maps and office work; location; curves; vertical curves; transition curves; equating curves; virtual profile, maximum grades; ruling grades; rise and fall; cross sections; estimates and computation of quantities; comparison and capitalization of two lines; cost of surveys; construction; earthworks; form of excavations and embankments; earthwork surveys; computation of volume; formation of embankments; computation of haul; cost of earthwork; trestles; pile and framed trestles; floor systems; openings; culverts and minor bridges; ballast; rail; rail fastenings; ties; switches and crossings; switch construction; mathematics of switch design; miscellaneous structures; Yards and Terminals.

Drafting.—From notes, the paper location of a railway; maps and profiles; earthwork diagrams; switch design; yard design. Mr. Smart.

For list of Reference Books, see p. 252 (Fourth Year Railway Engineering).

Railway Mechanical Engineering.—Elementary course on the steam engine, steam boilers, power plant equipment, steam turbines, gas engines, compressed air and elementary

locomotive construction and operation. Mr. Keay. Text Book:—Duncan's Steam and Other Engines (Macmillan).

Mechanical Engineering Laboratory.—Experiments relative to the pressure and temperature of saturated steam, gauge testing, valve setting, trials upon steam engine, air compressor, steam pumps and gas engine, boiler trials, and air brake work. This course is supplemented by visits to power plants and locomotive shops. Mr. Keay.

Railway Organization and Elements of Accounting.—Organization and Work of the various departments; duties of officers, accounting. (A course preparatory to that of the

Fourth Year). Mr. Goodchild.

Strength of Materials.—Study of the strength and resistance of materials as applied to beams, columns, shafts, foundations, etc., with laboratory work. Mr. MacKay.

Structural Engineering.—Foundations; bearing power of soils, piles, and pile driving; open dredging, pneumatic and freezing processes; design of beams, girders, columns, footings, piers; taking off quantities from drawings; estimates of cost; drafting room work. Mr. MacKay.

Shorthand.—Mr. Young. Telegraphy.—Mr. Miller

Note.—Students are required to follow systematic courses in shorthand and telegraphy throughout the Third and Fourth Years.

FOURTH YEAR. (OPERATING AND EXECUTIVE.)

Accounting.—The principles of accounting, a development of the course of the Third Year. Earnings and expenses; shop material and cost; labor and methods of paying for same; statements, their nature and value. Mr. Goodchild.

Economics.—Transportation Economics, including the theory of railway rates, railway commissions, taxation of railways, government ownership and control, the treatment of transportation problems in Europe and America, etc. Attention will be paid to questions closely connected with transportation in Canada, such as the relative powers of

the Dominion and Provincial Governments, the tariff, immigration, government aid to railways, public lands and immigration. *Essays* connected with the above questions will be required. Dr. Hemmeon.

Electrical Engineering.—For details, see page 223. (New course for all Fourth Year students.)

English.—Continuing the work of the Third Year. Mr. D. G. Campbell.

Operation.—Organization of Conducting Transportation Department, historical sketch of the development of train dispatching in America, historical sketch of the development of the control of train movement in Europe, Conducting Transportation Expenses, standard time, the American Railway Association, formation of time tables, standard train rules, rule for movement of train on single track, rules for movement of trains on double track, general rules covering the operation of trains and handling of freight and passengers, clearance cards and other blanks, station service, yard service, road service, duties of dispatchers and operators. Mr. Smart.

Signals.—Block signalling, manual systems, automatic systems, estimates and plans: Mr. Smart.

Interlocking.—Economic considerations, the different forms of mechanical interlocking machines, the locking sheet, dog charts, the lead out, the ground connections, switch and signal connections, the cabin, power machine, electropneumatic, all electric, costs, interlocking of terminals and yards, electrical apparatus in connection with mechanical machines, construction and maintenance, organization of signal department, records and reports. Mr. Smart

Drafting. — Design of crossing lay out, making of locking sheets and dog charts, block signal location plans, design of switch and signal connections.

Books of Reference: — Adams, Block Signalling; Wilson's Mechanical interlocking for Railways; Dere's Block Signal Operation; Rules of the London North Western Railway; American Railway Assoc. Standard Code; Manual of recommended practice; American Railway engineering and maintenance of Wayout Assoc.; Lavorack's Locking.

Passenger Service.—The passenger department: its organization, methods and general principles governing passenger business; baggage system; mail and express. Mr. Martin.

Physical Geography and Climatology. — Geographical subdivisions of the country; mineral areas; timber belts; wheat areas and water powers; irrigation; climatology and its relations to occupations and soil products. Mr. Bancroft.

Railway Mechanical Engineering. — Locomotive tractive power, train resistance, tonnage rating, locomotive testing, comparative costs of locomotive operation, boiler incrustation, chemical control of water purifying plants, determination of hardness, acidity, etc., fuel handling, location, design, equipment, and organization, with reference to roundhouses and railway shops, mechanical engineering requirements at terminals. Mr. Keay.

Text Books: — Henderson's Locomotive Operation (Railway Age); Henderson's Cost of Locomotive Operation (Railroad Gazette).

Railway Engineering.—Interlocking, block signalling, organization of operating department, operating expenses, records and reports, maintenance of way organization, accounts and programme for expenditures, track maintenance, tie renewals, ballast renewal, relaying and renewing rails, track tools, work train service, steam shovel work. Mr. Smart.

Electrical Railways. — Economic considerations, preliminary surveys, determination of schedules and equipment, de-

tails of location, details of construction, power plant location, organization of operating department, maintenance of track and structures. Mr. Smart.

Reference Books:—Canadian Railway Act of 1903; Wellington's Economics of Railway Location; Lavis, Railway Location Surveys and Estimates; Webb's Economics of Railway Construction; Gillette's Earthwork and its Cost; Allen's Railway Curves and Earthwork; Manual American Railway Engineering and Maintenance of Way Assoc.; Rules of the M. of W. Dept. C. P. R.; Gotshall's Electric Railway Economics; Tratman's Track and Track Work; Paine's Roadmaster's Assistant; Camp's Notes on Track.

Shorthand.—Mr. Young.

Telegraphy.—Mr. Miller.

Continuing the Third Year courses.

# 17. Shopwork.

#### INSTRUCTORS

CARPENTER SHOP AND PATTERN S	SHOPG. WOOLEY.
SMITH SHOP	J. STEWART.
FOUNDRY	
MACHINE SHOP	A. W. MILLER.

The course in shopwork is intended to afford some preparation for that study of workshop practice on a commercial scale which every engineer has to carry out for himself. With this end in view, the student works in the various shops of the department, and completes in each a series of practical exercises. He thus obtains some knowledge of the nature and properties of the various materials he employs; he receives systematic instruction in the use and care of the more important hand and machine tools; and he acquires some manual skill.

The instruction thus obtained must, however, be continued and supplemented. For this purpose students are expected to spend the greater portion of each long vacation in gaining

practical experience in engineering workshops outside the University.

Throughout the course, advanced students are as far as possible entrusted with the construction and erection of machinery and apparatus which afterwards form part of the equipment of the department. An air-compressor, a boring bar, a belt-testing machine, and a duplex feed pump, are examples of the work which has been done in this manner. Such students are also encouraged to see and assist in the repairs required by the engines, boilers and machine tools in the engineering building.

Students are required to read and make notes of selected portions of certain text-books, and articles in technical journals, illustrative of the work done in each shop.

In connection with his shopwork each student is required to keep a record of his work. These records or notes are made on standard forms. These are handed in to the Shop Instructor at the close of each period of work, and, together with diligence and the results of a brief written examination, form the basis on which credit for shopwork is assigned.

The work of the various shops is carried out under the direction of the Professor of Mechanical Engineering. The following are the subjects of instruction:—

Carpentry and Joiner Work.—Sharpening and care of woodworking tools; sawing, planing and paring to size; preparation of flat surfaces, parallel strips, and rectangular blocks; construction of the principal joints employed in carpentry and joiner work, such as end and middle lap joints, end and middle mortise and tenon joints, mitres, and dado and sash joints; dovetailing; scarting; joints used in roof and girder work; wood-turning; use of wood-turning tools.

Pattern Making. — Use of pattern-makers' tools; elements of pattern-making; allowances to be made for draught and for contraction in moulding and casting; use of contraction rule; preparation of prints and plain core-boxes; exercises in paring and turning; construction of patterns and core boxes for pipes, flanges, elbows, tees, and valves; more difficult exercises in

pattern-making, including built-up patterns and face-plate work; gear and wheel patterns.

Smith-Work. — The forge and its tools; use and care of smiths' tools; management of fire; use of anvil and swage-block; drawing taper, square and parallel work; bending, upsetting, twisting, punching, and cutting; welding and scarfing: forging, hardening, and tempering tools for forge and machine work; tempering drills, dies, taps, and springs.

Foundry-Work. — Moulders' tools and materials used in foundry work; the cupola; the brass furnace; preparation of moulding sand; boxes and flasks; core-making; use of coreirons; bench moulding; blackening, coring and finishing moulds; vents, gates and risers; special methods required in brass moulding; floor moulding; open sand work; advanced examples of moulders' work; melting and pouring metal; mixtures for iron and brass casting.

Machine-shop Work.—Exercises in chipping; preparation of flat surfaces; filing to straight edge and surface plate; scraping, screwing and tapping; use of scribing block and surface gauge; marking off work for lathes and other machines; turning and boring cylindrical work to gauge; surfacing; screwcutting and preparation of screw-cutting tools; use of turret lathe; taper turning; machining flat and curved surfaces on the planing and shaping machines; plain and circular milling with vertical and horizontal spindles; gear-cutting; cuttergrinding; drilling and boring; use of jigs; grinding flat and cylindrical surfaces; cutting tools for hand and machine; their cutting angles and speeds; dressing and grinding tools.

# SPECIAL INFORMATION REGARDING THE FACULTY OF LAW.

THE SESSION 1908-1909 WILL OPEN ON TUESDAY, SEPTEMBER 15TH, 1908.

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. Macdonald.

Students have the free use of the Law Library of the Faculty, to which large additions are continually being made, those lately added including, among many others, the Ontario Reports, the Nova Scotia Reports, Dalloz, Recueil Périodique, Campbell's Ruling Cases, the Encyclopædia of the Laws of England, the new series entitled "The English Reports," the American and English Encyclopædia of Law and the American and English Encyclopædia of Pleading and Practice. It is hoped that before long this Library will contain all the Reports of the several Provinces of Canada. The principal reports and legal periodicals are taken. A special room for Law students is provided in the University Library. This room is open during the day, and in the evenings from eight to ten o'clock.

Particulars regarding the following points will be found on the pages named:—

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For Time Tables of Lectures, see first part of Calendar.

<sup>\*</sup> The attention of students who intend to practise law in the Province of Quebec, or to be admitted to the notarial profession, is called to the statutory requirements for admission to study. These will be found on page 270.

#### SPECIAL REGULATIONS.

- I. Students shall register at the Office of the University Registrar before commencing the work of the Session. The Register of Matriculation shall be closed on the 1st of October in each year. Candidates applying thereafter may be admitted on a special examination to be determined by the Faculty.
- 2. The lectures will be delivered between the hours of half-past 8 and half-past 9 in the morning, and between 4 and half-past 6 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.
- 3. Undergraduates shall be known as of the First, Second, or 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. 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.
- 5. 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 by written papers, which may be supplemented by an oral examination. 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. There shall be no sessional examination of students who are candidates in the final examination.

- 6. 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,
- 7. 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.
- 8. Every candidate, before receiving the degree of B.C.L., shall make and sign 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.

9. On the following days, when they fall within the session, no lectures will be delivered, viz.: Ash Wednesday, Good Friday, Easter Monday, and Thanksgiving Day. On the following days the morning lectures will be omitted, viz.: All Saints' Day (Nov. 1st), and Conception Day (Dec. 8th).

#### ADVISORY COMMITTEE,

The attention of the McGill Law Faculty has been drawn to the fact that students commencing their undergraduate course frequently need information with regard to law offices in which their services would be welcomed. For the purpose of furnishing such information and also of assisting the graduates of the Law school to obtain suitable positions in offices needing legal assistance, a number of members of the Bar have been kind enough to form themselves into an Advisory Committee. Members of the Bar desiring the assistance of students or young graduates are requested to communicate with the Secretary of this Committee, Mr. C. M. Cotton, B.A., B.C.L. The Committee consists of the following gentlemen:—

C. J. Fleet, B.A., B.C.L., K.C.; W. J. White, M.A., D.C.L., K.C.; E. E. Howard, B.A., B.C.L.; Lawrence McFarlane, B.A., B.C.L.

#### THE COURSE OF STUDY,

The Curriculum extends over three years. It includes lectures upon all the branches of the Law administered in 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 practise at the Bar of the Province. In all the courses the attention of students is directed to the sources of the Law, and to its historical development. During their First Year the students will attend 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 history of our Law since the Cession, and its relations to the French and to the English Law, will be explained. First Year students will also attend courses on the Law of Persons; the Law of Real Estate; the Law of Obligations; the elementary rules of Procedure; and an introductory course on Criminal Law. A new feature of the First Year curriculum is a practical course on Pleading, with numerous exercises in drafting. This course will be given in French. The remaining branches of Law, civil, commercial, and criminal, will be dealt with in the Second and Third Years. During the three years the Civil Code, the Criminal Code, and the Code of Civil Procedure will be covered, and lectures will also be given upon such subjects as Bills of Exchange, Merchant Shipping, and Banking, which are regulated mainly by special statutes.

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 indispensable that a lawyer shall be able to write and speak French. The Faculty are determined to exact a high standard in this subject, and have passed a new regulation to secure this end

(see page 27). Moot Courts are held from time to time in order to afford practice in the presentation of legal arguments.

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 courses in the Faculty of Arts for two years.

# COURSES OF LECTURES.

PROFESSOR:—F. P. WALTON, B.A. (Oxon), LL.B. (Edin.)., LL.D. (Aberd.)

During the first part of the course 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 on but slightly. Those portions of the Roman Law which have been followed most closely in the existing law of the Province, e.g., property, servitudes, pignus and hypothec, and 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 in books will be given to the two students who obtain the highest marks in these examinations.

Text-books:—For the historical part, Walton's Historical Introduction to the Roman Law; and for the Institutes, Moyle's or Sandar's Institutes of Justinian, or Girard, Manuel de Droit Romain.

Books of Reference:-

Muirhead's Historical Introduction to Roman Law; Muirhead's Institutes of Gaius; Maynz, Cours de Droit Romain; Puchta, Institutionen; Maine's Ancient Law.

# Constitutional and Administrative Law,

Professor:—F. P. Walton, B.A. (Oxon), LL.B. (Edin.)., LL.D. (Aberd.)

The object of this course is to shew the actual working of the Canadian constitution. A sketch of the constitutional history prior to Confederation is given. The B. N. A. Act is explained, and the leading cases discussed which illustrate the respective powers of the Federal and of the Provincial Legislatures. The growth of Cabinet Government is traced, and some of the fundamental rules of the English Constitution are expounded and contrasted with those followed in other countries.

No text-book is prescribed, but students are recommended to refer to Todd, Parliamentary Government in the British Colonies; Houston, Constitutional Documents of Canada; Dicey, Law of the Constitution; Anson, Law and Custom of the Constitution.

#### Obligations-Advanced Course,

Professor:—F. P. Walton, B.A. (Oxon), LL.B. (Edin.)., LL.D. (Aberd.)

Two alternate courses are delivered to students of the Second and Third Years.

Their object is to explain important parts of the law of obligations in more detail than is possible in the general course on the subject.

The method is mainly the explanation of illustrative cases. Frequent references are made to French and English decisions.

#### Legal History and Bibliography.

PROFESSOR: -ARCHIBALD McGoun, M.A., B.C.L., K.C.

This course comprises an outline of the history of the law in force in the Province of Quebec.

The main source from which our law is derived is the Customary Law of France, as modified by the principles of Roman Law, 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 in which it was administered in 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 Confederation. Lower Canadian Civil Law has been modified by English Law in commercial matters, and also by statutes passed in the Province. The Criminal Law 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.

# Agency and Partnership.

PROFESSOR: -ARCHIBALD McGoun, M.A., B.C.L., K.C.

This course begins with the principles of the law of Mandate, as laid down in the Civil Code of Lower Canada, and treats of Civil and Commercial Agency. The rights and liabilities of principal and agent both between themselves and in relation to third parties is considered, and special attention is directed to the powers of agents in selling, pledging, and dealing with the property of the principal. The law relating to factors or commission merchants, brokers, and other agents is explained.

In partnership the right of each partner to bind his fellow partner in virtue of the mandate reciprocally given and enjoyed, leads to the distinction between civil and commercial partnership, and the limited partnership, or société en commandite, is also treated of. The distinction between partnership and joint stock companies leads to a consideration of the connexion between this subject and the subject of Companies and Corporations which form the subject matter of a course in alternate years on the Law of Corporations and of Joint Stock Companies, as follows:—

# Law of Corporations and of Joint Stock Companies.

This course is the sequel of the course on Agency and Partnership. The doctrine of limited liability, and the opportunity which it affords of carrying out enterprises of great importance, by means of capital contributed by a large number of individuals, is treated of in this course. The growth of corporations, both those established by long custom, and those created by Royal Charter, or by parliamentary or legislative authority, is also explained, as well as 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.

## Criminal Law.

PROFESSOR:-Hon. C. P. DAVIDSON, M.A., D.C.L.

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, I.

Professor:—R. C. Smith, B.C.L., K.C.

The subjects dealt with will include commercial sales and the law of insurance.

The course on Insurance will cover:-

(a) Insurance, contracts of; (b) marine insurance; (c) fire insurance; (d) life insurance.

## Commercial Law, II.

Professor: - Hon. C. J. Doherty, D.C.L.

The subjects dealt with are: bills and notes, the law of carriers, and the law of banks and banking. They are treated in three courses, constituting:—

1. A commentary on the Bills of Exchange Act.

2. A commentary on Section 3 of the Title of Lease and Hire, and on the second, third, fourth and sixth Titles of Book 4 of the Code, and on the Merchant Shipping Act.

3. A commentary on the Bank Act.

#### Civil Procedure.

LECTURER: -G. W. MACDOUGALL, B.A., B.C.L. K.C.

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.

#### Persons.

LECTURER: -G. W. MACDOUGALL, B.A., B.C.L., K.C.

This course covers the Law of acts of civil status, absentees, marriage, separation, divorce, filiation, minority and interdiction.

#### Civil Procedure

PROFESSOR: -HON. C. J. DOHERTY, D.C.L.

The advanced course for the Second and Third Years covers all matters of procedure not dealt with in the First Year course, and includes trial, provisional remedies, such as capias, attachment before judgment, injunction, etc., and spe-

cial 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, which will be taken in alternate years.

## Marriage Covenants and Minor Contracts, Prescription, Lease, and Municipal Law.

Professor:—A. Geoffrion, B.C.L., K.C.

Two courses—in alternate years.

## Successions, Gifts and Substitutions.

PROFESSOR: -HON. C. J. DOHERTY, D.C.L.

Two courses—in alternate years.

I. 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 of presenting to the student the law governing successions as one whole. The subject will be developed as nearly as possible in the following order:—

(1) General notions, definitions, and divisions of the subject; (2) the testamentary succession; (3) the ab-intestate succession; (4) rules of law common to both successions; (5) rules peculiar to the testamentary succession; (6) rules peculiar to the ab-intestate succession; (7) partition of the succession (and of property held in undivided ownership generally), its incidents and effects.

II. Gifts and Substitutions.

This course comprises a commentary on and explanation of Chapters I, II, and IV of Title II of the Third Book of the Civil Code, dealing with:

(1) Gifts inter vivos; (2) gifts in contemplation of death, as permitted in contracts of marriage; (3) substitutions.

## Real Property Law and Registration.

PROFESSOR: -W. DE M. MARLER, B.A., D.C.L.

First Year Course—25 lectures.

Registration of Real rights—its objects; modes of registration; effect; the cadastral system.

Second and Third Year Courses—50 Lectures, in alternate Courses.

First Course: — Mode of acquisition of immoveables—25 lectures.

In this course, a deed of sale will be analyzed and its various clauses explained: the parties; the description and the measurement of land; the obligations of buyer and seller and the security for their performance; warranty, its modifications and results; the form and registration of the deed; the rights of the wife; the distinctions between sale and other modes of acquisition, and their effects on the parties; forced sales, their incidents and results; examination of titles, practically considered.

Second Course:—Privileges and hypothecs; servitudes—25 lectures.

Debts and causes of preference; characteristics of hypothecs—the various kinds, their history, conditions and effects; the ranking of hypothecs; the hypothecary action, its characteristics, incidents and results; privileges on immoveables; registration of privileges and hypothecs; servitudes—natural, legal and conventional; water courses and streams; walls and fences.

#### Public International Law.

Professor: -E. Lafleur, B.A., D.C.L., K.C.

Sovereignty and equality of independent states; recognition of belligerency and independence; justifiable grounds of intervention; modes of territorial acquisition; territorial boundaries; doctrine of exterritoriality; treaties and arbitrations; laws of war; neutrality of states and of individuals; laws of

blockade; contraband; confiscation; prize-courts and their jurisprudence.

The students' attention will be specially directed to treaties, diplomatic relations, and international arbitrations, in which Canada is directly concerned.

## Private International Law.

PROFESSOR: -E. LAFLEUR, B.A., D.C.L., K.C.

Distinction between the a priori and positive methods; sources of the positive law of Quebec on the subjects; application and illustrations 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.

These two courses will be given in alternate years.

## Pleading and Practice.

LECTURER: -E. FABRE SURVEYER, B.A. (Laval), B.C.L.

This course of lectures deals with the different species of actions, their institution, summonses, preliminary pleas, defences, answers and replications (C. P., 76 to 214); incidental proceedings (C. P., 215 to 274); proceedings in uncontested cases (C. P., 418 to 420, and 532 to 535); amendments (C. P., 513 to 526); oppositions to executions of moveables (C. P., 644 to 652); also provisional measures (C. P., 893 to 977), and procedure in summary matters (C. P., 1150 to 1162).

It includes the schedules and rules of practice referring to the above mentioned articles of the Code and forms of the most common kinds of pleadings.

## REQUIREMENTS FOR THE DEGREE OF D.C.L.

(Adopted March, 1891.)

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 examination for the Degree of D.C.L., in Course, 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 the third group. In the first group one work on Public and one on Private International Law must be offered.

## 1. International Law.

#### A. Public:-

Twiss, Sir T., Law of Nations.
Hall, W. E., International Law.
Harcourt, Sir W. V., Letters by *Historicus*.
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. Fiore, 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, Institutionen.
Krüger, Römische Rechtsquellen.
Roby's Introduction to the Digest.
Hunter's Roman Law.

## 3. Constitutional History and Law.

Dicey's Law of the Constitution.
Stubbs' Constitutional Law of England.
Hearn, Government of England.
Bagehot, English Constitution.
Franqueville, Gouvernement et Parlement Britanniques.
Gneist, Constitution of England.
Hallam, Constitutional History of England.
May, Constitutional History of England.
Gardiner, Constitutional History of England.
Freeman, Growth of the English Constitution.
Mill, Representative Government.
Anson, Law and Custom of the Constitution.

## 4. Constitution of Canada and Works Relevant Thereto.

Todd, Parliamentary Government in the British Colonies. Bourinot, Federal Government in 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. Maseres' Collection of Quebec Commissions. Viollet, Histoire du Droit Français. Dilke, Problems of Greater Britain. Bryce, American Commonwealth. Cooley, Principles of Constitutional Law. Curtis, History of the Constitution of the United States.

## 5. Criminal Law, Jurisprudence, and Political Science.

Stephen, History of the Criminal Law.
Blackstone, Vol. IV.
Harris, Principles of Criminal Law.
Holland, Elements of Jurisprudence.
Salmond's 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.

#### 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.

# I. Regulations Applicable to those who Intend to Become Members of the Bar.

Article 3544 R.S.Q.—Examinations for admission to study and to practise law in the Province of Quebec are held at the time and place determined by the General Council.

The examinations for the practice are held 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 all these examinations can be obtained from the General Secretary's Office. The present General Secretary is Arthur Globensky, Esq., K.C., 97 St. James St., Montreal.

Article 3546.—Candidates must give notice as prescribed by this article at least one month for the study and fifteen days for the practice before the time fixed for the examination to the Secretary of the Section in which he has his domicile or in which he has resided for the past six months.

Article 3503a (added by Statute of Quebec, 1890, 53 Victoria, Cap. 45).—This article provides that candidates holding the diploma of Bachelor of Arts, Bachelier-ès-Lettres, or Bachelier-ès-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 \$105 for a complete certificate of admission to study; of \$70 for a partial certificate of admission to study;

and of \$180 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 practising 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 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:—

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.

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.

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 organization 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.

# II. Regulations Applicable to those who Intend to Become Notaries.

For the regulations applicable to the candidates for the Notarial Profession, see Revised Statutes of Quebec, Arts. 3801-3833, and 53 Vict., c. 45 (Queb.).

# SPECIAL INFORMATION REGARDING THE FACULTY OF MEDICINE.\*

THP SEVENTY-SEVENTH SESSION OF THE FACULTY OF MEDI-CINE WILL OPEN ON WEDNESDAY, SEPTEMBER 16TH, 1908. THE INTRODUCTORY LECTURE WILL BE GIVEN ON THE 15TH. STU-DENTS MAY REGISTER ON AND AFTER SEPTEMBER 8TH.

Particulars regarding the following matters will be found on the pages named:—

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### FOUNDATION AND HISTORY.

The Faculty of Medicine of McGill University is the direct outcome of the Montreal Medical Institution which was opened in November, 1824.

In the year 1829 the Montreal Medical Institution became, by a formal act of the Governors of the Royal Institution for the Advancement of Learning, the Medical Faculty of McGill University.

In 1872, the Faculty moved to a building on the University Grounds.

This building was enlarged in 1885, and again through the generosity of Mr. John H. R. Molson, in 1895. In less than five years further enlargement was found to be necessary.

<sup>\*</sup> Fuller information is given in the separate Calendar issued by the Faculty, which can be obtained on application to the Medical Registrar.

This was rendered possible through the generosity of Lord Strathcona who, in 1898 contributed, in the names of Lady Strathcona and the Hon. Mrs. Howard, \$100,000 towards the necessary extensions and alterations. The new buildings were formally opened by H. R. H. the Prince of Wales on September 19th, 1901.

On April 16th, 1907, the greater part of these buildings was destroyed by fire, and a more commodious and up-to-date structure is now being erected on a new site in close proximity to the Royal Victoria Hospital. When completed, at a cost of considerably over half a million dollars, it will rank among the best of such buildings on the Continent. In the meantime work is being carried on without any loss of efficiency, in the portion of the old building which was saved, in other university buildings and in the lecture theatres of the Royal Victoria and General Hospitals.

#### MATRICULATION.

The University Matriculation requirements are stated on pages 25 and 28 to 33.

Intending students are reminded that a Degree in Medicine does not give a right to practise.

Each province in Canada has special regulations in this connection. In most of them a standard of general education is insisted on as a preliminary. If possible, therefore, a student should register with the Medical Council of the province in which he intends to practise, before entering on the study of Medicine proper. A certificate of such registration will exempt the holder from any further examination for entrance to this University.

The Registrars of the Medical Councils in the several provinces, from whom full particulars regarding admission to study can be obtained, are as follows:—

QUEBEC.—Dr. J. A. MacDonald, 250 Mountain St., Montreal and Dr. C. R. Paquin, Quebec, P.Q.

ONTARIO.—Dr. J. L. Bray, Toronto.

New Brunswick.—Dr. Stewart Skinner, St. John.

Nova Scotia.—Dr. A. W. H. Lindsay, 241 Pleasant Street, Halifax.

Prince Edward Island.—Dr. S. R. Jenkins, Charlottetown. Manitoba.—Dr. J. S. Gray, 358 Hargrave St., Winnipeg, and Mr. G. J. Laird, M.A., Ph.D., Registrar, University of Manitoba, Winnipeg.

ALBERTA AND SASKATCHEWAN.—Dr. J. D. Lafferty, Calgary, Alta.

British Columbia.—Dr. C. J. Fagan, Victoria.

The Registrar of the Medical Council in Newfoundland is Dr. T. Sinclair Tait, St. John's.

#### FELLOWSHIPS.

Teaching and Research Fellowships are being established in connection with the various laboratories.

These fellowships are of the value of five hundred dollars per annum, are open only to graduates in Medicine, and are tenable for three years.

Two are now established in connection with the department of Pathology—a Governor's Fellowship, endowed by one or two of the Governors of the University, and a Faculty Fellowship, established by the Faculty.

## REGULATIONS FOR THE DEGREE OF M.D., C.M.\*

- I. No one will be admitted to the degree of Doctor of Medicine and Master of Surgery who shall not have attended lectures for a period of five eight month sessions in this University, or some other university, college or school of medicine, approved by this University.
- 2. Students of other universities, so approved, who may be admitted on production of certificates 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.

<sup>\*</sup>It should 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 here laid down.

3. 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, and the dissection of one or more types of Vertebrata, may, at the discretion of the Faculty, be admitted as Second Year students, such courses being accepted as equivalent to the First Year in Medicine. Students so entering will, however, not be allowed to present themselves for examination in Anatomy until they produce certificates of dissection for two sessions.

4. Candidates for the final examination shall furnish testimonials of attendance on the following branches of medical education; provided, however, that testimonials equivalent to, though not precisely the same as those above stated, may be

presented and accepted:-

Anatomy.
Practical Anatomy.
Physiology.
Practical 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.

Biology.
Medical Jurisprudence.
General Pathology.
Histology.
Hygiene and Public Health.
Practical Chemistry.
Ophthalmology and Otology.

Medical Physics.
Applied Medical Chemistry.
Pathological Anatomy,
Bacteriology.
Mental Diseases.
Pediatrics.
Medical and Surgical Anatomy.

Of which two full courses will be required.

Of which one full course will be required.

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, of having assisted at twenty vaccinations, and of having, under the direction of a properly qualified anæsthetist, administered an anæsthetic at least twice.

Courses of less length than the above will only be received for the time over which they have extended.

- 5. 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.
- 6. 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 by this University. Undergraduates are required to attend only the practice of the Out-Patient Departments of the Hospital during their Third Year.
- 7. 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, and of having reported at least ten medical and ten surgical cases.
- 8. 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 acted as assistant for at least six cases.
- 9. 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.
- 10. The following oath or affirmation will be exacted from the candidate before receiving his Degree:

#### Sponsio Academica.

In Facultate Medicine Universitatis.

Ego, A—— B——, Doctoratus in Arte Medica titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo:—me in omnibus

grati animi officiis erga hanc Universitatem ad extremum vitæ halitum perserveraturum; tum porro artem medicam caute, caste, et probe exercitaturum; et quoad in me est, omnia ad ægrotorum corporum salutem conducentia cum fide procuraturum; quæ denique inter medendum visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita praesens mihi spondenti adsit Numen.

#### 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 Honour Examinations at the close of each Session are arranged as follows:—

## FIRST YEAR (Five Year Course).

Examinations in Biology, Anatomy, Medical Physics, Inorganic Chemistry, Practical Chemistry and Elementary Bacteriology, Embryology, Histology.

Students who have taken one or more University courses in Biology or Chemistry before entering may be exempted from attendance and examination. Students exempted in these First Year subjects are allowed only a pass standing, but may present themselves for examination if they desire to attain an honour standing. Students exempted from First Year Chemistry must take Second Year Chemistry, in their First year.

## SECOND YEAR (Five Year Course).

Examinations in Anatomy, Physiology, Organic and Biological Chemistry, Histology and Pharmacy.

## THIRD YEAR (Four Year Course).

Examinations in Pharmacology and Therapeutics,\* Medical Jurisprudence, Public Health and Preventive Medicine, Bacteriology, General Pathology, Clinical Microscopy, Obstetrics, Medicine, and Surgery.

<sup>\*</sup> A special examination in prescription writing will be demanded and must be passed before receiving standing in Pharmacology and Therapeutics.

#### THIRD YEAR. (Five Year Course).

Examinations in Physiology, Practical Physiology, Pharmacology, General Pathology, Bacteriology, Clinical Medicine and Clinical Surgery.

## FOURTH YEAR. (Four Year Course).

Examinations in Medicine, Surgery, Obstetrics, Gynæcology, Ophthalmology and Otology, Mental Diseases, Clinical Medicine, Clinical Surgery, Clinical Obstetrics, Clinical Gynæcology, Clinical Ophthalmology and Otology and Practical Pathology.

## FOURTH YEAR. (Five Year Course).

Examinations in Medicine, Surgery, Obstetrics, Pharmacology and Therapeutics,

#### FIFTH YEAR.

Examinations in Medicine, Surgery, Gynæcology, Obstetrics, Ophthal-mology, Oto-Laryngology, Hygiene, Medical Jurisprudence, Mental Diseases.

By means of the above arrangement a certain definite amount of work must be accomplished by the student in each year, and an equitable division is made between the Primary and Final branches.

A minimum of 50 per cent. in each subject is required to pass and 75 per cent. for honours.

Candidates who fail at the regular examinations in not more than two subjects of the First, Second, Third, or Fourth Years, may take the supplemental examinations before the beginning of the following Session. These examinations will be held during the week preceding the regular opening of the Session.

Students who fail in both Physiology and Anatomy at the end of the second year are required to repeat their year.

Failure in more than two subjects at the regular examinations excludes the candidate from advancement and necessitates his repeating the work in the subjects in which he has failed.

No student may proceed to the work of the Fourth Year who has not passed the examinations in all subjects included

in the curriculum of the First and Second Years; nor to the Fifth Year who has not passed all the examinations of the First, Second and Third Years.

Candidates who fail to pass in a subject in which practical work is required may, at the discretion of the examiner, be required to repeat the course and furnish a certificate of attendance thereon.

Students who fail in one subject only of the Final Year may, at the discretion of the Faculty, be allowed a supplemental examination in that subject. Should the subject be one in which practical or clinical work is required, the student must furnish a certificate of additional hospital attendance or laboratory work before presenting himself for examination.

Students who fail at the examinations held at Christmas may, at the discretion of the examiners, be granted supplemental examinations at a period not less than three months after the regular examination.

Applications for supplemental examinations must be in the hands of the Registrar at least three days before the date set for the beginning of the examination and they must be accompanied by a fee of \$5.00 for each subject.

## COURSES OF LECTURES

### FIVE YEAR COURSE.

The course of study leading to the Degree of M.D., C.M., now extends over five years instead of four. This has necessitated a re-arrangement of the subjects in the curriculum of each Year, with the view of giving the student a thorough grounding in the important subjects of Biology, Chemistry, Anatomy and Physiology; and of enabling him to take full advantage of the exceptional clinical facilities afforded by the Montreal General and Royal Victoria Hospitals. Under the new arrangement the subjects will be taken up as indicated on pages 279 and 280.

#### ANATOMY,

PROFESSOR:—FRANCIS J. SHEPHERD, M.D., LL.D.
ASSISTANT PROFESSOR:—J. G. McCARTHY, M.D.

LECTURERS:—

J. A. SPRINGLE, M.D.
J. A. HENDERSON, M.D.

J. J. ROSS, B.A., M. D.
A. E. ORR, M. D.
A. E. ORR, M. D.
H. M. CHURCH, M.D.
C. K. P. HENRY, M.D.
ASSISTANT DEMONSTRATORS:—

W. E. NELSON, M.D.
J. A. NUTTER, B.A. M.D.

Anatomy is taught in the most practical manner possible, and its relation to Medicine and Surgery full considered. For the five year course, the subject will be taken up as for the four year course, during the First and Second Years. The lectures are illustrated by the fresh subject, moist and dry preparations, sections, models, plates and drawings on the blackboard. Frequent examinations are also held.

A course of practical demonstrations in medical, surgical and topographical Anatomy is also given in the Fourth 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.

This Dissecting Room is open from 9 a.m. to 6 p.m. In consequence of the excellent Anatomy Act of the Province of Quebec, abundance of material can always be obtained.

#### CHEMISTRY.

Professor:—R. F. Ruttan, B.A., M.D.

Demonstrator in
Clinical Chemistry:—
CAMPBELL P. Howard, B.A., M.D.

The course in medical Chemistry is a graded one.

First Year:—During the autumn term of the First Year a short course of lectures in medical Physics is given. These lectures are fully illustrated by experiments. The students, taken in groups, are required to study by experiments in the laboratory the more important phenomena of heat, sound, light and electricity. Lectures and demonstrations on the principles of Chemistry are given three times per week during the winter and spring terms. Examinations are held at Christmas on medical Physics, and in June on the theory of Chemistry.

Laboratory instruction in practical Chemistry is given during the autumn term, six hours per week. This course includes the experimental study of the laws of chemical action, including gravimetric and volumetric determinations, the properties of typical elements and compounds, and a short course in qualitative analysis. Special attention is directed to instructing the students in keeping an accurate record of his observations and conclusions, and in the solution of chemical problems of importance in relation to biological and pathological Chemistry. These notes are examined daily and criticised.

Second Year:—In the five-years-course the Chemistry in the Second Year will be entirely organic and biological Chemistry, leading up to and partly including physiological and pathological Chemistry.

During the session of 1908-09 a course of lectures and demonstrations, three per week, is given on organic Chemistry in the autumn term, and an examination is held at Christmas. During the winter and spring terms lectures and demonstrations are given on the application of Chemistry to clinical diagnosis, sanitation and medical jurisprudence.

Laboratory work in clinical and applied medical Chemistry

is required during the spring term. An examination in applied medical Chemistry, practical and theoretical, is held in June.

Beginning with the session of 1909-10 a course in Clinical Chemistry will be given to Third Year students at the end of the session.

Students will find it greatly to their advantage to have a knowledge of elementary Chemistry before entering upon the study of Medicine. Graduates in Arts of recognized universities, on presenting certificates of having taken courses in theoretical and practical Chemistry and Physics, and of having passed examinations in the same, may be exempted from the Chemistry of the First Year.

#### PHYSIOLOGY.

THE JOSEPH MORLEY DRAKE PROFESSOR:—T. WESLEY MILLS, M.A., M.D. ASSISTANT PROFESSOR:—W. S. MORROW, M.D.

Lecturers:— { A. A. Robertson, B.A., M.D. A. H. Gordon, M.D. Demonstrators:— { W. B. Howell, M.D. T. P. Shaw, M.D.

Assistant Demonstrator:—A. L. C. Gilday, B.A., M.D.

The purpose of this course is to make the student 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 extending over two years is given, in which the physical, the chemical, and other aspects of the subject receive attention.

In addition to the use of diagrams, models, lantern demonstrations, etc., every department of the subject is illustrated by experiment. An ample supply of apparatus is available for demonstration purposes and is being added to from year to year so that the department may be kept fully abreast of the times.

The physiological laboratory is fitted up so as to permit of eighty students engaging in work at one time. The fittings and equipments of each bench are of the latest design and are well adapted to their purpose. An elaborate electrical

equipment permits of all the various currents required for physiological experiments being supplied to each bench. The apparatus was constructed by the best American and European makers and was thoroughly tested before being accepted.

During recent years the laboratory work for students has been entirely rearranged. Since the session of 1901-02, when over three thousand dollars worth of new apparatus was purchased, there has been a steady advance which still continues. The practical work, like the lectures, now extends over two years. Each group of two students is supplied with all the apparatus necessary to carry out the work of verifying a large number of leading principles of physiology and registering the results by the graphic method.

Provision is also made for a course in mechanical Physiology, covering foodstuffs, digestion, the animal fluids, etc. This course will be considerably extended in the near future in view of the increasing importance of Chemical Physiology in practical medicine.

Throughout the whole course the needs of the future practitioner of scientific medicine are kept in view.

#### HISTOLOGY,

Lecturer and Director of the Histological Laboratory:—
C. W. Duval, M.D.

Lecturer:—Walter M. Fisk, M.D.

Demonstrators:—
{ H. B. Cushing, B.A., M.D.}

W. A. Dorion, M.D.

The teaching of Histology and microscopical methods extends throughout the First and Second Years. This method will be continued for the five-year course. During both Years practical instruction will be given upon the preparation and mounting of specimens. Students will also be required to make drawings of the specimens prepared by them. Projection apparatus will be made use of, to demonstrate the specimens being prepared by the students.

For the First Year students, work will commence immediately after the Christmas holidays and continue until the end of the Session. The course will consist of laboratory work

and demonstrations, with occasional lectures upon elementary and systematic Histology up to and including the digestive system. At the end of the Session a practical examination will be held on the work done.

During the Second Year a course of demonstrations and laboratory work together with lectures will be given on more advanced Histology and an examination held at Christmas.

#### BIOLOGY.

PROFESSORS:— { D. P. PENHALLOW, D.Sc., PROFESSOR OF BOTANY. E. W. MACBRIDE, M.A., D.Sc. F.R.S., PROFESSOR OF ZOOLOGY.

The course in elementary Biology is designed to prepare for special study in medical subjects. It consists of two concurrent courses in Plant and Animal Biology given under the supervision of the Professors of Botany and Zoology respectively.

## A.—PLANT BIOLOGY.

The course in Plant Biology is designed to introduce the student to a knowledge of such elementary structures and activities, and to a discussion of such biological principles as will not only assist in a broader interpretation of the facts connected with animal life, but will be of service in the further prosecution of medical studies from a biological point of view. It will therefore deal with the structure of the plant cell in comparison with the animal cell, and establish the essential features of cytoplasm and nucleus; the functions of respiration and the distinction between ærobic and anærobic respiration; the storage of energy by green plants and the general features of constructive metabolism; the utilization of energy as exemplified by leucophytes, and the general characteristics of destructive metabolism or catabolism; the division of labour and the origin of organs; the origin and significance of sex with a discussion of parthenogenesis; the general principles of plant evolution.

These studies will be illustrated by the practical examination of a series of carefully selected types.

Two lectures and two laboratory periods each week throughout the autumn term.

# B.—Animal Biology (Including Embryology).

This course consists of a study of the fundamental properties of protoplasm; the principles of the formation of tissues and organs; an outline of vertebrate structure and function, including a more detailed study of mammalian anatomy and osteology. The types studied are Amæba, Paramæcium, a Flagellate, Hydra, Lumbricus, Amphioxus, Scyllium (the English dog-fish), Rana and Lepus. In the case of the last type special attention will be given to the osteology.

The portion of the course devoted to comparative anatomy is followed by one on embryology. In this the following subjects will be dealt with:-The essential nature of the egg and spermatozoon; chromosomes, centrosomes and the maturation division; the segmentation of the egg and the simplest type of the differentiation of the primary embryonic layers, as illustrated by the early development of Echinus; the simplest type of vertebrate development, as illustrated by Amphioxus; the effect of the progressive accumulation of food yolk in hindering and modifying early development, as illustrated by the Frog, the Dog-fish, the Gecko, and the Chick; the formation of vertebrate organs, as illustrated by the Chick; the development of special relations between the mammalian egg and the womb, as illustrated by the rabbit, the dog, the sheep, the lemur and man; finally, the special peculiarities of the development of the human organs.

Two lectures and two laboratory periods throughout the Session, from September to April.

A special fee of \$2.50 is charged against the caution money of each student attending the course in Animal Biology in order to cover the cost of instruments and laboratory note books supplied him.

#### PATHOLOGY AND BACTERIOLOGY.

Professor:—J. G. Adami, M.A., LL.D., F.R.S.
Assistant Professor:—A. G. Nicholls, M.A., M.D.

Lecturers in Pathology:— { Oskar Klotz, M.B., M.D. | Charles A. Duval, M.D. | Charles A. Duval, M.D. | Demonstrator in Surgical Pathology:—E. J. Semple, M.D. | Demonstrators in Pathology:—{ R. P. Campbell, M.D. | Demonstrator in Bacteriology:—S. H. McKee, M.D. | Demonstrator in Bacteriology:—S. H. McKee, M.D. | Asst. Demonstrator in Bacteriology:—W. H. Donnelly, M.D.,

The following courses are given in these subjects:-

- I. An introductory course in Pathology for students completing their Second Year. Lectures twice weekly throughout the spring term, with museum demonstrations two hours weekly. This course is intended to familiarize students with the main processes and conditions encountered in clinical work, with the terms most often employed and their significance. The rich collection of examples of the more common states of disease contained in the Museum forms the basis of this course.
- 2. A course of General Pathology for the students of the Third Year; optional for those of the Fourth Year. Lectures are delivered twice weekly throughout the winter and spring terms.
- 3. A course of demonstrations in the performance of autopsies to students of the Third Year. The demonstrations are held weekly from October until Christmas.
- 4. Demonstrations upon the autopsies of the week to students of the two final years. These are given during the Session by Drs. Adami, McCrae and Klotz, at the Royal Victoria Hospital, and Dr. Duval at the Montreal General Hospital.
- 5. A course of Elementary Bacteriology for students of the First Year—eight lectures with demonstrations being given at the end of the winter term.

6. A course of lectures upon Bacteriology in Relation to Disease, for students of the Third Year, lectures given three times a week during the autumn term.

## PRACTICAL COURSES.

7. The performance of autopsies. Each student is required to take an active part in at least six autopsies. These are conducted at the General and the Royal Victoria Hospitals. In addition to the actual performance of the sectio cadaveris, the students are expected to attend practical instruction given with each autopsy in the method of preparation and microscopical examination of removed tissues, so as to become proficient in the methods of preparation, staining and mounting.

8. A practical course in the Bacteriology of infectious diseases, for students of the Third Year. Two lectures a week during the autumn term.

9. A practical course in Morbid Histology to students of the Third Year. Lectures are given twice weekly during the winter term. Students are instructed in the staining and mounting of specimens. Following upon this, in order that the student may make the fullest study of the material, and not spend most of his time in the mechanical processes of preparing it, every day some five or six mounted sections are distributed to each; lantern demonstrations are given of the main features of the series, and the student is expected to make drawings of the salient features of each specimen.

10. A course of demonstrations upon Morbid Anatomy, museum specimens, two per week during the winter and spring terms, to students of the Fourth Year.

In addition to the above, the staff of the department gives instruction to the more dvanced students who desire to take any special work in the laboratories—this more especially during the vacations.

Optional courses are conducted by the demonstrators of Pathology and the demonstrator of Neuro-pathology during the session. Throughout the year the curator of the Museum, Dr. M. E. Abbott, and the assistant demonstrator of Morbid Anatomy conduct a series of optional museum demonstrations to students of the Third and Fourth Years in groups of twelve. Classes in Clinical Pathology and Microscopy are given at the General and Royal Victoria Hospitals under the direction of the professors and lecturers in Clinical Medicine.

In connection with this Department, a Research and Teaching Fellowship has been established by certain Governors of the University.

## PHARMACOLOGY AND THERAPEUTICS.

PROFESSOR:—A. D. BLACKADER, B.A., M.D. LECTURER:—J. W. SCANE, M.D. DEMONSTRATOR:—J. L. D. MASON, M.D.

The lectures on this subject are graded in the following manner:—For students of the Second Year there is a three months' course in Practical Materia Medica and Pharmacy, with demonstrations and exercises in the laboratory. Prescription writing and the various modes of administering drugs are explained and illustrated. This is followed by a six months' course on the physiological action of drugs, with practical demonstrations, in the laboratory, of the action of the more important remedial agents. In the Third Year attention is directed to the therapeutic application of all the more important drugs and remedial measures, including electricity, hydrotherapy, and climatotherapy. In the Fourth Year special demonstrations on Applied Therapeutics will be given to the students in the wards of the Montreal General Hospital.

The Eddie Morrice Laboratory, comprising pharmacological and chemical research rooms, has, through the liberality of Mr. Morrice, been fully equipped with all necessary apparatus for carrying on extended research work.

For those entering upon the five year course the work has been arranged as follows:—The course in Materia Medica and

Pharmacy will be given during the last three months of the Second Year and will consist of lectures. demonstrations, and practical work by the student.

The course in Pharmacology will be given in the Third Year and will consist of a systematic course of lectures on the physiological action of drugs, with demonstrations, and practical laboratory work during which the student will be able to study by experiment the action of the more important drugs.

In the Fourth Year a systematic course on the therapeutic application of drugs and remedial measures will be given, and in the Fifth Year a course of special demonstrations in Applied Therapeutics in the wards of the General Hospital.

## MEDICAL JURISPRUDENCE.

Professor:—Geo. Wilkins, M.D. Lecturer—Medico-Legal Pathology:—D. D. MacTaggart, M.D.

This course is treated of in its medical as well as medico legal aspects. Special attention is devoted to the subject of blood stains, the chemical, microscopical 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 micro-spectroscope, so well adapted for showing the reactions with exceedingly minute quantities of suspected material. Recent researches in the diagnosis of human from animal blood are alluded to. In addition to the other subjects usually included in a course of this kind, Toxicology is taken up. The modes of action of poisons, general evidence of poisoning and classification of poisons are first treated of, after which the more common poisons are described, with reference to symptoms, post-mortem appearance and chemical tests. The post-mortem appearances are illustrated by plates, and the tests are shown to the class.

Practical demonstrations will be given once a fortnight by Dr. MacTaggart.

#### HYGIENE.

STRATHCONA PROFESSOR:—T. A. STARKEY, M.B., D.P.H., M.R.S.I. DEMONSTRATOR:—F. B. JONES, M.D., D.P.H.

Owing to the endowment of the Department of Hygiene by the Right Honorable Lord Strathcona, a teaching Laboratory has been established in connection with the chair of Hygiene. The compulsory course in Hygiene consists of two lectures per week, supplemented by demonstrations dealing with the practical application of hygienic principles as well as the Elementary Chemistry and Bacteriology of water, air, soil, foods and beverages. In addition, excursions are made periodically to inspect some point of hygienic interest. course also includes the hygiene of air, soil, water and climate; health resorts, personal hygiene, bathing, exercise, clothing, hygiene of special life periods; food and diet; food supply: food diseases and adulterations; hygiene of dwellings; heating, lighting and ventilation, sanitary fittings; municipal sanitation; water supply; sewage; drainage; refuse disposal; burial of the dead; hygiene of occupation, offensive trades; hygiene of hospitals, prisons, etc.; preventive medicine; methods of dealing with infectious diseases and epidemics; communicable diseases of animals; organization of health boards: sanitary law and administration in relation to the medical practitioner; vital statistics in relation to the healthfulness of communities.

An optional practical course more advanced than the one above referred to, will be open to students wishing to go into higher detail.

Special courses of instruction are given to graduates wishing to qualify themselves in sanitary work, or to obtain the diploma in Public Health. (See "Diploma Course in Public Health, page 305.)

The Laboratory has been equipped with the apparatus needed in giving practical illustrations in Hygiene, either as demonstrations to large classes of students, or as practical work for smaller groups.

The museum contains working models and apparatus illustrative of the application of hygienic principles.

The arrangement is as follows:-

The Hygiene Department occupies the entire north end of the laboratory wing, having the floor space corresponding with that of the Department of Histology. The main laboratory is 60 x 50 feet, and it is well equipped with apparatus for demonstrations and practical work in Hygiene. Adjoining it is a balance room and private laboratory, 13 x 15 feet. Opening off the main laboratory is the museum, about 45 x 30 feet, which is well stored with full sized specimens and working models illustrative of all branches of Public Health.

#### MEDICINE,

PROFESSORS:—

{ F. G. Finley, M.B., M.D. H. A. Lafleur, B.A., M.D. C F. Martin, B.A., M.D. Assistant Professor:—W. F. Hamilton, M.D. Lecturer:—G. G. Campbell, M.D.

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. 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 plates and models illustrative of the histological and anatomical appearances of disease, and the wards of the General and Royal Victoria Hospitals afford the lecturers ample opportunities to refer to living examples of very many of the maladies described, and to demonstrate the results of treatment. In the four year course, lectures are delivered during the Third and Fourth Years. In the five year course all didactic lectures will be given during the Fourth Year.

#### CLINICAL MEDICINE.

PROFESSORS:—

\begin{cases}
F. G. Finley, M.B., M.D. \
H. A. Lafleur, B.A., M.D. \
C F. Martin, B.A., M.D. \
C F. Martin, B.A., M.D. \
A. SISSISTANT PROFESSOR:—W. F. Hamilton, M.D. \
LECTURERS:—
\begin{cases}
G. GORDON CAMPBELL, B.Sc., M.D. \
S. Ridley MacKenzie, M.D. \
A. A. Bruère, M.D. \
A. A. Bruère, M.D. \
A. G. Nicholls, M.A., M.D. \
F. M. Fry, B.A., M.D. \
H. B. Cushing, B.A., M.D. \
A. H. GORDON, M.D. \
A. H. GORDON, M.D. \

DEMONSTRATORS:—
\begin{cases}
F. M. Finley, M.B., M.D. \
A. H. GORDON, M.D. \
A. H. GORDON, M.D. \

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DEMONSTRATORS:— JOHN MCCRAE, M.B. C. K. RUSSELL, M.D. A. C. P. HOWARD, R.A.

A. C. P. Howard, B.A., M.D. C. F. Wylde, M.D.

Assistant Demonstrators:—  $\begin{cases}
A. G. McAuley, M.D. \\
J. G. Browne, M.D. \\
W. W. Francis, M.D. \\
D. W. McKechnie, M.D.
\end{cases}$ 

The instruction in Clinical Medicine is conducted in the theatres, wards, out-patient rooms and laboratories of the Royal Victoria and Montreal General Hospitals.

For the four year course it is given throughout the Third and Fourth Years, and includes:—

- (1) The reporting of cases by every member of the Graduating Class, a certain number of cases being assigned to each student.
- (2) Bedside instruction for members of the Graduating Class.
  - (3) Clinics weekly in each Hospital.
- (4) Tutorial instruction for the Junior Classes, in the wards and out-patient rooms of both Hospitals.
  - (5) Instruction in Clinical Chemistry and Bacteriology.

For the five year course the instruction will extend throughout the Third, Fourth and Fifth Years. In the Third Year, demonstrations will be given to groups of students in the methods of examination, and in normal and abnormal physical signs, in the wards and out-patient departments of the Hospitals. This will be supplemented by courses in Clinical Chemistry and microscopy at the College.

Clinical instruction will also be given in the Hospital theatres to small groups of students and in the wards and outpatient departments.

In the Fourth Year, a systematic course of didactic lectures will be given, and clinical instruction will be given in the theatres and out-door departments of the Hospitals.

The Fifth Year will be devoted exclusively to hospital work. Each student will be required to personally conduct and record the routine examination of patients assigned to him in the wards of the Hospitals. He will also be required to carry out the necessary examination of blood, sputa and urine in the hospital laboratories and to attend and report on autopsies on patients assigned to him. Instruction in the theatres and wards will be given on four days of the week and, as occasion offers, joint sessions will be held with the pathological department in which the clinical and pathological features of certain cases may be compared.

The out-door department of each Hospital has a large neurological clinic, which will be utilized for instruction, and for teaching the uses of electricity in diagnosis and treatment.

Special clinics are also devoted to the diseases of children, and groups of students will attend in rotation.

Infectious diseases will be demonstrated to groups of students in the Fourth or Fifth Year, the large number of cases under treatment at the Alexandra Hospital being available for this purpose.

### HISTORY OF MEDICINE,

PROFESSOR: -ANDREW MACPHAIL, B.A., M.D.

A course of twelve lectures will be given upon the History of Medicine to all undergraduates in the Faculty who desire to inform themselves upon the progress of the science. It is the intention to examine the causes which produced the varying conceptions of medicine in times past, rather than burden the student with a narration of facts and a recital of biographies.

#### SURGERY AND CLINICAL SURGERY.

Professors:— { James Bell, M.D. George E. Armstrong, M.D.

Assistant Professors:— $\{A. E. Garrow, M.D. J. A. Hutchison, M.D. \}$ 

ASSISTANT PROFESSOR IN SURGERY:-J. M. ELDER, B.A., M.D.

LECTURERS IN CLINICAL SURGERY: | J. M. Elder, B.A. M.D. KENNETH CAMERON, B.A., M.D. E. W. Archibald, B.A., M.D. W. L. Barlow, M.D.

DEMONSTRATORS IN CLINICAL { C. B. KEENAN, M.D. A. T. BAZIN, M.D. (A. R. PENNOYER, M.D.

Demonstrators in Orthopoedic W. G. Turner, M.D. Surgery:— A. McK. Forbes, M.D.

Assistant Demonstrators | E. M. von Eberts, M.D. | W. H. P. Hill, M.D. | C. K. P. Henry, M.D. | R. P. Campbell, B.A., M.D. |

## PRINCIPLES AND PRACTICE OF SURGERY.

The course of didactic lectures on the Principles and Practice of Surgery and Surgical Pathology is illustrated by a large collection of preparations from the Museum, as well as by fresh specimens obtained from cases under observation at the hospitals and by lantern slides.

This course will cover the whole field of surgery and will thus include some of the rarer conditions which of necessity do not often come within the sphere of clinical teaching. It is intended to be, as far as possible, complemental to the clinical teaching and to deal mainly with those aspects of surgical diseases which cannot be fully dealt with by the clinical teacher. With this object in view the groups or classes into which surgical conditions naturally arrange themselves will be taken up and dealt with analytically instead of endeavouring to follow the systematic arrangement of the text-books. For a full and systematic description of diseases the student is referred to the text-book.

## CLINICAL SURGERY.

The teaching in Clinical Surgery is conducted at the Montreal General and Royal Victoria Hospitals.

(1) In the amphitheatre of each of these hospitals, demonstrations are given and operations are performed before the

Senior and Junior Classes on alternate days.

(2) Small ward classes of about ten men in each are taken through the wards daily by the surgeons in attendance, at each hospital, and instruction given at the bedside concerning the nature and management of surgical cases. Similar classes are also taken into the wards daily by the Surgical Assistants for instruction in diagnosis and reporting.

(3) 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 to graduation.

(4) 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, M.D.
LECTURER:—D. J. EVANS, M.D.
H. M. LITTLE, B.A., M.D.
JAMES BARCLAY, M.D.
H. R. D. GRAY, B.A., M.D.
(J. W. DUNCAN, M.D.

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 the deformities of the pelvis, wax preparations, bronze mechanical pelvis, etc.; (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

Tarnier-Budin phantom; (4) the diseases of infancy; (5) a course of individual clinical instruction at the Montreal Maternity.

The course is carefully graded and instruction is given separately to students of the Third and Fourth Years.

Particular attention is given to clinical instruction, and a clinical examination similar to that held in Medicine and Surgery, forms an important part of the Final Examination.

A short course of lectures on Diseases of Infancy is given, supplemented by clinical demonstration and ward work. The demonstrators give special demonstrations from time to time and take the students in groups for the purpose of examination and review.

#### GYNAECOLOGY.

PROFESSOR:—WM. GARDNER, M.D.

LECTURERS:—

{ F. A. L. LOCKHART, M.B. W. W. CHIPMAN, B.A., M.D. DAVID PATRICK, M.D. J. R. GOODALL, B.A., M.D. H. M. LITTLE, B.A., M.D.

The didactic course 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 are 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 menstruation; leucorrhæa; diseases of the external genital organs; inflammations, lacerations and displacements of the uterus; the infections of the pelvic peritoneum and cellular tissue and the uterine appendages; 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, morbid specimens and lantern slides.

Clinical teaching, including out-patient and bed-side instruction is given at both the Royal Victoria and Montreal General Hospitals by Professor Gardner and Doctors Lockhart, Chipman, Patrick and Goodall. 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 outpatient 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, forms part of the Final Examination.

#### OPHTHALMOLOGY.

Professor:—J. W. Stirling, M.B.

Lecturers:—{ W. G. M. Byers, M.D.
G. H. Mathewson, B.A., M.D.

Demonstrators:— { F. T. Tooke, B.A., M.D. S. H. McKee, B.A., M.D.

For the Four Year Course there will be about twenty didactic lectures on Ophthalmology, delivered at the College buildings. In these will be discussed especially the methodical, clinical examination of the organ of sight, the classification and pathology of the diseases affecting it, and the general principles underlying the diagnosis and treatment of affections of the eye.

Systematic clinical instruction will be given at the biweekly clinics in the out-patient departments of the General and Royal Victoria Hospitals, where students have unexcelled opportunities for thoroughly grounding themselves in the work of this branch. The operative work in eye surgery is fully open to undergraduates on days set apart for the purpose, and special courses of instruction in refractive work and the use of the ophthalmoscope can also be arranged for at times convenient to the teachers and students. Five Year Course.—It is intended to make this course as practical as possible, and with this end in view the following scheme has been prepared:—

In the Fourth Year there will be a didactic course of about fifteen lectures, delivered at the University. The more unusual diseases of the eye will be fully described, while the commoner diseases will merely be touched on, the fuller consideration of the latter being reserved for the clinical lectures to be delivered in the Fifth Year. In addition, in the Fourth Year there will be tutorial classes on the methods of examination of the eye, the use of the ophthalmoscope, and the refraction of the eye.

In the Fifth Year there will be a regular course of clinical lectures at the Royal Victoria and Montreal General Hospitals, as well as a tutorial course in operations on the cadaver, and also one on the bacteriology of the eye.

#### OTO-LARYNGOLOGY.

PROFESSOR: -H. S. BIRKETT, M.D.

DEMONSTRATOR OF RHINOLOGY & LARYNGOLOGY:-H. D. HAMILTON, B.A., M.D.

Demonstrator of Oto-Laryngology:—W. H. Jamieson, M.D. Demonstrator of Rhinology and Laryngology:—

R. H. CRAIG, M.D.

This course will consist of clinical instruction, carried on in the out-door department of both the General and Royal Victoria Hospitals, on the diagnosis and treatment of diseases of the nose, throat and ear, including practical lessons on the use of the laryngoscope, rhinoscope and methods of examining the ear. This instruction will be carried out with small classes, so that individual attention may be insured. A few didactic lectures will be delivered on the more important diseases of the ear.

#### MENTAL DISEASES.

PROFESSOR: -T. J. W. BURGESS, M.D.

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 Hospital, where clinical instruction will be given to visiting groups of senior students at intervals throughout the Session.

#### DISEASES OF INFANTS AND CHILDREN.

Professors:— { J. C. Cameron, M.D. A. D. Blackader, B.A., M.D. Lecturers:— { G. G. Campbell, M.D. D. J. Evans, M.D. D. M. Fisk, M.D. A. C. P. Howard, M.D.

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 and Royal Victoria Hospitals, at the Infants' Home, and at the Montreal Foundling and Sick Baby Hospital.

#### CLINICAL MICROSCOPY.

This course, which is given during the spring term of the Third Year, is essentially a practical one and is in charge of Professor C. F. Martin, assisted by Drs. W. F. Hamilton, G. G. Campbell, Ridley MacKenzie, A. A. Bruère, C. F. Wylde, and other teachers connected with the department of Clinical Medicine.

It is a laboratory course, forming part of the Third Year instruction in Medicine, and is held in the pathological laboratory of the Medical Building. The classes are held twice weekly, each demonstration lasting two hours.

Students are given instruction in the microscopic appearances of the normal and abnormal sediments in the urine, in

the preparation and staining of films from pus and sputum for pathogenic bacteria, in the methods of examination of the blood, including the use of the hæmoglobinometer, hæmocytometer, microspectroscope, the determination of the specific gravity, the examination of fresh films, the preparation of stained blood films and the method of making differential leucocyte counts. The instruction also comprises the microscopic examination of stomach contents and fæces, for the recognition of abnormal cellular elements, fat, blood, bacteria and animal parasites; the examination of exudates and other pathological fluids obtained by puncture, and also the examination of hairs for the parasites of ringworm and favus.

In addition to this the student is given an opportunity of examining the various bacteria of importance in Clinical Medicine and Surgery.

Various specimens of special interest, which are found in the hospitals from time to time, are examined as occasion arises at the demonstrations.

#### DERMATOLOGY.

PROFESSOR: -F. J. SHEPHERD, M.D., LL.D., (Edin.) LECTURER: -G. G. CAMPBELL, M.D. DEMONSTRATOR: -W. P. BURNETT, M.D.

The course is entirely clinical, consisting of a weekly theatre clinic at the Montreal General Hospital, by Prof. Shepherd, on specially selected cases, and an outdoor clinic, by Drs. G. G. Campbell, at the Montreal General Hospital, and W. P. Burnett at the Royal Victoria Hospital, throughout the Session. Lantern slides are made use of to illustrate the course; also a large series of colored plates and photographs.

#### TEXT BOOKS.

ANATOMY.—Cunningham, Gray, Morris, Quain (Eng. ed.), Gerrish.
PRACTICAL ANATOMY.—Cunningham's Practical Anatomy, Ellis's
Demonstrations, Holden's Dissector and Landmarks. Dermatology.—Stellwagon, Malcolm, Morris, Walker's introduction to Determatology, Hyde and Montgomery, Crocker, Pusey.

Physics.—Carhart and Chute, Llementary Physics.

INORGANIC CHEMISTRY.—Newth's Text-Book.

ORGANIC CHEMISTRY.—Remsen.

BIOLOGICAL AND CLINICAL CHEMISTRY.—Outlines of Physiological Chemistry, Beebe and Buxton; Clinical Chemistry, A. E. Austin. For Reference.—Holleman's Inorganic; Holleman's Organic; Witt-

thaus' Manual; Ogden, Clinical Examination of the Urine.)
PHYSIOLOGY.—Halliburton, Foster, Stewart, Mills's Text-Book of Animal Physiology, Howell's American Text-Book, Brubacker Hall, Mills's Class Laboratory Exercises.

GENERAL PATHOLOGY.—Delafield and Prudden, Sidney Martin, Green,

Ziegler, Well's Chemical Pathology. Adami, Inflammation. Special Pathology.—Stengel's American Text-Book, Zeigler, Coplin, Catalogue of McGill Pathological Museum.

PRACTICAL PATHOLOGY.—Mallory and Wright, Cattell's Post Mortem Technique.

BACTERIOLOGY.—Muir and Ritchie, McFarland, Park.

Practical Bacteriology.—Eyre, Connell.

PRACTICE OF MEDICINE.—Osler, Tyson, Wood and Fitz, J. M. Anders, Hare.

CLINICAL MEDICINE.—Rainey and Hutchison, Musser's Medical Diagnosis, Simon, Klemperer, Vierodt's Medical Diagnosis, Sahli, Diagnostic Methods.

Hygiene.—Davies, Harrington, Abbott's Transmissible Diseases, Notter and Firth, Parks and Kenwood, Stevenson and Murphy. Histology.—Schafer's Essentials of Histology, Stohr, Szymonowicz, Bailey, Ferguson, Bohn and Davidoff.

OPERATIVE SURGERY.—Binnie, Treves, Kocher. Surgery.—Walsham, American Text-Book of Surgery, Da Costa, Rose & Carliss, Warren & Gould, Park.

MEDICAL JURISPRUDENCE.—Mann, Draper Legal Medicine.

PHARMACOLOGY AND THERAPEUTICS.—Butler, Hare, Wood, Cushny, Sollman, Hale, White, Forcheimer (For Reference-United States Dispensatory, Remington's Pharmacy).

DISEASES OF CHILDREN.—Holt, Rotch, Ruhra, Forcheimer, Williams, Graetzer, Hecker and Trumpp. (Abt.), McCaw.

NERVOUS DISEASES.—Church and Peterson, 5th ed., Atlas of the Ner-

vous System and its Diseases, Jacob, Starr.
MENTAL DISEASES.—Insanity and its Treatment, Blandford, 4th Ed. (For Reference, A Practical Manual of Insanity, Brown & Bannister, Kraft Ebing.)

Obstetrics.-Jewett, Hirst, American Text-Book, Jellet, Wright, and Evan's Pocket Text-Book, McGill Obstetric Note Book, Renouf's Obstetric Phantom.

DISEASES OF INFANCY.—Fischer.

GYNAECOLOGY.—Hart and Barbour, Dudley on Diseases of Women,

Montgmery, Webster,
Biology.—Botany.—Gray's Text-Book of Histology and Physiology;
Zoology, Shipley and MacBride's Introduction to Zoology.\* Embryology.—Heesler, Text-Book of Embryology.

<sup>\*</sup>Each student will be required to pay \$2.50 in order to cover the cost of a class book, dissecting instruments and other necessaries, which are supplied to him and become his property.

OPHTHALMOLOGY.—Swantzy; The Commoner Diseases of the Eye, Wood & Woodruff; Berry; Fuchs.

Oto-Laryngology.—Bacon, Politzer (Ear), Watson Williams; Posey and Wright (Diseases of Nose and Throat and Ear, Vol. II.); Diseases of Nose, Throat and Ear, by Charles H. Knight, M.D. MEDICAL DICTIONARY.—Gould, Dorland, Dunglison, Hobly.

### DOUBLE COURSES.

By special arrangement with the Faculty of Arts, it is now possible for students to obtain the two Degrees, B.A. and M.D. or B.Sc. and M.D., after only seven years of study.

Double course students who intend to practise in the Province of Quebec, are required to matriculate and register with the Quebec Licensing Board not later than the end of their Third Year in Arts. (For full particulars, see pages 108-110.)

# POST-GRADUATE AND ADVANCED COURSES.

The Faculty of Medicine in 1896 established post-graduate and special courses in connection with the Montreal General and Royal Victoria Hospitals and the various laboratories in the University buildings.

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 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 to undergraduates in Medicine of this University.

# The Post-Graduate Course of 1908.

The twelfth regular course of instruction for post-graduate students in the Faculty of Medicine will be given during the month of June, 1908, commencing on Monday, June 1st, and ending on Friday, June 26th.

A circular containing full information regarding courses, fees, etc., has been prepared and can be obtained on application to Dr. J. W. Scane, Registrar of the Faculty of Medicine.

#### HYGIENE,

The Faculty in the session 1899-1900 instituted a post-graduate course in Public Health and Sanitary Service.

Special instruction is given in this department, leading to the Diploma of Public Health; also for Engineers, Architects, and those wishing to include this subject in their final examination for the degree of Doctor of Philosophy (Ph.D.).

A small fee will be charged for each of the three last named courses, full particulars of which are given in the Medical Calendar.

## (1) DIPLOMA COURSE IN PUBLIC HEALTH.

Candidates undertaking this course must have possessed a Degree in Medicine, or other qualification for practice, for at least twelve months before he is competent to receive the diploma. The courses prescribed are as follows:—

1. A course of lectures in Public Health (to be omitted in the case of candidates who have attended such a course before graduation).

2. A three months' course in Bacteriology, special attention being directed to the pathogenic organisms and parasites—such course to be omitted on presentation of proof that it has previously been taken.

3. A six months' course of practical study of out-door sanitary work under a medical officer of health (to be omitted in the case of medical health officers holding appointments prior to the establishment of this diploma course).

4. Three months' attendance and clinical instruction at a hospital for infectious diseases (unless such course has already been taken prior to graduation).

5. Three months' instruction in sanitary Chemistry and Physics, with practical work in a chemical laboratory.

The examination for the Diploma shall cover the following subjects:—examination of clinical cases at an infectious hospital; the drawing up of outlines for annual and other reports of officers of health; a report upon the sanitary condition of some actual locality; the chemical analysis of liquids and gases and of specimens of food; demonstration of the consideration and use of meteorological, hygienic and sanitary apparatus; microscopical examination of specimens submitted; description of specimens of human and other diseased tissues; practical examination in the employment of the usual bacteriological methods; the inspection of carcasses of animals to be used for food.

The above examination shall be written, oral and practical, and shall extend over a period of four days.

The following is a list of subjects included in the curriculum of study:—

- (a) Sanitary Chemistry:—Examination of air, gases, water, the action of water on metals; milk, food and beverages; detection of poisons in articles of dress and of decoration; the chemistry of sewage.
- (b) Sanitary Physics:—Principles of statics, pneumatics, hydraulics, light, light and photometry, heat and thermometry, the principles of hygrometry, (only in their application to hygiene).
- (c) Sanitary Legislation:—Statutes and by-laws relating to public health; the powers of public sanitary authorities.
- (d) Bacteriology and Parasitology:—Modes of propagation of disease and transmission of disease between man and man, and man and animals; bacteriological analysis in relation to public health matters; natural history of microbes and animal parasites.
- (e) Vital Statistics:—Calculation and tabulation of returns of births, marriages, deaths, and diseases.
- (f) Meteorology and Climatology, including the geographical and topographical distribution of disease.
  - (g) Preventive Medicine and Practical Sanitation.

The fee for the Diploma, including laboratory fee, shall be \$50.00.

### CLINICAL INSTRUCTION.

Few Medical Schools are able to offer such excellent facilities for clinical instruction as the Medical Faculty of McGill University. This is so, because of the extensive field afforded for such instruction in the Montreal General and the Royal Victoria Hospitals, both of which have at least a continental reputation.

Clinics are held regularly in all subjects in both hospitals, and tutorial instruction is given in the wards, out-patient rooms and laboratories. Besides this, every facility is afforded in the Montreal Maternity Hospital for acquiring a practical knowledge of the various obstetric manipulations and the management and after treatment of cases. Full particulars regarding the character of this part of the work, with detailed descriptions of the Hospitals, are given in the Medical Calendar, which will be sent on application.

#### 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.

The Anatomical Museum was completely destroyed, and the Museum of Pathology seriously damaged, by the recent fire in the Medical buildings. Both these departments are, however, rapidly collecting new specimens. Many have already been received from the Army and Navy Museum of Washington, D.C., from the University of Edinburgh, and from other institutions. The Museum of Public Health and Preventive Medicine and the Museum of Pharmacy were not damaged, and are still available for teaching purposes.

Each collection is arranged and selected with the primary object of making it a teaching museum. The several collections are open to students and the public between 9 a.m. and 6 p.m.

#### LIBRARY.

LIBRARIAN:—PROF. F. G. FINLEY.

ASSISTANT LIBRARIAN:—MISS M. R. CHARLTON.

The Library of the Medical Faculty now comprises upwards of twenty-three 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; and also those of the Montreal Veterinary Medical Association and of the Society of Comparative Physiology.

The Faculty is also indebted to Dr. D. McEachran for the fine library of the late Dr. Gadsden, and for a large number of rare and valuable works bearing on comparative medicine.

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., and from 7.30 to 10.30 p.m.

After the fire of April 16th last the Library was removed to the University Library where it will remain until the new Medical Building is ready. A large reading room has also been provided in the University Library for the teachers and students of this Faculty.

#### McGILL MEDICAL SOCIETY.

This Society, composed of registered students of the Faculty, meets every alternate Friday 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 First, Second and Third 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 must be sent to the Chairman of the Programme Committee before September 1st, and all papers are subject to the call of the Committee on October 1st. All papers must be handed in for examination on or before January 10th.

The students' reading room, in which the leading English and American Medical Journals are on file, as well as the leading daily and weekly newspapers of the Dominion, has been placed under the control of this Society.

# SPECIAL INFORMATION REGARDING THE COURSE IN DENTISTRY.

THE SESSION 1908-1909 WILL OPEN ON WDENESDAY, SEPTEMBER 16TH, 1908. STUDENTS MAY REGISTER AT ANY TIME DURING THE PRECEDING WEEK.

The course in Dentistry extends over four sessions of eight months each and leads to the Degrees of M.D.S. and D.D.S. The lectures of the first two years will be given, and the laboratory and other practical work done, at the Medical College. The work during the last two years and part of the second year has special reference to Dentistry proper, and will be carried on chiefly at the Dental College.

#### MATRICULATION.

Students in Dentistry must pass the matriculation examination required of students in Medicine, for particulars of which see page. Those who intend to practise in the Province of Quebec must pass the matriculation examination of the Dental Association, if they do not hold a Degree in Arts or Medicine from a recognized British or Canadian University. A certificate of having passed this examination will be accepted as a full equivalent for the matriculation examination of this University.

The fee for the Dental Association examination is \$20.00, and is payable to the Secretary, Dr. Eudore Dubeau, 396 St. Denis Street, Montreal, from whom all further information can be obtained.

FEES.

See page 70.

#### AUMISSION TO PRACTICE.

In accordance with the provisions of the Dental Act, candidates intending to practise in the Province of Quebec must sign indentures, before a Notary Public, with a licentiate of Dental Surgery in active practice in the Province, four years before being admitted to the profession. He should, therefore, register with the Dental Board at the beginning of his College course.

The requirements for admission to study and practice in the other provinces of the Dominion (British Columbia excepted) will be learned by corresponding with the secretary of the Dominion Dental Association.

### REQUIREMENTS FOR THE DEGREE.

The Degree of Master of Dental Surgery (M.D.S.) will be conferred only on candidates who (1) have attained the full age of twenty-one years, (2) are of good moral character, (3) have attended for four regular sessions, (4) have paid all the required fees, and (5) have passed the prescribed examinations.

#### COURSE OF STUDY

FIRST YEAR:—Anatomy, Practical Anatomy, Physics, Inorganic Chemistry, Practical Chemistry, Histology, Biology and Embryology, Bacteriology.

SECOND YEAR:—Anatomy and Practical Anatomy (course completed at Christmas), Physiology, Practical Physiology, Organic Chemistry, Bio-Chemistry, Histology, Pharmacy, Pharmacology, Operative Dental Technique, Prosthetic Technique and Dental Anatomy.

THIRD AND FOURTH YEARS:—General Pathology, Bacteriology, Operative and Mechanical Dentistry, Crown and Bridge-Work, Practical work in Infirmary. Dental Pathology, Materia Medica, Orthodontia, and Dental Surgery.

### UNIVERSITY BUILDINGS.

#### THE CENTRE BUILDING.

This building, the first and oldest building of McGill College, contains the lecture-rooms of the Faculty of Arts and the botanical laboratories in the centre. The East Wing contains the newly equipped zoological laboratories, the offices of the Administration, and the lecture rooms of the Faculty of Law. The West Wing (the old Molson Convocation and Examination Hall) is now used for examination purposes only.

The botanical laboratories are described in detail on page 318, the

zoological laboratories on page 331.

#### THE MEDICAL BUILDING.

Before the fire in April, 1907, this building was the largest on the University campus, the total length being 280 feet and the maximum width 145 feet, with a capacity of about 1,750,000 cubic feet. A large part of the building was saved from the fire and has been rearranged to provide the necessary teaching facilities for students of the first two years especially. Senior students find ample lecture room accommodation in the theatres of the Royal Victoria and Montreal General Hospitals, in connection with which a large part of their work is carried on. Fortunately all the laboratories were situated in the part of the building which still stands, so that no student (senior or junior) suffers at all in so far as laboratory instruction is concerned. In May, of this year, 1908, the erection of a modern and magnificent Medical Building (to cost at least half a million doilars) will be begun on a new site, and by the opening of the Session 1909-1910 a large part of it will be available for teaching purposes. In the meantime, the work of instruction is being conducted on the usual thorough and efficient lines.

### THE MACDONALD ENGINEERING BUILDING.

The new building, which is erected on the site of the old one destroyed by fire on the 5th of April, 1907, will be ready for the reception of students by the opening of the session 1908-1909. designed to provide accommodation for six hundred students. The Departments of Civil Engineering, Architecture and Transportation are permanently provided for in this building, while the Departments of Electrical and Mechanical Engineering are given temporary accommodation until such time as independent buildings can be provided for their growing numbers, but this temporary accommodation is for the present quite ample. The ground floor is given up to the Civil Engineering, Geodetic, Electrical and Mechanical Engineering

laboratories and is for the most part 23 feet in height. Mechanical and Electrical Engineering Laboratories and the Workshops also occupy the three lower floors of the Workman Building. The centre portion of the second floor will be used for purposes of administration (Faculty Room, offices, library, etc.). The front parts of the second and third floors are occupied by eight classrooms, which contain 470 sittings, while the upper floors both of the Engineering Building and the Workman Building are devoted to drafting rooms containing over 500 tables.

The building throughout is of the most approved fire-proof construction, not only in the matter of materials, but in arrangement as well, the several floors being divided by fire walls and fire doors into separate sections. A repetition of the disaster of April 5th last will be impossible, as the areas which could be attacked by fire are very limited and all the floors and partitions are incombustible.

The building has been erected at a cost of about half a million of dollars and is considerably larger than the old one. Very little of the splendid laboratory equipment in the old building was destroyed, and as a great deal has been received in the shape of donations and acquired by purchase in the meantime, the laboratories will, generally speaking, be much better adapted for teaching purposes than they were before.

A detailed description of the laboratories and workshops and their equipment will be found on pages 320 et seqq.

### MACDONALD CHEMISTRY AND MINING BUILDING.

Admirable facilities are afforded in the Macdonald Chemistry and Mining Building for study and research in the departments of Chemistry, Metallurgy, Mining, Mineralogy and Geology. The building was erected, equipped and endowed by Sir William C. Macdonald. It is spacious, admirably lighted, heated by hot water and ventilated by electric fans. In addition to the large Lecture Theatre, which seats about 250 students, there are four lecture rooms for smaller classes, and a number of offices.

There are three large general Chemical laboratories, large laboratories for Ore-dressing and Metallurgy and a number of smaller rooms for special purposes, including research work. Among the special laboratories may be mentioned those for Organic Chemistry, Physical Chemistry, Electrolytic Analysis, Gas Analysis, Iron and Steel Analysis, Fire Assaying, Water Analysis, Determinative Mineralogy, Petrography, Photography, etc.

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 Centralblatt, Fresenius' Zeitschrift für Aanalytische Chemie, Annales de Chemie et de Physique, Journal of the Chemical Society, Journal of the Society of Chemical Industry, 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 rooms for allied purposes have, as far as possible, been grouped together on the same floor, and there is a hydraulic lift run-

ning from the basement to the attic. The offices and principal daboratories and supply rooms are also connected by a system of telephones. The building is practically fire-proof.

A detailed description of the laboratories and their equipment is

given on page 319.

### THE MACDONALD PHYSICS BUILDING.

The Macdonald Physics Building, another of Sir William C. Macdonald's gifts to the University, 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.

A detailed description of the laboratories and their equipment is

given on page 326.

# THE ROYAL VICTORIA COLLEGE FOR WOMEN.

This residential college for the women students of McGill University, erected and endowed by Lord Strathcona and Mount Royal, is situated on Sherbrooke Street in close proximity to the University buildings and laboratories. The professors and lecturers of the University are thereby enabled to give their services in the conduct of the

Full particulars regarding the College, terms of residence, etc., are

given on pages 340 to 344.

### THE UNIVERSITY LIBRARY.

Librarian:-Charles H. Gould, B.A.

The general library is housed in the fine Romanesque building

erected in 1893 by the late Mr. Peter Redpath.

Dignified and convenient as orginally designed, it was improved and greatly enlarged in 1900, by the late Mrs. Peter Redpath. It now possesses ample accommodation for three hundred and fifty readers, of whom fully one hundred can be provided for in the seminary/rooms and special studies.

The main architectural feature of the interior is the general reading room, 110 feet long, 44 feet wide, 34 feet high. It will seat one hundred and fifty readers and has open shelves for about 4,000 volumes.

The book stack, four and five storeys high, of approved type, excellently lighted and ventilated, with four reading bays on each storey, has a working capacity of 250,000 volumes, besides special provision for the storage of maps and of newspapers.

A description of the collections and other particulars are given

on page 87.

#### THE PETER REDPATH MUSEUM.

Senior Curator: Prof. D. P. Penhallow, D.Sc.

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 50,000 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 archæological and ethnological objects, including collections from the Queen Charlotte Islands, from Egypt, and from South Equatorial West Africa.
- 3. This room opens into the great Museum Hall, on each side of which are alcoves with upright and table cases containing the collections in Palæontology 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 storey 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 Cabpenter Collection of shells is especially noteworthy for its arrangement and completeness.

Papers or memoirs relating to certain type specimens in the collections can be obtained from the Assistant Curator. Classes of pupils from schools can be admitted on certain days under regulations which may be learned from the Professors or from the Registrar of the University.

#### THE OBSERVATORY.

Latitude, N. 45° 30' 17". Longitude, 4h. 54m. 18s. 67.

Height above sea level, 187 feet.

Superintendent: - C. H. McLeod, Ma.E.

The Observatory, in which courses of instruction are given in the use of meteorological instruments and in astronomical work, is situated at the head of the University campus.

Meteorological observations.—Records of temperature, atmospheric pressure, wind velocity and direction, and sunshine are obtained by self-recording instruments. Check observations are made at 7.40 a.m., 3 p.m., and 7.40 p.m. on standard instruments.

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 (4½ in.); a 3¼ in. transit with Repsold micrometer recorder, a prismatic (8 cm.) transit instrument, also arranged as a zenith telescope; two sidereal clocks, one being a Riefler movement in an air tight case; one mean time clock; several sidereal and mean time chronometers; one chronograph; batteries, telegraph lines, and minor instruments.

Observations for clock errors are made on nearly every clear night. Time exchanges are regularly made with the 1 oronto 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.

bells; and to the country through the telegraph lines.

The longitude of the Observatory was determined in 1892 by direct telegraph connection with Greenwich, with exchange of observers and instruments.

In addition to the usual standard meteorological instruments the Observatory is equipped with a Richard barograph, a Richard thermograph and a Calendar thermograph, the latter being employed for differential temperatures between the summit of Mount Royal and the Observatory. The anemometer and vane giving records by electrical connection with the Observatory are situated on the summit of Mount Royal at a point about 34 of a mile northwest of the Observatory. They are 57 feet above the surface of the ground and 810 feet above sea-level. The rainfall of the station is also measured by a self-recording electrical instrument.

#### THE McGILL UNION.

The McGill Union stands on a convenient site at the corner of Sherbrooke and Victoria Streets, within two minutes' walk of the College gates. The building measures 93 feet by 71 feet, and consists of three storeys and a basement. It has been erected and furnished by Sir William Macdonald at a cost of over \$135,000. The building externally is an example of a severe type of English classic, executed in the local grey stone.

The main floor, entered from Sherbrooke Street, is devoted to dining and luncheon rooms. The dining table (table d'hôte and á la carte) will accommodate 120 at a time, and the luncheon room 80. It is, therefore, possible to lunch at least 500 students between the hours of 12 noon and 2 p.m.

On the second floor, billiard rooms, a news hall, a reading-room and library, a study and a lounging gallery ((88 feet by 21 feet) are

provided.

The Great Hall, suitable for debates, public meetings, &c., is situated in the top storey. The hall measures 88 feet by 45 feet, and has a total seating capacity of 400. Adjoining the Hall is the Music Room and at the top of the building four bed-rooms will be found set aside for graduate members re-visiting the City.

The basement is divided between the kitchen and offices, the caretaker's quarters, baths, locker rooms, laboratories and an exercise room 24 feet by 38 feet for boxing and fencing.

The Union has now been in existence for two years and is rapidly becoming the centre of all student activities. Membership is open to all students of the University, without restriction, on payment of the annual fee of \$5.00. This fee may be paid to the Bursar of the University or to the Secretary of the Union.

#### STRATHCONA HALL.

This building-the home of the Young Men's Christian Association of McGill University-is the property of the Association, and is

not, therefore, strictly speaking, a University building,

Strathcona Hall is 55 feet wide by 110 feet deep, and is five storeys in height. The three upper storeys are arranged to afford residential accommodation for about 60 men. The rooms on these floors are of various sizes. They are, for the most part, single, but some of them are arranged en suite. Each floor is amply provided with baths, etc., of the most modern type.

The second floor contains a large reading-room, a large game room, and five small rooms to be arranged as studies or for the use of various clubs and societies. The apartments of the General Secre-

tary of the Association are also on this floor.

The Secretary's Office is on the ground floor, which also contains sitting rooms, cloak rooms and a hall, capable of seating 350 persons.

The basement, which is high and well lighted, has a bowling alley, as well as a large room in which a second-hand Book Exchange is conducted during the opening weeks of the college session, and which throughout the session, is used in connection with the social work of the Association.

The building is throughout of the most modern type of construc-

tion, and is absolutely fire-proof.

# LABORATORIES, MUSEUMS, AND WORKSHOPS.

### LABORATORIES.

ASSAYING LABORATORY.

See Mining and Metallurgical Laboratories.

ASTRONOMICAL OBSERVATORY.

See Geodetic Laboratory.

### BOTANICAL LABORATORIES.

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

The laboratory for general Morphology provides table accommodation for twenty 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

The laboratories for special Morphology at present afford accommodation for twelve students. Each table is provided with a complete outfit of instruments and reagents. Provision is also made for accurate micrometic work and for the production of accurate drawings by means of the camera lucida and Leitz's drawing instrument. More special instruments, including polariscope, spectroscope and photographic apparatus, afford opportunity for detailed studies in these several directions. A supply of physiological apparatus permits the demonstration through actual experimentation, of some of the more prominent plant activities as expressed in movement, transpiration, respiration, geotropism, movement of the nutrient fluids, rate of

An investigator's table held by the University at the Biological Laboratory, Wood's Hall, Massachusetts, is available for such students as may successfully complete the advanced course of the Third and Fourth Years.

Properly qualified graduate students are eligible to the occupation of tables for the investigation of problems in marine biology, at any one of the stations administered by the Board of Directors of the Biological Stations of Canada.

#### CEMENT LABORATORY.

The equipment of the laboratory renders it possible to carry out complete tests of the strength and properties of cements, mortars,

concretes, concrete beams, etc., and includes:—

(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) Vicat's 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 apparatus for placing mortar into the moulds under a uniform pressure, which, together with the mechanical mixers, enable the personal errors 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.

(k) A Boehme hammer, with all accessories.

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 nattural 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, using hot water in mixing mortars.

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 sand.

#### CHEMICAL LABORATORIES.

### (In the 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 other 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.

Physicial 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, of the rise of boiling point, and of 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 measur-

ing the heat effects produced in chemical reactions. On the same floor there is an optical room, devoted more particularly to crystallographic work and furnished with goniometers, polarising microscopes, axial-angle apparatus, refractometers, etc. 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 provided with the necessary appliances for all ordinary photographic work, including an enlarging camera and ap-

paratus for micro-photography.

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 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,

Another room has lately been 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 poisionous 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. 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 materials 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 the cutting and polish-

ing of minerals and rocks.

#### ELECTRICAL LABORATORIES.

The several electrical laboratories are the Standardizing Laboratory, the Fourth Year Dynamo Laboratory, the Third Year Dynamo Laboratory, the High Tension Laboratory, the Photometer Room and a Laboratory for special investigation. Power is supplied in the form of direct current from a number of independent sources and converted when alternating current is required by motor generator sets or by inverted rotaries. The equipment of the laboratories includes, besides the usual current-limiting and controlling devices of an ample supply of voltage, current, power, speed, etc., and metering instruments, and practically all of the principal types of commutating, synchronous and induction machinery.

- (a) The Standardizing Laboratory is equipped with a Weston laboratory standard ammeter, range with shunts, .075 to 500 amperes; a Weston laboratory standard D. C. voltmeter, range with multipliers o to 3000 volts; Weston laboratory standard wattmeters; a special Weston Potentiometer for current and e.m.f. measurement; a Leeds & Northrup Conductivity Bridge, standard resistances from a fraction of an ohm to a megohm, standard cells, standard capacities, etc., etc. Alternating currents of several wave shapes and frequencies from 15-150 periods per second and voltages up to 200,000 is available. A special transformer having a capacity of 800 amperes is used for alternating current ammeter calibration. For alternating current voltmeter calibration a special regulator is provided, by which voltages from 0-200 can be obtained in as small steps as desired.
- (b) The Fourth Year Dynamo Laboratory.—In this laboratory, which is situated on the ground floor of the Engineering Building, all dynamos are motor driven. Speed regulation is attained either by varying the voltage supply to the motor or by varying the motor field current. Power is obtained from three independent sources of supply, two 75 k.w. D. C. direct connected units in the service plant and one 300 k.w. hour storage battery. All generators and motors are mounted on strong testing benches of different heights with slotted floor, so that any machine when placed on the bench may be quickly secured in any desired position. These benches are supported on longitudinal slotted rails and may be moved to any position in the laboratory and there bolted to the rail. An overhead 3 motor electric travelling crane permits of rapid transference of machines. All wiring is done below the floor level in passages provided for the purpose and special switchboards are provided for current distribution. The starting resistances are placed in concrete compartments. Special testing tables fitted with switches, circuit breakers, etc., facilitate the work. Sixteen alternating current machines, including single, two and three phase generators, synchronous motors, synchronous converters, together with stationary and rotary induction apparatus are provided for alternating work. Large variation of wave form may be obtained by the use of specially shaped inductors and field poles. Induction motors with wire wound rotors serve as induction generators and frequency changers. The laboratory is likewise provided with about one hundred voltmeters, ammeters and wattmeters of standard make and of different ranges; also speed indicators, condensers, rheostats, standard resistances, etc., etc.,
- (c) The Third Year Dynamo Laboratory.—This laboratory, situated on the second floor of the Workman building, is similar in design to the Fourth Year Laboratory, all generators being motor driven and mounted on convenient benches, and similarly supplied with power. Two hand operated travelling cranes facilitate the movement of the machines. It is equipped with twenty to thirty commutating machines; constant potential generators of various types; shunt, series and compound wound motors: variable speed interpole motors, boosters, dynamotors, closed and open coil constant current machines, varying in capacity to 40 kilowatts of many different makes. Some seventy-five voltmeters and ammeters are also provided, as well as the usual accompaniment of starting boxes, controllers, rheostats for absorbing power, etc.

(d) High Tension Laboratory.—This laboratory is equipped with a D.C.-A.C. motor generator set and four 10 K.W. 200-,50,000 volt 60 cycle transformers, and one 5 K.W. 100-25,000 volt 60 cycle transformer, with switchboard and suitable controlling devices. Current and voltage transformers and 100,000 volt direct reading Kelvin electrostatic voltmeter are also provided.

(e) The Photometer Room.—This room is equipped with standard photometric apparatus for candle power measurements of arc

and incandescent lamps.

(f) The Laboratory for special investigations adjoins the standardizing laboratory. Meter and transformer testing are also done in this room.

#### GEODETIC LABORATORY.

The equipment of this laboratory consists of:-

(I) 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) Three 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. The laboratory and clock rooms are constructed with double walls and enclosed air spaces, and their heating is controlled by special thermostadts, so that the temperature within may be brought to, and held at, any desired degree.

The ordinary course of instruction in this laboratory is described

on page

#### Astronomical Observatory.

The observatory equipment for the purpose of instruction in practical Astronomy consists of:-

I. A Bamberg prismatic transit with zenith attachment.

2. Five astronomical transits for meridian observations. Collimating telescopes.

A Troughton & Simms zenith telescope.

4. An astronomical transit in the prime vertical.

Sidereal and mean time clocks and chronometers.

6. Chronograph and electrical circuits by which observations and clock comparisons within or without the observatory may be made.

### HYDRAULIC LABORATORY.

In this laboratory the student studies experimentally the laws governing the flow of liquids through orifies, pipes, weirs, etc., and also carries out experiments on the efficiency of various forms of water motors running under different conditions as regards head and supply.

The equipment includes:—Apparatus for the measurement of the discharge of water from orifices, nozz'es, weirs, etc under varying conditions; arrangements for investigation of the loss of head by surface friction, and at curves and bends in pipes; Venturi meter for use at different discharges; a hydraulic ram working against different heads; various water motors, including Pelton wheels, Girard impulse turbine, Brotherhood three cylinder rotary engine, Thomson inward flow reaction turbine, American turbine; apparatus for measurement of pressure due to impact of jets on surfaces of different forms; gauge testing appliances; Heli Shaw's apparatus for study of the stream lines in a perfect fluid, illustrating the flow round obstructions in a hannel, lines of stress in plates, and numerous magnetic problems; numerous calibrated tanks, weighing appliances and measuring apparatus in connection with the above.

### MECHANICAL ENGINEERING LABORATORY.

The equipment of this Laboratory includes:—A belt-testing machine, capable of taking a six-inch belt at 15 feet centres (the machine includes special hydraulic dynamometers and a friction brake, and will absorb 15 H.P.); a Thurston railway-pattern oil-tester, fitted with water cooling and heating apparatus for varying the temperature of the brasses as desired; an Engler standard viscosimeter, and other necessary apparatus for the physical testing of lubricants; a specially designed hydraulic support and fittings for carrying out experiments on the action of cutting tools in the lathe; apparatus for experiments on the efficiency of pulleys and hoisting appliances, and on the efficiency of worm and other gearing; apparatus for governor-testing; apparatus for studying problems connected with the balancing of reciprocating engines; apparatus for testing of fans and blowers.

The Laboratory is used in connection with the courses in Mechanical Engineering subjects.

### METALLURIGICAL AND ASSAYING LABORATORIES.

These consist of a large furnace room of 2,200 sq. feet, for metallurgical operations, a furnace room for assaying of 1,300 sq. feet, a balance room, small analytical laboratory, and parts of other rooms, which are utilized for pyrometric and photo-microscopic work. The furnace room is fitted with a water-jacket blast-furnace, 21 inches inside diameter, for smelting lead and copper ores; also a hand reverberatory furnace for roasting ores, having a hearth 14 ft. by 6 ft., a Bruckner roasting furnace, and English cupellation furnace and a small gas producer.

It has also a large lead-lined chlorination-barrel for high pressures, with filter press, air pump, etc.

The furnace room adjoins the milling and ore dressing room (see below) and ores which have been crushed and dressed can easily be conveyed into the furnace room for roasting, smelting or leaching

treatments.

In addition to this comparatively large scale plant, apparatus is being provided to enable the students to study in detail the more important metallurgical operations using quantities of ore or metallurgical products of usually not more than a few pounds in weight. With such appliances the work of the student can be of a more individual character than is generally possible with large scale plant, and the reactions which occur can be more easily and exactly studied.

For the purpose of small scale work there is a large crucible furnace which can be used with either natural or forced draught, a large gas furnace which can be used either as an oven furnace or a muffle furnace, and a number of small muffle and crucible furnaces in the

assaying laboratory.

Small blast-furnaces, lined with brick, have been constructed, and used successfully for smelting small quantities of copper and Cobalt ores. A Roots' blower has been provided for the blast furnaces, and connections for supplying forced draft have been made to the gas and reverberatory furnaces. Electric furnaces have been constructed for carrying on operations at very high temperatures, and there is a low voltage dynamo and storage battery for electrolytic work. Leaching operations on a small scale are conducted in stoppered bottles which can be agitated by machinery.

A powerful hydraulic press and a piece of apparatus for compressing gases by hydraulic power are available for experiments that

have to be conducted under great pressure.

A small drop-testing machine has been constructed for investigat-

ing the mechanical properties of metals.

The Assaying Laboratory is equipped with a soft coal assay furnace, and with a number of muffle and crucible furnaces fired with coke; the large gas muffle furnace in the furn ce room is also available for assaying purposes, and there is a small muffle furnace and a crucible furnace fired by gasoline.

Adjoining the assaying laboratory is the balance room and a small

laboratory for chemical work.

In another room are a number of electrical pyrometers of both the Le Chatelier and Callendar type, and a micro-photographic outfit for recording the microscopic structure of metals and alloys. A polishing machine, worked by power has been installed to prepare the specimens for examination.

The courses of instruction in these laboratories are described on

pages 233 to 236.

#### MINING AND ORE-DRESSING LABORATORIES.

The Department of Mining Engineering has one large laboratory for ore-dressing and a number of rooms of moderate size equipped for use as special laboratories, offices, lecture room, dark room, machine shop, etc. The effective floor space is about 6,600 square feet, in addition to which the departmental store rooms, ore bins, etc., have an area of 1,000 feet.

The ore-dressing laboratory proper has about 4,200 feet of floor

space and is 25 feet high in the centre.

It is equipped with two classes of apparatus. First, a large number of pieces especially designed for individual work on a small Many of these are for elementary investigations and demonstrations of a theoretical nature, others are small scale reproductions of typical ore-dressing and milling machines. Second, a complete plant of standard apparatus for ore crushing, sampling, milling, concentrating and for coal washing. The apparatus has been chosen from the best designs in common use and each important class of ore-dressing machinery is represented by two or more different types in order that comparative tests may be made. Each machine is so arranged that it may be used, tested and cleaned up independently, but when expedient, a number of machines can be connected by automatic conveyors and thus complete working plants of many kinds can be improvised, each of sufficient capacity to test large lots of material under approximately working conditions.

The chief pieces of apparatus in the laboratory are rock-breakers of four kinds—Blake, Dodge, Gates, and Sturtevant, for coarse crushing; Stamp mills of 600 and 950 lbs., respectively, and a small steam stamp for the fine crushing and amalgamating of gold ores; Huntington centrifugal roller mill, for crushing and amalgamating; high speed steel rolls for fine crushing; Sturtevant and Gate's grinders for preparing samples, and a number of ball mills, pebble mills and

amalgamation pans for extremely fine grinding.

Following these there is a Bridgman, Vezin and Jones automatic samplers, and a series of trommels and hand and power shaking screens for sizing the crushed ores; two especially designed jigs of two and four compartments, with adjustable eccentric, cam and slide mechanisms, a pneumatic jig, and several small hand and power jigs for coarse concentration; revolving, bumping and stationary tables; a stationary glass table; Frue vanner, Wilfley table. Bartlett table, Bartlett canvas table, etc., for separating valuable minerals contained in the fine sands and slimes; plates, pans and barrels for amalgamating gold and silver ores; vats and other apparatus for cyaniding, chlorinating and other leaching processes; spitzkasten, spitzlutte, magnetic separators, an electro static separator, coal washers, dolly tubs, and various other special pieces of ore dressing apparatus.

An hydraulic lift and a complete series of belt and bucket elevators, feeders, samplers, etc., are provided for use in neavy continuous work. The power chiefly used 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, but steam is used for some pieces of apparatus and others may be driven by a pelton wheel. The department is equipped with the most approved apparatus for electrical measurements, and is thus able to make frequent and accurate determinations of the amount of power

used by each machine.

In addition to the main laboratory there are excellent facilities for advanced and research work—including a thoroughly equipped analytic and assay laboratory and a photograph room. The department possesses an excellent Fuess petrographical microscope, a good set of weighing and measuring devices and a number of pieces of special apparatus for advanced theoretical investigation.

The courses of instruction in these laboratories are described on

pages 238 to 240.

#### PETROGRAPHICAL LABORATORY.

The Petrographical Laboratory, containing the chief rock collections of the University, is situated in the Chemistry and Mining building, and is arranged for the use of students in the Mining Course as well as for those desirous of taking advanced work, such as Post Graduate students and those taking Honour Courses in Arts. It is provided with a number of petrographical microscopes by Seibert, Crouch, and Feuss, as well as with models, sets of thin sections, electromagnets, heavy solutions, etc., for petrographical work.

A collection of typical rocks has been especially prepared for the use of students and a complete equipment for cutting, grinding, and polishing rocks, has been installed, which runs by electric power and gives excellent facilities for the preparation of thin sections for microscopic use.

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

### THE MACDONALD PHYSICAL LABORATORIES.

The equipment of the Macdonald Physical Laboratories 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 basement contains the cellars, furnaces and janitor's apartments 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 motor-dynamo—is situated at the extreme western corner of the basement and so as to be as far removed as possible from the 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, and a Liquid Air Plant, consisting of a Whitehead Torpedo Air-compressor, capable of giving 250 atmospheres, driven by an 11-Horse Power Electric Motor, and a Hampson Liquefier with a capacity of 1 litre per hour. 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. The laboratory on the opposite side of the basement contains a Lorenz apparatus for the absolute measurement of resistance, constructed under the supervision of Prof. Viriamu Jones.

There is a Constant Temperature Room, surrounded by double walls, which contains a Standard Rieffler Clock, and is fitted for comparator work.

The ground floor 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 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 Rôentgen 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 projections 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, light, electricity and magnetism. There is a Demonstrators' 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, especially 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.

#### LABORATORY OF PHYSIOLOGY.

The department of Physiology occupies a large portion of the top floor of the Laboratory Wing of the Medical Building. The space alloted to this department is divided up into a large students' laboratory, 45 by 58 feet, and smaller rooms—professor's office and library and preparation and research rooms. The main laboratory is furnished with enough benches, apparatus, etc., to allow of 80 students working at one time. The research rooms are supplied with the more complicated apparatus necessary for extended research work.

#### STRENGTH OF MATERIALS LABORATORIES.

These laboratories are equipped with apparatus for the determination of the physical properties of the materials of construction and for illustrating the fundamental laws of the strength of materials. The equipment includes:—

(a) A Riehlè testing machine of 60,000 lbs capacity, a Wicksteed 100-ton and an Emery 50-ton machine for testing the tensile, compressive and transverse strength of the several materials of construction. To the Wicksteed has been added a specially designed arrangement, by which the transverse strength of girders and beams up to 26 ft. in length can be determined. Special holders have also been designed and made in the laboratory for investigating the tensile and shearing strength of timber, and for the testing of wire ropes, belts, etc.

(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) A 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, an impossibility when any form of pump is substituted for an Accumulator. An automatic electric motor has been designed in the laboratory and constructed for the purpose of actuating the 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 necessary 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) Extensometers of the Bovey, Ewing, Unwin, Martens, Marshall and other types.

(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) 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,

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) Apparatus for the microscopic study of metals and for micro-

scopic photography.

(r) Micrometers of all kinds.

(s) A transverse bending machine which is adapted for loads up to 3,000 lbs and for beams of 10 ft. span and a testing machine for applying bending and torsion simultaneously.

(t) Small beam testing machines used to illustrate the laws of the bending of beams, both when the ends are free and when they are

fixed.

(u) Two small tension machines, in which experiments are made on metals, the strains being within the elastic limit.

(v) Apparatus with experiments for long wires, adapted for experiments on wires 60 ft. in length.

(w) A lever machine for experiments on alternate twisting.

(x) A testing machine for breaking tests on wires.

(y) A powerful hydraulic press for compression tests on metals, cements, stone and similar materials.
(2) Moments of Inertia apparatus.

#### THERMODYNAMIC LABORATORIES.

The steam Laboratory is furnished with an experimental steam engine of 120 I.H.P., specially designed for investigating the behaviour of steam under various conditions; the cylinders are 61/2 inches, 9 inches, 13 inches and 18 inches in diameter, and the stroke of all the pistons is 15 inches. The cylinders can be so connected as to allow of working as a simple, compound, triple, or quadruple expansion engine, either condensing or non-condensing, and with any desired rate of expansion. The jackets are so fitted as to permit of measuring independently the water condensed in the cover, barrel, or bottom jacket of each cylinder, and the engine can be worked with any desired initial pressure up to 200 lbs. per square inch. The measurements of heat are made by means of large tanks, which receive the cooling water and

the condensed steam. There is an independent surface condenser and air pump. Two hydraulic absorption brakes and an alternative friction brake serve to measure the mechanical power developed.

This Laboratory also contains the following machinery:-

A Robb automatic cut-off engine, having a cylinder 101/2 inches in diameter by 12 inches stroke. This engine is specially fitted up for the measurement of cylinder temperatures, and can be run at speeds up

to 300 revolutions per minute.

An automatic high speed engine by Macintosh & Seymour, having a cylinder 12 inches diameter by 121/2 inches stroke. In connection with this engine there is an automatic recording apparatus for regis-

tering the load on the brake.

A Leonard horizontal engine, having a cylinder 8 inches diameter by 9 inches stroke, specially fitted for instructional work in valve setting and provided with an independent surface condenser.

A "Dake" steam engine of 4 H.P.

A two stage air compressor taking 40 H.P., and having cylinders 10 inches and 17 inches in diameter, by 15 inches stroke. The compressor delivers its air into reservoirs placed beneath the floor of the machine shop, and is provided with an intercooler whose capacity can be varied as desired.

A high speed horizontal engine having a cylinder 6 inches diameter by 9 inches stroke, and operated by compressed air.

A gas-fired preheater for the above engine.

A standard 91/2 inch Westinghouse air brake pump, fitted for testing and for supplying compressed air for experimental and other purposes.

A non-rotative Blake steam pump, having steam and water cylinders, 41/2 and 23/4 inches diameter and 41/2 inches stroke.

The Gas Engine Laboratory is equipped with:-

A horizontal gas engine by the National Gas Engine Company, having a cylinder 12 inches diameter by 20 inches stroke, and developing 40 B.H.P.

A suction-type producer for the above, with the necessary scrub-

bers and gas cleaning apparatus.

A down draft producer designed for working with lignite and bituminous coal.

A standard 4 inch gas meter, gasometer, and exhauster.

An Atkinson "Cycle" gas engine of 6 B.H.P., working on city

An Otto type gas engine (built in the workshops of the Department), having a cylinder 81/2 inches diameter by 12 inches stroke, and giving 10 B.H.P., with city gas.

A two cylinder 4 cycle gasoline engine (built in the workshops of

the department), and giving 8 B.H.P.

The smaller apparatus belonging to the laboratories includes the necessary equipment of weighing machines, brakes, calorimeters, thermometers, gauges, pyrometers, fuel testers, indicators, planimeters, and a Moscrop recorder.

The boiler installation of the Engineering Building supplies steam for heating and power purposes, and is so arranged as to be available for experimental work in connection with the Thermodynamic Laboratory. It comprises boilers of five distinct types as follows:-

One Cornish boiler, for heating service, rated at 50 H.P.

One locomotive boiler, Belpaire type, 100 H.P. One internally fired tubular boiler, 120 H.P.

Two Babcock-Wilcox water-tube boilers, each 60 H.P. One Yarrow water-tube boiler, fitted in a closed stokehold, for working under forced draft, rated at 150 H.P.

These boilers are provided with the necessary tanks, weighingmachines and apparatus for carrying out evaporative tests.

#### ZOOLOGICAL LABORATORIES.

The Zoological Department occupies the whole of the uppermost floor of the east wing of McGill College and the larger portion of the floor immediately below.

It consists of:-

(a) A large laboratory affording accommodation for a class of 100 students.

(b) A smaller laboratory capable of seating about 18 students.

(c) Three smaller laboratories fitted up for purposes of research. Dissecting trays, simple and compound microscopes, reasonable quantities of the ordinary reagents and of glass are provided by the department, but students provide themselves with razors for cutting

The Department is provided with four large tanks and a number of smaller ones in order to maintain a supply of fresh specimens throughout the winter.

The subjects for practical work, are, as tar as possible, selected

from species inhabiting the vicinity of Montreal.

The laboratories are well provided with thermostats, microtomes, apparatus for microphotographic work and other instruments required for advanced research. There is also a library attached to the department.

### MUSEUMS.

#### ANATOMICAL MUSEUM.

DIRECTOR:—PROFESSOR F. J. SHEPHERD.

The late disastrous fire completely destroyed the Museum of Anatomy, but steps are being taken to replace the teaching material, and by the opening of the session of 1908-9 the department will be well supplied. Many specimens have been received from the Army and Navy Museum of Washington, D.C., and from graduates. Several institutions also have promised help.

A series of frozen sections have been made, mounted and placed

on exhibition.

#### MUSEUM OF HYGIENE.

DIRECTOR: - PROF. T. A. STARKEY.

The Museum has been established from the interest accruing through the endowment of the Chair of Hygiene by Lord Strathcona and Mount Royal in 1893.

With a view to exhibiting not only specimens of the best and most approved types of appliances in each particular branch of Public Health, but also examples of types which are to be avoided on Hygienic Principles, the material in the Museum has been re-arranged. der to facilitate study and reference, the specimens have been classified upon a decimal system under the following sections:-

I. Disinfection.—Including disinfecting apparatus, disinfectants,

and antiseptics.

2. Lighting and Heating.—This section includes types of all

known methods of heating and ventilation.

3. Water.—Showing underground water and supplies drawn from it; methods of purification on large and small scales, including domestic filtration; exhibits of all the common modes of pollution of water

4. Buildings.—Effects of ground moisture on dwellings; building materials of all kinds; and measures to be taken against dampness and

foul air.

5. Soil.-Various kinds of soils; relation between soil and dampness; permeability of soils to gas and water; composition of soils.

6. Air.-Including ventilation, climate and meteorology, with ap-

paratus illustrative of each class.

7. Drainage and Refuse Disposal.—This section includes every description of sanitary appliance used in building, drainage, and ultimate disposal of refuse, both liquid and solid. The section also includes types of faulty methods.

8. Foodstuffs.-Adulterations and modes of transmission of di-

sease and Clothing. - Materials and their value for clothing.

9. Vital Statistics.—Administration, etc.

10. Bacteriology and Pathology relating to Public Health.-Including specimens and slides of all the common micro-organisms, pathogenic and non pathogenic; specimens of pathological conditions met with in meats, etc.

In addition to the regular Museum Exhibit there is a collection of over 1,000 lantern slides illustrative of phases of Hygiene. slides have been so arranged as to be available for demonstrations as hand specimens. These slides as well as all the specimens in the Museum are card catalogued, and a projecting lantern is available for

their demonstration.

The following are some of the principal exhibits: - Set of Knight's diagrams and models; working models illustrating house-drainage, closets, etc., sewer air, movements of soil air; Doulton's models of drainage; damp-proof construction, absorption of moisture in building materials; ventilation appliances; combined heating and ventilation; automatic regulation of heating and ventilation; building materials; fire proofing, estimation of carbonic acid and moisture in the air; meteorological apparatus; water supply, water piping; water filtrations of public and domestic supplies; pollution of water supplies; ground water level; sewage and refuse disposal; sanitary fitting and plumbing; food supply; food adulteration; examination of milk supplies; disinfection; disinfectants.

A complete descriptive catalogue containing a large amount of condensed information with reference to the exhibits, has been published,

and may be obtained at the office of the Medical Registrar.

#### PATHOLOGICAL MUSEUM.

PROF. J. G. ADAMI, DIRECTOR.

MAUDE E. ABBOTT, B.A., M.D., CURATOR.
E. L. JUDAH, PREPARATOR AND OSTEOLOGIST.

Since the organization of the Medical Faculty the Pathological Museum has been one of its most cherished objects. Some specimens still remain upon its shelves donated by the founders of the College (notably a unique case of Cor. Biatrinen Triloculare, reported by Dr. Andrew Holmes in 1823), and for the last fifty years the rich pathological material furnished by the Montreal General Hospital has been collected here. Many specimens are also now yearly received from the Royal Victoria Hospital, and the Faculty is also indebted to many medical men throughout Canada and the United States for important contributions.

The recent fire did severe damage to the Museum and its contents, but, fortunately, through the efforts of the Curator and Staff and the active assistance of a large body of students, much that is of greatly value was saved.

The singularly rich collection of disturbances of the heart and vascular system, including Dr. Osler's series of cases of acute endocarditis, is almost intact, as are also the collection of diseases of the respiratory, urinary, nervous and male genital systems, and of the spleen and ductless glands.

To restore the loss thus sustained generous gifts have already been received from several sources, of which first and foremost must be mentioned a collection of more than 200 specimens illustrating the different forms of injury and repair of the main bones by gun-shot wounds, all admirably mounted, from the Surgeon-General of the United States and the Army Medical Museum at Washington, also other comparative, osteological and morbid anatomical specimens from the same source—an equal amount and of almost equal value. The Museum is also indebted to Prof. J. Orth of Berlin, for some valuable duplicates of specimens from the great Virchow Museum in Berlin, as again to various museums connected with the great London hospitals, among which St. Bartholomew's deserves particular mention. With these and other gifts promised the Museum, this department should rapidly be restored, not merely for teaching purposes, but to its position as the most important pathological museum on this Continent.

#### THE PETER REDPATH MUSEUM.

The large and valuable collections in Botany, Zoology, Mineralogy and Geology are 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.

#### 3. WORKSHOPS.

The Workshops, erected on the Thomas Workman Endowment, have a total floor area of more than 20,000 square feet.

Equipment.—The Carpenter Shop and the Pattern Shop contain thirty-eight carpenters' and pattern-makers' benches complete with the necessary sets of hand tools, twenty-two wood-turning lathes with their turning tools, a large pattern-makers' lathe for faceplate work, one circular saw bench, a jig saw, a band saw, two wood trimmers, a surface planer, a thickness planer, a mortising machine, a saw-sharpener, and one universal wood-working machine.

The Smith Shop is provided with sixteen Sturtevant forges which are power-driven and are connected with an exhaust fan. There is a power hammer, and the necessary equipment of anvils, swage blocks, sets, flatteners and other tools. Provision is made for instruction in soldering and brazing.

The Foundry has benches, tools and apparatus for bench and floor moulding and core-making, and is able to accommodate twenty students. A gas-fired brass melting furnace, a cupola for melting iron, and the necessary core-ovens and core-benches give facilties for undertaking iron foundry work in green and dry sand, and for brass moulding. The shop is served by a hand travelling crane of one ton capacity.

The Machine Shop has twelve 18-inch engine lathes, one 18-in turret lathe fitted for stud and screw making, one 27-inch engine lathe, one 72-inch surfacing lathe, one brass-finishing lathe, one 36-inch vertical drilling machine with compound table, one universal milling machine with vertical milling attachment and dividing headstock, one planer capable of taking work up to 24" x 24" x 5 ft., one 9-inch slotting machine, one 16-inch shaper, one universal grinding machine, centering machine, a cutter grinder, a tool grinder and a buffing and emery grinding machine. There are vise benches for eighteen students, with the necessary hand-tools, and a marking-off table. The tool-room contains a full equipment of drills, reamers, milling cutters, and accessories, gauges, callipers, and other measuring instruments.

All the machinery in the workshops is driven electrically by motors taking power from the generating station in the Macdonald Building.

# THE GRADUATE SCHOOL.

Graduate instruction was for many years offered in the various departments of McGill University without definite organization. The increased demand for such work led the Corporation in 1906 to formally organize and extend the higher teaching work of the University. A Graduate School was, therefore, established, and in it are enrolled all the graduate students in the University who are following advanced courses of study in subjects which in the undergraduate work fall within the scope of the Faculties of Arts and of Applied Science.

The Faculty of the Graduate School consists of the professors of the Faculties of Arts and of Applied Science, but the initiative and administration of the School is placed in the hands of a Committee selected from these Faculties and known as the Committee on Graduate Studies. The Chairman of this Committee is the official head of the Graduate School. The advanced courses of study offered in the Graduate School lead to the degrees of Master of Arts, Master of Science, and Doctor of Philosophy.

Instruction for students of the Graduate School is provided in the following departments of study which at present rank as "Subjects":—

Philosophy, including Psychology.
History.
Economics and Political Science.
Greek Language and Literature (including Grecian History).
Latin Language and Literature (including Roman History).
Frenc Language and Literature.
German Language and Literature.
English Language and Literature.
Semitic Studies.

Archæology. Comparative Philology. Mathematics. Physics. Chemistry. Botany. Zoology.

Geology and Mineralogy.
Thermo-dynamics and Theory of
Heat Engines.

Theory of Elasticity, Strength of Materials and Theory of Structures.

Hydro dynamics and Hydraulics. Applied Electricity.

Theory of Machines and Machine Design.

Metallurgy. Mining. The requirements for the several higher degrees in course are as follows:—

# Degree of Master of Arts.

I. Candidates must hold the Degree of B.A. or B.Sc. (in Arts) from McGill University, or its equivalent.

2. Candidates must have taken

(a) One year of resident graduate study at McGill University; or

(b) Two or more years of private work; the amount of such work required may be stated to be the equivalent of one year of academic study.

3. One, two or three subjects may be taken.

4. One of these subjects shall be designated as the Major Subject and special attention shall be devoted to it. It must be a subject which the student has already studied in his undergraduate course, and the work required in it will represent an attainment in knowledge far in advance of that required for the B.A. Degree. The Minor Subject, or Subjects, may be selected from those of the undergraduate course of the Third or Fourth Year, which have not already been taken by the candidate. Not more than one-third of the candidate's time for the year shall be devoteed to these subjects. The student shall pass an examination in each of the subjects of his course.

5. The student shall also present a thesis on some topic connected with his Major Subject. The title of his thesis must have been previously submitted to the Committee on Graduate Studies and the Head of the Department concerned, for their approval. The thesis shall show evidence of distinct ability in dealing with the subject selected, and shall also display good literary style.

6. Graduates possessing a Bachelor's Degree, who act as Demonstrators or Tutors in the University for the entire session may proceed to the Degree of M.A., and, in so doing, may at the discretion of the Department with which they are

connected, and the Committee on Graduate Studies, omit a portion of the course of study. They shall, however, be called upon to pass an examination on the course of study which they have followed, and shall in all cases submit the thesis prescribed for that Degree. If, however, they desire this year's work to count as one of the three years of study required for the Ph.D. Degree, they must make their course of study conform to the Ph.D. requirements.

N.B.—The first year's course of study for the Ph.D. Degree will cover the requirements of the M.A. course, but, if such a course of study be followed, a thesis must be submitted and approved before the Degree of M.A. is conferred. If, however, the student continues his course of study and takes the Degree of Ph.D., the Degree of M.A. will be conferred with the Degree of Ph.D., in which case no special thesis will be required for the former.

# Degree of Master of Science.

1. Candidates must hold the Degree of B.A. or B.Sc. from McGill University, or its equivalent.

2. Candidates must have taken

(a) One year of resident graduate study at McGill University; or

(b) Two or more years of private work; the amount of such work required may be stated to be the equivalent of one year of academic study.

3. The course of study followed by the candidate shall be of an advanced character, being the equivalent of that required for the degree of M.A., and shall lie in the domain of pure or applied science. It shall be selected from *one* of the last thirteen subjects in the list given above. Geodesy and Ore Dressing also constitute subjects in the case of this Degree. This course of study must have been previously submitted to the Head of the Department and to the Committee on Graduate Studies and have received their approval.

4. The candidate shall also present a thesis on some subject connected with his course of study. The title of this

thesis must have been previously submitted to the Head of the Department and to the Committee on Graduate Studies and have received their approval. This thesis shall show evidence of distinct ability in dealing with the subject selected and shall also display good literary style. It may deal with some very special topic, but the course of study followed by the student must cover a much wider field.

5. Graduates possessing a Bachelor's Degree, who act as Demonstrators or Tutors in the University for at least one entire session, may proceed to the Degree of M.Sc., and, in so doing, may, at the discretion of the Committee on Graduate Studies, omit a portion of the course of study usually required. They shall, however, be called upon to pass an examination on the course of study which they have followed, and shall in all cases submit the thesis prescribed for the Degree.

# Degree of Doctor of Philosophy.

- 1. The candidate for the Degree of Dcctor of Philosophy must hold the Degree of B.A. or B.Sc. from McGill University, or its equivalent.
- 2. He must have followed a course of at least three years' resident graduate study.
- 3. He must select one Major Subject and one Minor Subject. The Minor Subject selected must be related to his chief line of work. This Minor Subject shall have devoted to it about one-quarter of the instruction given during the entire course.
- 4. The candidate must satisfy the Committee that he has a reading knowledge of both French and German before he will be permitted to enter upon the course of the second year.
- 5. The examination on the Major Subject shall cover not merely the formal courses of instruction which have been taken, but the candidate must show that he possesses a good general knowledge of the whole science or branch of learning which he has selected as his Major Subject. A similar general, though less detailed, knowledge shall be required in the case of the Minor Subject.

6. The candidate shall also prepare a thesis which must display original scholarship or show marked ability to conduct research. If the thesis be accepted, two hundred printed copies of it must be deposited with the University Librarian before the candidate shall receive his diploma.

The University has decided to exact a very high standard in the case of this Degree and, at least three years of study are therefore demanded.

To meet immediate needs, the University has decided to offer at once the complete three years' course leading to the Degree of Doctor of Philosophy in the following subjects taken as Majors:—

Philosoph y
Physics.
Chemistry,
Zoology.
Theory of Elasticity, Strength of Materials and Theory of Structures.
Hydro-dynamics and Hydraulics.
Semitic Studies.

Students desiring to proceed to the Degree of Doctor of Philosophy in subjects other than those mentioned above may communicate with the Chairman of the Committee on Graduate Studies (Dr. Adams) at the Chemistry and Mining Building, to whom also application should be made by all students desiring to follow courses of study in the Graduate School.

All theses for 1908-9 must be in the hands of the chairman of the Committee on Graduate Studies on or before April 1st, 1909. No thesis received after this date will be accepted.

# ROYAL VICTORIA COLLEGE.

The institution of the Royal Victoria College, in September, 1899, was a direct continuation of the work begun in 1883, during the Principalship of the late Sir William Dawson, when Lord Strathcona and Mount Royal placed a sum at the disposal of the University of McGill, for the endowment of a College and classes for women. For many years previously it had been hoped by those interested in the education of women in Montreal that the University would extend its benefits to women, but the means necessary for carrying out such an aim had not been available. The classes were organized in 1884 as a special course in the Faculty of Arts, held at McGill College, separate in the main from those for men, but under identical conditions. In some of the work of the Third and Fourth Years, and in the Honour Courses, the classes were held jointly.

The ultimate aim of Lord Strathcona had been the foundation of a place of residence, and, with this object, he announced his intention of building and endowing the Royal Victoria College. By the opening of this Institution the opportunity of residence and college life is given to womenstudents of McGill University, working in accordance with the system previously organized in the special course in Arts, but under greatly improved conditions. A share in the advantages of college life is offered also to the non-resident womenstudents of the University, who are henceforth also students of the Royal Victoria College. Additional elements have been added in the organization of a Musical Department, now superseded by the McGill Conservatorium of Music, and in the institution of Resident Women Tutars. These additions are in accordance with the general aim of the College; viz., the higher education of women, and mainly to qualify them to

take Degrees in Arts (including Pure Science), and to provide them with instruction in those branches of a liberal education necessary thereto and in such other subjects as may from time to time be determined.

The College being a constituent College of McGill University, its students, whether graduate students, undergraduates, conditioned students, or partial students, fo'low the courses in Arts and Pure Science offered by the University (see pages 93 to 104).

Lectures are given by the Professors and Lecturers of the University, either in the College or in the University buildings, and students attend the University laboratories for practical instruction. In addition to the instruction given in lectures and laboratory practice, the students of the Royal Victoria College are assisted in their studies by the Resident Tutors.

#### THE COLLEGE BUILDING.

The College is situated on Sherbrooke Street at the head of Union Avenue, in close proximity to the University buildings and to the slopes of Mount Royal. The building is fire-proof, and much thought and artistic care have been given to the furnishing and decoration.

On the ground floor are the offices of the Administration, including the rooms of the Warden and Secretary, the Professors' common room, lecture rooms, students' common room and a spacious dining hall. On the first floor are other lecture rooms, the library, reading-room, a handsome assembly hall, and a few rooms for resident students. The second and third floors are devoted to the rooms of the resident students and tutors. These are of varying size and plan. Each student has a separate study bedroom. The entire use of a sitting-room can be obtained, and arrangements may be made for a sitting-room to be shared by the occupants of the two or three bedrooms immediately adjoining. The rooms are completely furnished, and no article of furniture need be brought by the students.

In addition to the lawn at the back of the College, the students are entitled to use, subject to regulations, the grounds of McGill University, with its tennis-courts, skating-rink, etc.

A nucleus of a College Library has been formed with a set of books, comprising the chief stated books and others referred to in connection with the University curricula, the modern language course being especially well represented. There are also works of general literature. The Library is a reading-room, and the books are not taken away. The students have access also to the University Lending Library.

Students of Music have the use of pianos in a large practising-room, and, at certain hours, in other parts of the building.

A large Gymnasium is provided, fully equipped in accordance with modern requirements. In connection with the Gymnasium there are bath-rooms and dressing-rooms.

The health of the resident students is under the charge of a competent physician practising in Montreal, who may be consulted free of charge. Every student applying for admission to Residence is required to forward a medical certificate on a form provided by the College.

Students of the Royal Victoria College, as students of Mc-Gill University, are entitled to the use of the University Library, containing about 115,000 volumes, and the Peter Redpath Museum, containing large collections in Mineralogy, Palæontology, Zoology, Botany, Archæology, and Ethnology, and to work in the physical, chemical, zoological, botanical and other laboratories. (For particulars of laboratories, etc., see pp. 318 to 331.)

## BOARD AND RESIDENCE.

Residence in the College buildings is open to graduate students, undergraduates, conditioned students, or partial students, but the last are not received in residence unless they take courses of study approved by the Faculty of the College. The charge for board and residence, in addition to the sessional fees for tuition (see pp. 65 to 67), is \$290. An addi-

tional charge, varying from \$25 to \$60. is made for the use of a private sitting-room shared by two students, or for the sole use of a private sitting-room. These charges cover the University Session, 16th September—30th April, and the summer classes, May 1st—15th June, and other periods, if necessary, for examinations. A deduction of \$50 is made in the case of students who go out of residence at the end of the University Session.

Applications for admission or further particulars should be addressed to the Warden, Royal Victoria College, Montreal.

## PHYSICAL TRAINING.

The Gymnasium is in charge of a fully qualified Physical Teacher. The system of gymnastics taught includes the various forms of gymnastics considered beneficial, the work being based on anatomical and physiological laws. The exercises aim at producing the highest degree of health in each individual and thus to contribute to mental as well as physical efficiency. To this end all undue exertion is avoided, and the work is made as recreational as possible. The exercises are also of a corrective character to counteract bad and harmful positions so often assumed during study hours. Especial attention is given to the development of the chest, since a good lung capacity is the foundation of a really healthy constitution. All students are examined by the Medical Director before taking part in the classes or other physical exercise organized by the College, and a remedial gymnastic course is arranged for students who are physically unfit for the ordinary class work, and for students with spinal curvature.

The Gymnasium is also used for Fencing and Basket Ball, and for other indoor games. Lawn Tennis can be played on the College lawn during the summer months.

Undergraduate students of the First Year are required to attend the Gymnasium for two periods a week; Undergraduate students of the Second Year for one period a week.

#### EXHIBITIONS AND SCHOLARSHIPS,

For a statement of the Exhibitions and Scholarships open to women students of the University, see pp. 43 to 54.

In addition to these, and further to encourage residence within the College walls of students who might otherwise arrange to board in the city, the Warden and Staff are empowered to make nominations in any of the four College years to not more than three additional Exhibitions of the value of \$100 each.

#### MUSIC.

Instruction in Music is offered at the McGill Conservatorium of Music,—under the Superintendence of the Director and Miss Clara Lichtenstein as Vice-Director. The subjects of instruction carried on in the Conservatorium are:-Pianoforte, Singing, Organ, Violin, Violoncello, and all Orchestral Instruments; Harmony, Counterpoint, Canon and Fugue, Composition, Form, Analysis, History of Music, Theory, Elements of Music, Orchestral Class, Ensemble Playing, Piano-Accompaniment, Part Singing, Choir Singing, Sight Singing, Operatic Class, English, French, German, Italian, Elocution, together with instruction in accordance with the scheme of the Associated Board of the Royal Academy of Music and the Royal College of Music, whose examinationsnow conducted in Canada conjointly with McGill University --enjoy a well-deserved reputation for thoroughness and efficiency.

For Time Table of lectures in Arts, see first part of Calendar.

# MACDONALD COLLEGE.

#### GENERAL STATEMENT.

Macdonald College, which is incorporated with McGill University, was founded, erected, equipped and endowed by Sir William C. Macdonald for the following among other purposes:—

I. For the advancement of education: for the carrying on of research work and investigation and the dissemination of knowledge; all with particular regard to the interests and needs of the population in rural districts.

2. To provide suitable and effective training for teachers, and especially for those whose work will directly affect the

education in schools in rural districts.

Recognizing the importance of adequate education, adapted to the needs of the rural communities which are the great producing classes of the country, this College will labor in sympathy with all other educational effort which makes for the development and increase of intelligence, of power, ability, and skill, and of willingness to co-operate for the common good in each locality as well as in the nation at large. Therein lies the reason for arranging the work of the College into a School for Teachers, a School of Agriculture, and a School of Household Science. Increase of productiveness, with improvement of products in the field and in the industries of the farm and the town, greater comfort and enjoyment in the home, a better taught school for the children, and a nobler sense of the duties and responsibilities of life—these are some of the advantages which Macdonald College hopes to assist in providing for Canada.

The College occupies a beautiful site, overlooking the Ottawa River at Ste. Anne de Bellevue, twenty miles west of

Montreal. The main lines of the Grand Trunk and the Canadian Pacific railways pass through the property, and the stations of both railways are within its boundaries.

The College property comprises 561 acres, and has been arranged into three main areas, viz., (1) The Campus, with plots for illustration and research in grains, grasses and flowers, containing 74 acres; (2) The Small Cultures Farm of 100 acres, for horticulture and poultry keeping; and (3) The Live Stock and Grain Farm extending to 387 acres.

# THE GENERAL ORGANISATION.

The College is divided into three schools, and a student is enrolled in that one in which the major portion of his work is taken:

(1) The School for Teachers, where will be offered a comprehensive and thoroughly practical training in the art and science of teaching.

(2) The School of Agriculture, which aims to provide a thorough theoretical and practical training in the several branches of Agriculture.

(3) The School of Household Science, in which young women receive training which will make for the improvement and greater enjoyment of home life.

## THE GOVERNMENT.

Macdonald College is an incorporated College of McGill University.

Under the statutes the Governors of McGill University have constituted the Principal of Macdonald College, together with such other members of the staff of Macdonald College and such other persons as the Governors may see fit to appoint from their own number or otherwise, as the Macdonald College Committee. It is the function of this Committee to direct the educational policy and draw up a suitable curriculum, and to make and enforce regulations concerning the courses of study and teaching, the College examinations, the

admission of students, the amount and mode of payment of fees, and the discipline and internal government—the whole subject to report to the Governors and at least once a year to Corporation.

All courses given in Macdonald College leading to a degree in the University, the examinations held in connection therewith, and fees payable in respect of such courses and examinations, are subject to the approval and under the control of the Corporation of McGill University.

Courses for the training of teachers for the Protestant Schools of the Province of Quebec, together with the examinations held in connection therewith, are under the direction of the Teachers' Training Committee, constituted as set forth under the "School for Teachers," on page 361, such training and examinations being subject at all times to the regulations of the Protestant Committee of the Council of Public Instruction.

#### OFFICERS OF INSTRUCTION.

JAMES W. ROBERTSON, LL.D., C.M.G., Principal.

GEORGE H. LOCKE, M.A., Dean of the School for Teachers, and Professor of the History and Principles of Education.

MISS HELEN A. BAINBRIDGE, Ed.B., Dean of the School of Household Science and Assistant Professor of Household Science.

F. C. Harrison, B.S.A., D.Sc., Professor of Bacteriology.

WILLIAM LOCHHEAD, B.A., M.Sc., Professor of Biology. CARLETON J. LYNDE, Ph.D., Professor of Physics.

LEONARD S. KLINCK, M.S.A., Professor of Cereal Husbandry. H. S. Arkell, M.A., B.S.A., Professor of Animal Husbandry.

ABNER W. KNEELAND, M.A., B.C.L., Professor of English in the School for Teachers.

JOHN BRITTAIN, D.Sc., Professor of Nature Study.

W. SAXBY BLAIR, Assistant Professor of Horticulture.

J. F. Snell, Ph.D., Assistant Professor of Chemistry.

JOHN FIXTER, Farm Superir tendent and Instructor in Farm Machinery.

FRED. C. Elford, Manager and Instructor in Poultry Department.

J. M. Swaine, M.S.A., Lecturer in Entomology and Zoology. Miss Jean Dawson, M.A., Ph.D., Instructor in Physiology and Hygiene.

J. VAN DER LECK, T.E., Assistant in Bacteriology.

H. DASEN, Assistant in Bacteriology.

GEORGE E. EMBERLEY, Instructor in Manual Training.

MME. SOPHIE CORNU, Professor of French in the School for Teachers.

MISS LILIAN B. ROBINS, B.A., Instructor in Mathematics and in Classics in the School for Teachers.

Miss Mary I. Peebles, Head Mistress in Practice School.

H. F. Armstrong, Associate Professor of Drawing in the School for Teachers.

V. R. GARDNER, M.S.A., Instructor in Horticulture.

MR. HAMMOND, Instructor in Chemistry.

H. BARTON, B.S.A., Assistant in Animal Husbandry.

Douglas Weir, B.S.A., Assistant in Biology.

Douglas MacFarlane, Assistant in the Department of Nature Study.

M.SS ABBIE DELURY, Instructor in Household Science.

MISS CATHERINE T. McCAIG, Instructor in Household Science.

Miss Emma H. Bigelow, Instructor in Laundry and Household Practice.

MISS MARGARET KENNEDY, Instructor in Sewing and Dressmaking.

MISS JANET McNaughton, Instructor in Home Dairying.

Miss Marjorie Torrance, Assistant Instructor in Physical Culture and Hygiene.

# In the Residences.

Mrs. Jennie Muldrew, House-mother and Superintendent of Women's Residence.

MISS J. M. KENNEDY, B.A., Housekeeper and Dietician. Mrs. J. F. O'Hara, Matron in Men's Residence.

## ENTRANCE REQUIREMENTS.

School for Teachers.

Teachers to be trained for the schools under the control of the Protestant Committee of the Council of Public Instruction for the Province of Quebec will be admitted under conditions prescribed by that body, particulars concerning which are given in detail in the announcement of Macdonald College.

Other teachers, and others who wish to become teachers elsewhere, will be admitted for courses under regulations of the Macdonald College Committee.

Such candidates for admission,—

- 1. Must be 18 years of age;
- 2. Must be recommended by the Department of Education or a School Inspector of the Province in which they reside;
- 3. Must produce satisfactory evidence as to moral character and physical health.

Schools of Agriculture and Household Science.

All candidates for admission,—

- 1. Must have entered upon their eighteenth year;
- 2. Must produce satisfactory evidence as to moral character and physical health; and
- 3. In the case of candidates for the course of Agriculture, must produce evidence of having worked for a season on a farm in Canada, afferding a practical knowledge of ordinary farm operations.

All candidates for the One and Two-Year Courses will be required to read and write the English language acceptably, to be proficient in the use of elementary mathematics, and to be acquainted with history and geography, especially of Canada.

#### LIVING EXPENSES.

The charges for board and lodging are as follows:-

Per w	veek.
For each occupant of a single room \$3	.50
For each occupant of a double room with	
singe beds 3	.25

No allowance is made on board for absence of less than two weeks for any cause other than personal illness.

The Bursar will be in the office at stated times to receive payment of the above charges. They must be paid strictly in advance, and may be for the whole term, or for four weeks at a time.

Payments for board and washing must be made from time to time throughout each term, at the beginning of each period of four weeks, strictly in advance.

Any one who wishes to do so, may pay in advance for a longer period than four weeks.

Caution Money—Every student must also, at the time of entrance, make a cash deposit of \$5,00 with the Bursar of the College. to cover fines, breakages, etc.; and as soon as any student's deposit is exhausted he will be required forthwith to make an additional deposit of the same amount.

# Payment at Entrance—

4 weeks board in advance	\$13.00
Caution money deposit	5.00
Laboratory fee	5.00
	\$23.00

#### FEES.

Information regarding fees for tuition in the College is furnished in the Announcement of Macdonald College.

## THE COLLEGE YEAR—(1908-1909.)

# School for Teachers.

First term begins	September 3rd,	1908
and ends	December 23rd,	1908
Second term begins	January 5th,	1909
and ends	June 22nd,	1909

# School of Agriculture.

First term begins October 1st,	1908
and ends December 23rd,	1908
	1909
and ends April 29th,	1909

# School of Household Science.

First term begins September 10th	1, 1908
and ends December 23rd	, 1908
Second term begins January 5th,	1909
and ends April 1st,	1909
Third term begins April 4th,	1909
and ends June 22nd,	1909

## THE BUILDINGS ON THE CAMPUS.

The buildings on the Campus are of fire-proof construction. The walls are of brick and cement; the beams and rafters are of steel, and the partition walls of the rooms are of terra cotta. The roofs, as well as the floors, are of reinforced concrete, and are covered with tiles. The red tiles of the roof harmonize well with the flash brick of the exterior walls. The arrangement of the buildings allows of spacious courts between them, in front, sides, and rear, so that every room has abundance of light.

ventilation, whereby fresh air (warmed in winter) is fur-Every building is provided with a complete system of ventilation, whereby fresh air (warmed in winter) is furnished to every room, including the bedrooms of the dormitories. A duct from each room removes the inside air, and thus insures a continuous circulation of pure air from outside.

The buildings are heated with steam, lighted by electricity, and supplied with water from the College power house. A system of tunnels provides for the distribution of heat, light, power, water, and gas. The power house contains six horizontal tubular boilers of 150 h.p. each, with engines, electric generators, pumps, and a gas plant. The water supply is taken from the Ottawa River, and will be filtered.

## THE MAIN BUILDINGS.

The grouping of the buildings of the College makes this the centre, as around it stand the residences for men and for women, and the laboratories for the sciences. It contains in a northerly annex, leading off the main hall on the ground floor, the Reading Room and Library, which are admirably adapted for study; above these is the Assembly Hall, where every day the students will gather at the noon hour. The Reading Room has accommodation for 150 readers, and in a series of alcoves there are "working lists" of books covering the current class work in each department. The Library has stack-room accommodation for about 13,000 volumes, and the choice of books has been directed towards bringing together the best of modern literature upon the subjects of the curriculum of the College.

The Assembly Hall has seating capacity for about 650 persons, and the installation of the large pipe organ will make the room well adapted for concerts and musical recitals. It will be used also for the lectures which will be given at intervals during the year by men and women prominent in various aspects of social life and endeavour.

In this building are housed the School for Teachers and the School of Household Science, as well as the administration offices. The class rooms are large and well equipped, and the laboratories for Nature Study, Manual Training, and Household Science have been designed with an eye to the future as well as the present needs of the College. For instance, in Household Science there are two large kitchens, each with working places for 28 students, for practice work in cookery; a dining room where experience is obtained in serving simple meals and special menus, and in the decoration of the table; a large sewing-room for practice in hand and machine sewing; dress-making and millinery rooms; a laundry for practical work in best methods of washing, cleaning, and ironing; house decoration room for the study of the principles and methods of the decoration of the home.

#### THE BIOLOGY-BACTERIOLOGY BUILDING.

This building lies to the northeast of the main building, and is connected with it by a covered corridor. It is 172 feet long, and from 72 to 86 feet wide, and two stories high. It has a high basement and a good attic, where good rooms will be available when required. As in the Chemistry-Physics building special attention has been given to heating and ventilation. Thermostats are installed in several of the rooms, and special flues have been constructed for the forced removal of impure gases. Steam, hot water, cold water, and gas are supplied to such laboratories as require them.

The Department of Biology occupies half of the building. On the first floor are the Physiological Laboratory, 48 feet by 28 feet and the Histological Laboratory, 42 feet by 28 feet. On the second floor are the Elementary Laboratory, 50 feet by 28; the Elementary Entomological Laboratory, 33 feet by 26 feet; the Advanced Entomological Laboratory, 28 feet by 28 feet; the office for the lecturer; two Research rooms; a store room; a large Lecture Room; a museum, and rooms for photography.

In the basement is a room for the preparation of insecticides and fungicides in the investigation of plant diseases. A greenhouse and insectary attached to the building furnish facilities for the study of the activities of growing plants, Plant Physiology, and the life histories of insects.

The Department of Bacteriology occupies about one-half of the building. The rooms have high ceilings, and are well ventilated and lighted. The windows of the rooms in which microscopes are used are furnished with a lower sash of ground glass, in order to give even illumination for microscopic work. The floors of most rooms are of maple, but those in which much water is used are of coloured cement. All laboratories are supplied with high and low pressure steam, hot, cold, and distilled water, gas and vacuum. All the steam radiators in the laboratories are automatically regulated to any required temperature.

Among the principal rooms are the following: In the basement, a suite of photographic rooms, equipped with a large Zeiss photomicrographic outfit and arranged for electric light as illuminant: several dark rooms for students' use, furnished with the necessary water and sink accommodation; a mechanical apparatus room in which high power centifuges, shaking apparatus and other mechanical appliances, which can be geared to an electric motor, are installed. A series of cool rooms for fermentation work are also provided for in the basement.

On the first floor there are an office and private laboratory for the Professor of Bacteriology and a large elementary laboratory seating fifty students. Each student has five square feet of table-top, and three drawers and a cupboard for storing the materials and apparatus—gas and water are in front of each seat. The table-tops are covered with cork carpet ebonized. A large preparation room, with a number of sinks, opens directly off this laboratory. An autopsy room, adjoining the animal house, is furnished with enamelled lava tables and the necessary sterilizing apparatus, and gives ample facilities for animal operation and autopsies.

The Dairy and Soil laboratories, each about 30 feet square, are well equipped for instruction and research along the lines mentioned. For example, a large autoclave in the soil room permits the sterilization of large amounts of soil,

and the dairy room has a small churn and other dairy apparatus for investigation of dairy problems. A series of four small rooms, well insulated with hollow tile and cork, and thermostatically controlled, give temperatures ranging from freezing to blood heat.

On the second floor there is a laboratory for 20 advanced students. The room is well equipped; each student has a large amount of working space, with ample storage. The table-tops are of enamelled lava. Opening from this room is a kitchen for the preparation of media. This room is also available for four private research laboratories, each of which is fitted up for experimental work. A suite of three rooms for photographic use, including a studio with overhead lighting, a large room for museum purposes, and the lecture room in amphitheatre style, seating 180, are used in common with the Department of Biology.

## THE CHEMISTRY-PHYSICS BUILDING.

This is a two-storey structure, 172 feet long, and from 72 to 86 feet wide, lying to the northwest of the main building, and connected with it by a covered corridor. The basement is well lighted and ventilated, and is sub-divided into large rooms which may be used for laboratories as required. Special care has been given to the construction of flues for the removal of noxious fumes, and the admission of pure air. The laboratories are well equipped with fume cupboards, and supplied with distilled water, cold water, hot water, steam, and gas.

The fume cupboards have lead floors and a system of ventilation distinct from the general system of the building. Acid-proof tables of enamelled lava are provided for burette work. The balance tables, also of enamelled lava, are attached to the walls of the building, to ensure steadiness.

A large amphitheatre lecture room on the second floor is used by the two Departments in common. This has seats for 175 students, and can readily be darkened for the purposes of optical experiments and lantern projections.

Adjoining the lecture room are rooms for the preparation of lecture experiments and the storage of lecture apparatus.

The Department of Chemistry occupies about half the building. In the basement are rooms for ether extractions in the determination of fat, and for Kjeldahl digestions and distillations in the determination of nitrogen in foods, fertilizers, etc., a store room for acids, a dark-room for work with the polariscope, such as the determination of sugar, and a suite of rooms for photography.

On the main floor are the Professor's office and private laboratory, supply-rooms for apparatus and chemicals, and laboratories for Elementary, Advanced, and Dairy Chemistry. The Elementary Laboratory is a spacious room of forty feet square, with desk accommodation for seventy-five and hood accommodation for forty students.

The Dairy Laboratory in which instruction will be given in the chemistry of milk, butter, and cheese, has desk space sufficient for twenty-four workers. The Advanced Laboratory will accommodate about the same number when necessary.

On the second floor, in addition to the lecture room and preparation rooms, there are a smaller class-room, laboratories for Organic Chemistry and Food Chemistry, and the office of the Assistant Professor. The Organic Laboratory for practice in the preparation and analysis of carbon compounds, will accommodate a class of about twenty-four; and the Foods Laboratory, a 42 by 28 foot room, will allow ample space for a somewhat greater number for practice in the examination of foods, for the determination of nutritive value and for the detection of preservatives and adulterants.

The Department of Physics occupies about half of the building. On the first floor are a Soil Laboratory, 48 feet by 28 feet; a Mechanics and Apparatus room, 42 fet by 28 feet; an office for the Professor and his private Laboratory; while on the second floor are an Elementary Laboratory, 60 feet by 28 feet; an Advanced Laboratory, 40 feet by 26

feet; an office for Assistant; two Research rooms, and the large Lecture Room.

## THE AGRICULTURE-HORTICULTURE BUILDING.

This building occupies a prominent position to the northeast of the Biology and Main buildings. It looks towards the west, and has a frontage of 194 feet. The north wing is given over to Home Dairying, the south wing to Horticulture, and the central portion to Agriculture, Live Stock, Gereal Husbandry, and Farm Machinery.

In connection with the Department of Live Stock there is a large, octagonal judging pavilion, 92 feet by 44 feet, provided with raised seats to accommodate 200 students, and a central ring into which a large number of animals may be brought for comparison and judging. In it practical instruction is given on the characteristics of the different breeds of horses, cattle, sheep, and swine; on their feeding and management; on the principles of breeding; on judging; and on the keeping of herd-books.

The Department of Cereal Husbandry occupies the east end of the second floor, and has an office, two seed store rooms, a class-room, and a large room, 92 by 44 feet, as a combined exhibit room and laboratory for the study of

grains.

In connection with the Cereal Husbandry experiments are carried on in field plots with the various commercial cereals, grasses, corn, forage crops, potatoes, etc., to determine the importance of selection of seed in the production of increased yields, to secure new and desirable strains and varieties by selection and hybridization, and to show by illustration the best methods of cultivation and rotation of crops, the best varieties, and the effect of the various grades of fertilizers on different soils and crops.

The Department of Horticulture occupies the southwest wing of the building to the right of the main entrance. In the high basement are a work-room, 38 feet by 26 feet, a preparation room, 30 feet by 26 feet, and a store room. On

the first floor are three offices, a record room, a vegetable and fruit exhibits room, 38 feet by 26 feet, and a Horticultural work-room, 30 feet by 26 feet. The class rooms are on the second floor. There is also a refrigerator for fruit products on the first floor.

This Department is well equipped with class-rooms, work-rooms, and greenhouses for lecture and laboratory instruction in the study of fruits, flowers, and vegetables, in the propagation of plants by grafting, budding, and fertilization, in seed testing, etc. Under its control are the vegetable gardens, the small-fruit plantations, and the or hards, where students can become familiar with the best methods of growing fruits and vegetables. Opportunities will be given for the study of the best methods of spraying, of packing, and of handling fruits and vegetables for the market by means of practical demonstration.

The Department of Home Dairying occupies the north-west wing of the building to the left of the main entrance. It contains an office, a milk-testing room, 30 feet by 23 feet; a cheese room, 40 feet by 30 feet; a butter room, 40 feet by 30 feet; and a cream room, 18 feet by 20 feet. The walls of these rooms are lined with glazed bricks, and the floors are a cement. There are also two refrigerator rooms for dairy products on the same floor, and of easy access. The class-rooms are on the second floor.

This Department is equipped with all the most modern appliances for teaching butter and cheese-making on the farm, such as pasteurizers, cream separators, barrel churns, butter workers, etc. Instruction will be given also in the use of the lactometer and Babcock tester, and in the handling of pure milk and cream for the market.

The Department of Farm Machinery occupies the ground floor at the east end. Its purpose is to give instruction in the management and care of the farm machinery. Practical exercises are giving in taking apart and putting together the parts of reapers, mowers, manure spreaders, plows, etc.,

and in repairing and replacing broken or missing parts. In this building there are a blacksmith's shop, with forges, anvils, etc., and a carpenter's shop, with all necessary tools and appliances.

## THE POULTRY BUILDING.

The Poultry building lies to the north of the Agriculture-Horticulture building. The main portion, 70 feet by 40 feet, is two-storied, and has a roomy basement. The western annex furnishes the brooder house, and the eastern annex, a series of pens for the chief breeds of fowl.

This branch is thoroughly equipped and organized for giving practical instruction in the management of poultry. The main building contains a large lecture room, a classroom, incubator rooms, a feeding room, a judging room, and other work-rooms, besides offices, wash-rooms, and layatories.

In the poultry yards close by are a large number of colony houses, each containing from 25 to 50 birds, to serve as illustrations of the profitable management of the main commercial breeds.

## THE WOMEN'S RESIDENCE.

This building has bedroom accommodation for over 200 women. It contains also reception rooms, a music room, apartments for the House-Mother and the Dietician, the large College dining room, 100 feet by 60 feet; a gymnasium, 100 feet by 60 feet; a swimming pool, 60 feet by 27 feet; bath rooms and lavatories. It is connected with the main building by a covered corridor. At the north end are well-appointed kitchens, bakery, refrigerator rooms, serving-pantries, and servants' quarters.

## THE MEN'S RESIDENCE.

This corresponds in architecture and in plan of rooms to the Women's residence, and is on the opposite side of the Campus. It contains accommodation for over 150 men, also reception rooms, bath rooms, and lavatories, a gymnasium and a swimming pool.

#### THE MAIN FARM.

The Live Stock and Grain Farm, comprising about 387 acres, is in a good state of cultivation, well drained, and provided with well-built roads.

The farm buildings consist of a farm house, a number of cottages, barns, with commodious stables for horses and different breeds of cattle, and a piggery for different breeds of swine. The cattle stables have room for over 80 milch cows and 100 young animals.

The equipment for practical instruction in the different branches of agriculture is complete. The large dairy herd of pure-bred Ayrshires is one of the best in the country. Other breeds of cattle will be added during the summer of 1908. Ample opportunities are here given the student for gaining a practical acquaintance with all the ordinary operations of a farm—the feeding and care of stock, the cultivation of the land, the growing of crops, the handling of farm machinery, and the management of a farm.

# THE SMALL CULTURES FARM.

This farm consists of about 100 acres, devoted to productive work, demonstrations and investigations with large fruits, small fruits, vegetables and poultry. There are several acres of apple orchard in full bearing. An area of several acres is set apart for poultry runs, where 1000 hens will be kept in simple colony houses each accommodating from 25 to 50 fowls.

On this farm is a commodious brick barn for the storage of garden and orchard produce, the grain grown on the experimental plots, the implements of cultivation, the machinery for threshing and cleaning seed, and for the stabling of horses.

Macadam and other roads have been laid out, and built to give ready access to the various sections of the farm.

## THE SCHOOL FOR TEACHERS.

By an agreement with the Government of the Province of Quebec, confirmed by an Act of the Legislature, it was provided that a school for the training of teachers for the schools under the control of the Protestant Committee of the Council of Public Instruction should be established and carried on at Ste. Anne de Bellevue in lieu of the McGill Normal School in Montreal, under the regulations of the Protestant Committee and in the manner hereinafter mentioned.

The Trustees of Macdonald College undertook in the said agreement:—

"(1) To provide and maintain at their own expense on the said property at Ste. Anne de Bellevue, class-rooms, labor-atories, library, assembly hall, offices, and other rooms, fully equipped and in every way suitable for the purposes of a school for the training of teachers according to the present requirements of the Province;

"(2) To carry on therein at their own expense, a school for the training of teachers for the schools under the control of the Protestant Committee, the teaching and training to be given by said school to be in all respects equal to the present standard and requirements of the Province, and to be carried on in accordance with the regulations made from time to time by the Protestant Committee, such training to include efficient courses in the study of nature, in household science, and in manual training;

"(3) To provide and maintain, without expense to the "Prevince of Quebec, upon said property, a suitable residence "for the female pupils of said school and a suitable residence "for the male pupils thereof;

"(4) To give free tuition to such pupils as may give to "their satisfaction, an undertaking to teach in the Province of "Quebec, and to supply board and lodging to the resident "pupils as cheaply as can be done without loss."

"The teaching and training in the said school shall, subject to the regulations at all times of the Protestant Committee,

"be under the direction of a Committee, to be called the "Teachers' Training Committee, which shall consist of the "Principal of McGill University for the time being, who shall be ex officio Chairman; of two persons appointed by the Protestant Committee; of the English Secretary of the Council of Public Instruction; of the Professor of Education in McGill University for the time being; of the Principal, for the time being, of Macdonald College; of the Head, for the time being, of the Teachers' Training Department of Macdonald College; and of one person appointed by the "Corporation of McGill University; the persons appointed, "respectively, by the Corporation of McGill University and by the Protestant Committee to hold office for a term of three "years and to be eligible for re-election."

This institution is intended to give a thorough training to teachers, by instruction and training in the School for Teachers itself, and by practice in the Practice Schools; and the arrangements are of such a character as to afford the greatest possible facilities to students from all parts of the Province. The Protestant Central Board of Examiners for the Province of Quebec grants diplomas only to teachers-in-training of this School and to graduates of Canadian or other British universities who have received the necessary training.

# ANNOUNCEMENT FOR THE SESSION 1908-1909.

The second session of this School will begin on the third of September, 1908, and will close on the twenty-second of June, 1909. The students are graded as follows:

- 1.—Elementary Class.—Studying for the Elementary Diploma.
- 2.—Kindergarten Class.—Studying for the Kindergarten Diploma.
- 3.—Model School Class.—Studying for the Model School Diploma.

Detailed information respecting the course for each grade of Diploma will be found in the Announcement of Macdonald College, or may be obtained on application to the Dean of the School for Teachers, Macdonald College Post Office, Que.

## THE SCHOOL OF AGRICULTURE

Courses are offered in the School of Agriculture as follows:-

- A. Short courses of from two weeks to three months each.
- B. A Two-Year Course leading to a diploma.
- C. A Four-Year Course leading to a Bachelor's Degree

#### SHORT COURSES.

The Short Courses are made as practical as possible, and are provided in the subjects of:—

- I. Live Stock.
- 2. Soils, Seeds, Crops and Weeds.
- 3. Poultry.
- 4. Horticulture.
- 5. Home Dairying.

#### THE TWO-YEAR COURSE.

This Course embraces studies in:-

- 1. Field and Cereal Husbandry.
- 2. Animal Husbandry.
- 3. Poultry Husbandry.
- 4. Home Dairying.
- 5. Horticulture.
- 6. Nature Study.

The first year's work consists of courses on Live Stock, Field Crops and Soils, Nature Study, Horticulture, Home Dairying, and Poultry Keeping, along with continuous courses in English, Mathematics, Book-keeping, and Drawing.

The object is to use the valuable but rather indefinite information already possessed by the student regarding farm life and processes as a foundation upon which to build a solid super-structure of agricultural knowledge, enlarged and strengthened in all parts by the introduction of scientific principles. The student at the end of the first year should have grasped the underlying principles and processes of agriculture, and be able to give more attention in his second year to the study of the many facts of science upon which these principles are based.

The second year of this course includes work in the following subjects:

Live Stock.
Cereal Husbandry.
Horticulture.
Dairy Husbandry.
Poultry.
Farm Machinery.
Nature Study.
Chemistry.

Physics.
Biology.
Bacteriology.
English.
Mathematics.
Book-keeping.
Drawing.

#### THE FOUR-YEAR COURSE.

This is a continuation of the Two-Year Course for the purpose of affording opportunity for more advanced knowledge of rural economy, and more thorough and exact acquaintance with the Natural Sciences and their application to the conditions, processes, and organizations of rural life.

A student may proceed with the work of the Third Year towards a degree,—(a) if on entering his First Year he presents a matriculation certificate, or an equivalent, and completes a satisfactory examination on the work of the Two-Year Course; or (b) if he obtains 60 per cent. in general proficiency in the examination on the work of the Two-Year Course, and has been granted permission by the Faculty—the whole subject to the regulations of Corporation.

The subjects to be taken up in the Third and Fourth Years are as follows:

## Third Year-

English (Composition and Literature), French, Rural Economics, Agronomy, Live Stock, Dairying, Horticulture, Chemistry, Physics, Biology, Bacteriology.

## Fourth Year-

English, French, Physics, Chemistry, Biology, Bacteriology, and one of the following optional courses: Agriculture Course, Horticulture Course, Dairy Husbandry Course.

# Agriculture Option:

Majors-Animal Husbandry.

Cereal Husbandry.

Minors—Chemistry.

Physics.

Biology.

Bacteriology.

English.

French.

Rural Economics.

# Horticulture Option:

Majors-Horticulture.

Biology.

Minors-Physics.

Chemistry.

Bacteriology.

English.

French.

Rural Economics.

Dairy Husbandry Option:

Majors—Dairy Husbandry.
Bacteriology.

Minors—Chemistry.
Live Stock.
English.
French.
Rural Economics.

# THE SCHOOL OF HOUSEHOLD SCIENCE,

The School of Household Science occupies along with the School for Teachers all of the second and third floors of the Main Building. It contains two large kitchens, a practice dining room, a sewing room, a class laundry, millinery and dressmaking rooms, a house decoration room, a practice apartment house, several store rooms and offices, all thoroughly equipped for instruction in the science and art of house-keeping.

The various subjects studied by the classes in Household Science will be considered in a thoroughly practical way. In cooking, the students will learn the best ways of preparing the simplest dishes, as well as some of the more elaborate.

An effort will be made to give the student, even in the short courses, a working knowledge of the ordinary processes connected with household work, and to systematize methods of work.

Courses are offered in Household Science as follows:-

- A. Short Courses.
- B. A One-Year Home-maker Course.
- C. A Two-Year Course leading to a diploma.

#### SHORT COURSES.

The Short Courses last three months each, are made as practical as possible, and include the study of:—

- I. Foods.
- 2. Plain Cooking.
- 3. Sewing.
- 4. Laundry.
- 5. Home Nursing, Sanitation and Hygiene.
- 6. Home Art.
- 7. Care of the House.

#### THE ONE-YEAR COURSE.

The One-Year Home-maker Course embraces practical and theoretical work in:—

- I. Foods.
- 2. Cookery.
- 3. Household Economics.
- 4. Materials for Clothing.
- 5. Dressmaking and Millinery.
- 6. Laundry.
- 7. Fuels, Ventilation and House Sanitation.
- 8. Home Nursing and Hygiene.
- 9. Home Art.

Simultaneous studies are carried on in the Physics, Chemistry, Biology and Bacteriology laboratories to show the direct bearing of the sciences on the practical side of housekeeping.

## THE TWO-YEAR COURSE.

The Two-Year Course is an extension of the One-Year Course comprising a more intensive study of the subjects therein embraced, and also more advanced laboratory work in the subjects of Chemistry, Physics, Biology and Bacteriology. English, Mathematics and History are also obliga-

tory subjects in this course, and the student is allowed to choose two of the following:—Home Dairying, Poultry, Horticulture, Seeds and Plant Improvement, and Wood Carving.

## GENERAL INFORMATION.

#### APPRENTICE-STUDENTS.

In the spring of 1909 a number of apprentice-students will be received, who will assist in carrying on the work of the Small Cultures Farm and the Main Farm. These young men will have an opportunity of doing things under competent instruction. If diligent, earnest, and trustworthy they can earn enough on the College farms through the six months, to pay their board in the College for classroom work during the winter. They will receive free board and room during the period when the whole of their time may be claimed by the College for apprentice labor.

According to the work done, the student-apprentice may earn a first-class, second-class, or third-class credit. A first-class credit will entitle the student-apprentice to free board and room, as well as free tuition in the College during the following six months, subject to the condition that, during those six months, he would be expected to devote probably two hours a day to the continuation of his apprentice work in some of the departments, such as Horticulture, Poultry, Live Stock, and Farms, without further compensation. A second class credit will entitle him to free board, room, and tuition during the following three months, and a third class credit to nothing more than board, room and working instruction during the summer.

#### POST-OFFICE.

There is a college post office in the Main building. All students should have their mail addressed in care of Macdonald College Post Office, Que.

#### RAILWAYS.

Ste. Anne de Bellevue is on the main line of the Grand Trunk Railway and of the Canadian Pacific Railway. Students on arrival at either of these stations, should report at once at the College office in the main building. This is but a short walk from the railways. Arrangements will be made at this office for the transfer of baggage, so baggage checks should be surrendered only at the College office.

On the days preceding the opening days of the fall term, as well as on that day, a representative from the College will be at the stations to give information.

#### COLLEGE ANNOUNCEMENT.

Further details as to the courses, etc., will be found in the Announcement of Macdonald College, which will be sent on application to the Registrar, Macdonald College Post Office, Que.

# THE McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

## OFFICERS OF INSTRUCTION.

- G. E. Robinson, B.A. (Dal.). Acting Principal and Dean, Professor of Mathematics.
- J. K. HENRY, B.A. (Dal.), Professor of English.
- L. F. ROBERTSON, M.A. (McGill), Professor of Latin.
- A. E. BOAK, M.A. (Queen's), Lecturer in Greek.
- H. Chodat, M.A. (McGill), Professor of Modern Languages.
- H. K. DUTCHER, M.Sc. (McGill), Professor of Civil Engineering.
- J. G. DAVIDSON, B.A. (Toronto), Ph.D. (Calofornia), Professor of Physics.
- G. E. PIPER, A.R.C.Sc.; A.M.I., Mech. E., Professor of Mechanical Engineering and Lecturer in Mathematics.
- G. R. Kendall, B.Sc. (McGill), Lecturer in Biology and Chemistry.
  - , Professor of Chemistry and Mining (to be appointed in the summer of 1908).
    - L. F. ROBERTSON, M.A., Registrar.

#### HISTORICAL SKETCH.

Under an act passed by the Legislature of British Columbia in 1896 providing for the incorporation of High Schools as Colleges affiliated to recognized Universities, Vancouver High School became Vancouver College, and was admitted to affiliation for the First Year in Arts by the Corporation of McGill University. Work was begun under this new relationship in 1899, and by 1902 such progress had been made that an extension of affiliation was granted to cover the first two years in Arts.

The need of University connection more intimate still than that of affiliation and also an extension of the scope of work came to be felt and urged, and, in 1906, as the result of much careful inquiry and deliberation local legislation was passed,

(1) enacting that "The Governors, Principal, and Fellows of McGill University may exercise and enjoy in the Province of British Columbia all the powers, rights, privileges and functions conferred upon them by the Charter granted to them by His late Majesty King George IV, in the second year of his reign and amended by Her late Majesty, Queen Victoria in the sixteenth year of her reign," and (2) authorizing the incorporation of a body politic under the name of "The Royal Institution for the Advancement of Learning in British Columbia," and empowering this body "to establish, at such place in British Columbia as McGill University may designate, a College for the higher education of men and women, such college, in respect of courses of study and examinations, to be deemed a College of McGill University, and the instruction given to its students to be of the same standard as that given in like subjects at McGill University at Montreal." In pursuance of the objects of its foundation, therefore, the Royal Institution has established at Vancouver the McGill University College of British Columbia, by agreement with the Board of School Trustees, taking over the Arts work previously done by Vancouver College, with extension of the scope and options allowed, and adding the first two years of the course in the Faculty of Applied Science. The immediate aims of the Royal Institution include also courses in Biology and Chemistry (Arts and Medicine) and in Assaying and Metallurgy, and it hopes to make provision so that the incoming First Year in Arts shall receive its full course in the College and be admitted to the B.A. Degree, locally, in 1012.

### CONSTITUTION OF THE UNIVERSITY.

Under the Act of the Legislature of the Province of British Columbia, above referred to, the Royal Institution for the Advancement of Learning of British Columbia is constituted a body corporate with all the usual rights and privileges of corporate bodies. The members of the Royal Institution are the Governors of the College and, as such, control the finances, make statutes and by-laws, appoint professors and perform all other administrative duties. The President of the Royal

Institution is, ex officio, Chancellor of the College. The Principal is the academic head and chief administrative officer. He is appointed by the Board of Governors, of which body he is also a member, ex officio. A Senate has been constituted under the Statutes. In conjunction with the Faculty and the Corporation of McGill University, the Senate exercises authority over all matters relating to educational policy. The College is undenominational in character.

#### COURSES OF STUDY.

The College is at present offering instruction in the work of the Final Year for Matriculation; in the first two years of the Arts course of McGill University, including Biology and Chemistry, and in the First and Second Years of the Course in Applied Science. The standard of work is that of McGill University, all the examinations being conducted by the examining Board of that Institution. It is expected at a very early date to offer instruction in the full course leading to the B.A. degree. Until such can be done candidates passing the examinations at the end of the Second Year are admitted to the Third Year in McGill University without further examination. Those who complete the two years' course in the Faculty of Applied Science are also admitted to the Third year of that Faculty in McGill University. The courses in Biology and Chemistry are arranged so as to secure exemption in these subjects in the Faculty of Medicine at the University.

#### THE SESSION.

The University Year or Session is divided into two terms, the first extending to the Christmas vacation, and the second from the expiry of the Christmas vacation to the end of the Sessional examinations in April. The Session of 1908-9 will begin, on Monday, September 21st, 1908.

Full information regarding matriculation requirements, courses of study and all other matters in connection with the College may be obtained from the Principal, or from Mr. Lemuel Robertson, M.A., Registrar.

## GRADUATES.

SESSION 1907-1908.

### FACULTY OF ARTS.

#### PASSED FOR THE DEGREE OF B. A.

I. IN HONOURS.

(In Alphabetical Order.)

First Rank.—Brooks, Murray G.
Emerson, John
Feiczewicz, Louis.
Fineberg, Nathaniel S.
Gillis, Norman R.
Hawkins, Frank E.
Libby, Ruth E.
Logan, Henry T.
Shaw, Albert N.
Smith, Annie
Tyndale, Orville S.
Yates, Arthur

Second Rank.—Boyle, Gertrude M.
Chandler, Edward F.
McClughan, Ellen
Macnaughton, Ariel M.
Riley, Charles E.
Williams, Charles E.

2. IN THE ORDINARY COURSE.

(In order of merit.)

Class I.—Kingman, Abner Rice, Emery L. Maclean, Herbert B. Shanks, Walter R. L.

Class II.—Younger, Marjorie Smillie, E. Arma Sauvalle, Germaine H. Stockwell, Ralph F. Plaisted, Gertrude M. Greenshields, E. J. Moray McQueen, George R.
Hastings, William R.
Macdiarmid, Katie
Timberlake, Ralph M.
Dolbel, Amy A.
Bouchard, Theodora C.

Class III.—MacKeen, Anna M.
Creswell, Harris J.
Crutchfield, Charles N.
Isherwood, Percy
Ross, L. Isobel
Waterston. Edward
Penny, Arthur G.
Patrick, Frank A.
Ramsey, G. A. Stuart
Masson, Marian.

### PASSED FOR THE DEGREE OF B.Sc. (IN ARTS.)

Class I.—Auchinleck, Gilbert G. Class III.—Stewart, Robert C.

DOUBLE COURSE IN ARTS AND APPLIED SCIENCE.

Class III.—Rider, Ezra B.

DOUBLE COURSE IN ARTS AND MEDICINE.

Tannenbaum, David.

## FACULTY OF APPLIED SCIENCE.

## PASSED FOR THE DEGREE OF BACHELOR OF ARCHITECTURE.

(In order of merit.)

Mayers, Francis Laurie Spencer. Wood, Alexander Campbell. Ruttan, Francis Norlande

## PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE.

(In order of merit.)

CHEMISTRY.

Nicolls, Jasper H. H. Mohan, Richard T. Dawson, Victor Elliott MacKay, Robert Moffat Hayes, Albert Orion (*Unranked*.) McFee, M. C. Coll, B.A.,

#### CIVIL ENGINEERING.

Copp, Walter Percy Read, Herbert William Bates, Henry Eli Baird, John Boyd Kingston, Laurence B. Lighthall, Abram Pitts, Gordon McLeod Emmerson, Robert Henry Mather, William A. D'Aeth, John Bancroft Davis, Francis Mercer Forbes, John Hunter Holloway, Edward Stimson. Graham, John Robertson Christie, Harold Reginald Monro Melhuish, Paul Stitt, Ormond M. Scott, George E. Kerr, Archibald Ballantyne, Thomas Bell Bell, Valentine Hylton Morrow, Hugh Mervyn

(Unranked.)

Canfield, Frederick O. Finlayson, John Norison (aegrotat) Howe, John P. Macklem, Oliver T.

#### ELECTRICAL ENGINEERING.

Herbert, William Harry
Lea, William Schurman
Vipond, William Stanley
Kenyon, L. Amos
Parham, John Bright
Perry, Kenneth M.
Whyte, Herbert B.
Trimingham, James H.
Scott, William Gordon
Mulligan, William H.
Hodge, Charles Arthur
Spencer, Walter Hutchins
Pease, Edson Raymond
Raphael, Gordon Stewart
Eaton, E. Courtlandt.
Cattanach, Frederick Walter Colquhoun
Sheen, Herbert L.

Morrin, Arthur D. Dowell, Harry Lawrence Ross, Donald Richards, Edward Lorenzo Batchelder, Charles Kelsey

(Unranked.)

Chaplin, Charles J.

MECHANICAL ENGINEERING.

Guillet, George LeRoy Whitton, Corbett Francis Cameron, James Somerville Bristol, Charles Frederick Killam, George Callaghan, John C. Turnbull, Kenneth Davies, Harold Cameron Crocker, Stanley J. Murphy. William Hunt Moore, William John Winslow, Edward Spragge

(Unranked.)

Norton, Thomas J.

MINING ENGINEERING.

Dick, William Joseph
Carmichael, Henry Graham
Sproule, Gordon St. G.
Kemp, James Colin.
Montgomery, Edgar Gordon
Ells, Sidney C.
Ross, Cecil Middleton
Campbell, Edmund E.
Carruthers, Kenneth Burpee
Paré, Alphonse Arthur.
Harding, Winthrop K.

TRANSPORTATION.

Brooks, Charles Edward Irwin, Robert Hamilton Bentley, William Wallace. Martin, G. Ernest McGuire, Gordon Estey, J. Royden P. Pratt, Austin C.

# FACULTY OF LAW.

ADMITTED TO THE DEGREE OF BACMELOR OF CIVIL LAW.

(In order of Merit.)

Stewart, William, B.A. Stewart, Thomas, B.A.

Ballon, Isidore, B.A. Hyde, G. Gordon, B.A. Cameron, A. Wylie, B.A. Jenkins, Joseph, B.A. McMurty, Rennie O., B.A. Callaghan, Frank O. Pelletier, Alexis D., B.A.

THE NAMES OF THE GRADUATES IN MEDICINE WILL BE FOUND IN THE MEDICAL CALENDAR.

### GRADUATE SCHOOL.

## ADMITTED TO THE DEGREE OF MASTER OF ARTS.

Cousins, George Vipond, B.A. Jamieson, John Stewart, B.A. Parker, David Warren, B.A. Rorke, Mabele Lavinia, B.A. Salt, Alexander Edward Wrottesley, B.A. Smith. Ella Lauckner, B.A. Vincent, Irving Orrin, B.A.

## ADMITTED TO THE DEGREE OF MASTER OF SCIENCE.

Allan, John Andrew, B.A. Graham, Richard Percival Devereux, B.A. Harrington, John Lyle, B.A., B.Sc. McFee, Malcolm Charles Coll, B.A. McIntosh, Donald, Sutherland, B.A., B.Sc. Shearer, George Wyman, B.Sc. Strangways, Henry Fox, B.Sc.

## OTHER DEGREES.

# ADMITTED TO THE DEGREE OF DOCTOR OF SCIENCE.

Alexander Stewart Eve, M.A. Francis Charles Harrison, M.Sc.

## ADMITTED TO THE DEGREE OF DOCTOR OF LAWS.

Sir Caspar Purdon Clarke, Kt., C.V.O., Director of the Metropolitan Museum, New York City.

Henry Marshall Tory, D.Sc. LL.D., President of the University of Alberta.

E. A. Schafer, D.Sc. LL.D., Professor of Physiology in the University of Edinburgh.

# SCHOLARSHIPS AND EXHIBITIONS.

SESSION 1907-1908.

## FACULTY OF ARTS.

## I. Third Year Scholarships. (Tenable for two years).

Names of Scholars.	SUBJECTS OF EXAMINATION.	Annual Value.
Massé, Alice Estabrooks, Florence Hatcher, A. G Townsend, C. L McGougan, A. G Willis, Dorothy. Vipond, Florence Slattery, Annie	English and another Language Latin or Greek and another Language (English excepted) Mathematics and Physics. English and another Language Mathematics and Physics. English and another Language	\$150.00 150.00 150.00 100.00 100.00 75.00 (Tenable for 1 year)

## II. Second Year Exhibitions. (Tenable for one year).

Names of Exhibitioners	Subjects of Examination.	Annual Value.
Couture, R. P. Mabon, J. B. Smyth, C. P. McKinnon, Annie. Macnaughton, G. F. Seymour, Louise.	English, French and Physics Mathematics, Physics and Latin. Latin, Greek and English English, French and Latin. Mathematics, Physics and French Latin, French and Greek	\$150.00 150.00 150.00 100.00 100.00 100.00

## III. First Year Exhibitions. (Tenable for one year).

Names of Exhibitioners.	ANNUAL VALUE.
McGoun, A. Forster (Montreal High School), Montreal King, A. Nelson (Victoria College School), Victoria, B. C. Slack, A. Gertrude (Montreal High School), Montreal Lochhead, A. Grant (Montreal High School), St. Anne de Bellevue, Q. Dowd, Norman S. (Gault Institute, Valleyfield), Quyon, P. Q Smyth, E. Marjorie P. (Alexandra College, Dublin), Montreal †Bailey, Ethel A. (Lachute Academy), East Clifton, P. Q Robertson, Mildred H. (Westmount Academy), Westmount, P.Q Scott, Arthur A., (Montreal High School), Montreal Dewey, Alexander G. (Montreal High School), Montreal Walker, Miles G. (Lachute Academy), Lachute, P. Q Davies, Florence H. (Victoria College School), Victoria, B. C	\$300 00 300.00 150.00 150.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00

<sup>†</sup> Conditional on residence in the Royal Victoria College.

## FACULTY OF APPLIED SCIENCE.

### EXHIBITIONS AND PRIZES.

TO STUDENTS ENTERING THE FOURTH YEAR.

Herbert, W. H., British Association Exhibition, value \$50.00 Guillet, G. L., British Association Prize, value \$12.50 Vipond, W. S., British Association Prize, Value, \$12.50

TO STUDENTS ENTERING THE THIRD YEAR.

Powell, W. H., Mathematical Prize, value \$25.00 Dennis, W. M., Mathematical Prize, value \$12.50 Kennedy, W. A., Mathematical Prize, value \$12.50

TO STUDENTS ENTERING THE SECOND YEAR.

Harris, Norman C., Scott Exhibition, value \$50.00 Sproule, S. M., Scott Prize, value \$25.00 Cowles, E. P., Scott Prize, value \$15.00

## REGISTER OF STUDENTS.

SESSION 1907-1908.

### FACULTY OF ARTS.

FIRST YEAR.

(McGill College).

NAME.	Home Address.	WHERE LAST EDUCATED,
*Allen, Edgar F	Hull, Eng	Boulevard Science School.
Allnutt, Frank B	Montreal	
"Angus, Henry F	Victoria, B. C	. Victoria College.
"Argue, Alan F	Carp, Ont	Ottawa Collegiate Inst.
Armstrong, Thomas E	Shawville, P. Q	Shawville High School.
†Astrofsky, Samuel	Montreal	Montreal High School.
*Baxter, Quigg E	. Montreal	Loyola College.
Bissett, John E	. Winnipeg, Man	. Winnipeg Collegiate Inst.
Brock, Eustage A	Winnipeg, Man	. Manitoba College.
"Buchan, J. Stuart	Montreal	Montreal High School.
Calder, C. Douglas	Westmount	. Westmount Academy.
*Carr, Robert W	. Westminster, Eng.Ga	rrison School, London, Eng
Cherry, William M	Toledo, Ohio	Woodstock College, Ont.
*Christie, A. Stanley	Apple Hill, Ont. Ale	xandria High School, Ont.
Cook, Geoffrey H	.Quebec, P. Q	Quebec High School.
†Coote, James A	. Montreal,	Oakville High School, Ont.
Cox, William F	Prince Albert, Sask	. Wesleyan Theo. College.
Creaghan, T. Cyril	. Newcastle, N.B	Prince of Wales College.
Crockett, Vernon	.Charlottetown, P.E.I	Prince of Wales College.
*Crowe, Jordan	. Hall's Glen, Ont. Alb	pert College, Belleville, Ont.
Cunningham, Stanley H	. Montreal	Montreal High School.
Currie, George S	Perth, Ont.	Perth Collegiate Inst.
Davidson, Roy. A	.St. John, N.B	St. John High School.
*Davidson, Wray L	Princeton, Ont	m: QUQL D
Daw, P. Ford	Hamilton, Ont	.Trin, Coll. Sch., Port Hope
Dewey, Alexander G	. Montreal	Montreal High School.
Dixon, Shirley G	. Westmount	Montreal High School.
Donald, James R	. Montreal	. Montreal High School.
		Gault Inst., Valleyfield.
Duggan, Herrick S	, Sydney, C.B	St. Albans Sch. Brockville.
*Durie, William A	Ottawa, Ont	Ashbury Coll., Ottawa.
*(a) David A Davida	Damehana N.C. Da	Feller Inst., Grand Ligne.
		ston Coll. of Phys and Surg.
*Elliott, Samuel H	Molhouma Ont	Clangae High Sahaal
Fletcher, Gilbert H *(2)Goudie, Robert	Montreel Montreel	. Glencoe High School.
(2)Goudie, Robert	. Montreal	

<sup>\*</sup> Partial Student. † Conditioned Student. || Double Course Student The figures (2), (3) or (4), 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.

NAME.	Home Address.	ZIOT EDUCATED.
		Montreal High School. Bishop Field College. Montreal High School.
Traduingo, J. Oglivie	. WODITES!	St Andrews' - O-II T
Herschorn, Hyman E.	. Montreal	St. Albans Sch., Brockville
LIUUEKIIISON, JOHN	Preston Hng	Diagram TI G 11
		Montreal High School. Private Tuition
irving, w. Gordon	Vernon River Bridge,	Prince of Wales College
†Jacobs, Joseph H	. Caughnawaga P O	Haller Ingt Crand Time
King, A. Nelson	Victoria B C	Montreal High School.
Lariviere, Henri A	Bethany P ()	Point our Twomble Q1
Lochhead, Allan G.	St. Anne de Bellevue	Montreal High School.
Logan, William H	Wontreal	Prizzoto Trition
macuonaia, Duncan (1.	Wontreal	Diocesan Theo. College. Upper Canada College.
McGoun, A. Forster McGoun, G. Graham	Westmount	Montreel High Col - 1
menaten, Ene A	. Fortage dil Fort P ()	
*McMaster, Harold G	. Montreal	Woodstock Grammar Sch.
richten, valles A	. Tatemirst P ()	Albert Coll Belleville
Maass, Otto*Matthews, James C	Fingal (Int	Dutton High School
Morris I Frederick	Lethbridge, Alta	Upper Canada College.
moins, modert	. Dirkenhead Eng	Diocesan Theo College
Mewcombe, Edmund F.	Ottawa Ont	Aghbury College Otte
O FIVIIII, Edillillillillillillillillillillillillill	. Belleville (Int	Albort College Dell'll
Oughtred, S. Norris	Montreal	Albert College, Belleville.
*Quigley, William	Wontreal	Hollon Ingt Chand Time
rociu, Arthur W	Ottawa Ont	Private Tuition
Roberts, Lawrence H *Robinson, Mahlon I	Ottawa Hact (Int	Ottomo Collegist T- 1
Teoss, J. Guldon,	London Unt	London Collogista Inst
Ryan, John R	Montreal Vancouver, B.C	King's College School.
Deout, Arthur A	Montreal	Montreal High School
*Sleep, Albert G* *Smith, Harold F	Montreal	righton School
*St. Louis, George H Tannenbaum, Laurence	Montreal	St. Mary's Collogo
- Starting	monuteal	dontieal High School.

<sup>\*</sup> Partial Student. † Conditioned Student. || Double Course Student. The figures (2), (3) or (4), 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.

HOME ADDRESS.

WHERE LAST EDUCATED

Walker, Miles G	Lachute, P. Q	. Lachute Academy.
Wanklyn Andrew A	Montreal	St. Albans Sch. Brockville
Warburton, Hugh	. Charlottetown, P.E.I	Prince of Wales College.
*(2) Williams, Alfred G.	. Buckingham, P. Q.	. Ashbury College, Ottawa.
*Wills, Harry C	Montreal	. Westmount Academy.
initis, starty on the		
	Royal Victoria Colleg	re)
*Armour Helen M	Westmount	Glen Mawr. Sch., Toronto.
*Armstrong, Muriel B	Westmount	Westmount Academy.
Bailey, Ethel A	Fast Clifton PO	Lachute Academy
*Ballon, Annie E	Montroel	Montreal High School
*Bernstein, Minnie	Montroel	Montreal High School
†Brown, A. Gladys	Montreal	Montreal High School
Drown, A. Gladys	Manatanal	. Montilear ringh behoof.
Brown, Marion M	Montreal	Ottown Collegiate Inst
Campbell, Lillian M.	Ottawa, Ont	Ottawa Collegiate Inst.
*Caswell, Edna M	. Derby Line, Vt	. Stanstead College.
Craig, Evelyn	Montreal	Montreal High School.
Crowell, Agnes, J	Dunkin, P. Q	Sutton Academy.
Davies, F. Thelma	Victoria, B. C	. Victoria College.
Ellison, Ellen F	Vernon, B. C	. Havergal College, Toronto
Ellison, Myra K	Vernon, B.C	. Havergal College, Toronto
*Fitz-Gibbon, Isabelle R	Montreal	King's Hall, Compton.
Greer, Jemima L	Chateauguay Basin,	P.Q. Montreal High School.
Grimes, Evie M	Montreal	McGill Normal School.
*Hadrill, Beatrice M	Montreal	. Montreal High School.
Hammond, Doris J. S.	Montreal	Montreal High School.
*Harrington, Lois S	Montreal	. Trafalgar Institute.
Havden, Mabel G	Westmount	. Westmount Academy.
†Henry, Marguerite H	Calgary, Alta	. Calgary High School.
Hill, A. Kathryn	. Montreal . Lansingb	ourg Academy, Troy, N.Y
Hulburd, Ethel E	East Farnham, P.Q.	Stanstead College.
*(2) Johnston, Mary R.	St. George, N.B	Acadia Seminary, N.S.
*Lauterman, Dinah	. Montreal	. Montreal High School.
*Loud Hilda C	Montreal	Trafalgar Institute.
MacAdam, Hazel C	Westmount	. Westmount Academy.
*McCrudden, Vera E	Montreal	Montreal High School.
Macdonald, Susan V	Montreal	Montreal High School.  Montreal High School.
MacEwen, Violet M	Montreal	. Private Tuition.
*McLaurin Clarissa E.	Montreal	. Montreal High School.
MacQueen Emma H	New Glasgow, N.S.	. New Glasgow High School.
*McQueen, Fanny, A	Montreal	. Vancouver College.
*Mathewson Winifred	Montreal	. Montreal High School.
+Maxwell M Olivia	Moore's Mills N B I	Provincial Normal Sch., N.B.
Murchisen Hazel I	Montreal	. Montreal High School.
Olmstead, Helen F	Sutton P Q	Sutton Academy.
*Quirk, Cecile	Montreal	St. Louis Convent.
Reid Florence C	Westmount	. Montreal High School.
Total, I forcife Con	· · · · · · · · · · · · · · · · · · ·	The state of the s

<sup>\*</sup> Partial Student. † Conditioned Student. || Double Course Student. The figures (2), (3) or (4), 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.

NAME.	HOME ADDRESS	WHERE LAST EDUCATED.
D:1 1 0	HOME ADDRESS.	WHERE LAST EDUCATED.
Reinhardt, Grace A	Montreal	Montreal High School.
Robertson, Mildred H.	Westmount	Westmount Academy.
*Robinson Mary A C	Maryarrilla N.D.	Estimount Academy.
Schofboitlin Anna		Fredericton High School.
ochamerum, Anna	. Wontreal	Montroal High Calast
Deout, Luid M	Montreal	Montroel High Calant
Slack, Annie G	Montreal	Montreal High School.
Smyth M Paterson	Montroel	Alamai High School.
*Suthanland Manage T		. Alexandra College, Dublin.
Sufficially, Margaret 1	J. MOHETERE Chate	911 Brillant Mont To-
THOIHOH, HEICH F	Fortage la Prairie	Man Trafalgen Ingtitute
(2)(3)(4) Underniii. Em	IV K. Glen Head N	V Swanthmone De
Van Vliet Leonora M	Lacollo PO	. Huntingdon Academy.
*Vaughan Dorother H.D.	Variable, 1.Q	Huntingdon Academy.
Waughan, Dorothy, H.V	vest Dulwich, Eng. Co	ornwallis H.S., Hastings, Eng.
"adleigh, huby h	Ulverton P ()	Stanstand College
(3) Wharton, Jessie N	. Butte. Mont	Wallaglar Collago
*Williamson Nancy	Montroal	Montreal High School.
Wilson Winifred E	M	Montreal High School.
"HSULL, "HILLIEU E	. Montreal	Montroel High Cabasi
"Winslow, Naomi	. Montreal	Havergal College, Toronto
XA		8

### SECOND YEAR.

## (McGill College.)

37					
N	A	A	1	E	

#### HOME ADDRESS.

AND EDITION OF STREET
Ottawa, Ont.
Montrool
Ottowa Ont
Montrool
Montreal.
Belfast, Ireland.
Montreal.
Montreal.
Montreal.
Brantford Ont
Montreal
Montreal
Wagtmount
Ottown Ont
Ottawa, Ont.
White's Station, P.Q.
London, Ont.
London, Ont.
St. George, N.B.
Grantley, Ont.
Birmingham Eng
Retford Eng
Athens Ont
Westmount
Renfrew, Ont.
Montreal.
Millbrook, Ont.
Millbrook, Ont.
Ottawa, Ont.

<sup>\*</sup> Partial Student.

| Double Course Student.

The figures (2), (3) or (4), 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.

#### HOME ADDRESS.

Kolber, Joseph	Montreal.
*MaConn Welter E	Aviwin, P. Q.
*Mol voice Honold A	Daggan, One.
Macdonald, Alex B	Athelstan, P.Q.
Macdonald, Alex B Macdonald, Murdo	Stornoway, P.Q.
*MacFarlane I W	Freston vale, Ont.
McGannon Edward M	. Brockville, Unt.
*(2) Magkintosh William	Glasgow, Scottand.
*MacKay Henry J	. Brandon, Man.
*Mool gron Walter A	. Montreal.
tMcMahon Edward G	. Ottawa, Ont.
McMurtry Alexander ()	. Montreal.
MacNaughton Gordon F	. Montreal.
Mahon J Bertram	. Montreal.
Mariotti Humbert C G	. Montreal.
Meagher Norbert J	. Ottawa, Ont.
Powles Percival L. C	. Montreal.
Prontice Norman	. Montreal.
Rameay Irving D	. Waskada, Man.
*(2) Raymos Walter I.	. Fairville, N.B.
Radnath Ronald F	. Montreal.
recupatify restrict a	35 1
Reilly John C	. Montreal.
Reilly, John C	. Strathrov, Unt.
Robinson, Bernard S	. Strathroy, Ont
Robinson, Bernard S	. Strathroy, Ont
Robinson, Bernard S. Ross, S. Graham. Runnells, George W. Sargant Albert E	Dundas, Ont
Robinson, Bernard S. Ross, S. Graham. Runnells, George W. Sargant Albert E	Dundas, Ont
Robinson, Bernard S. Ross, S. Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews)	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount Montreal West.
Robinson, Bernard S. Ross, St. Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shellar, Charles W.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount Montreal West. Montreal.
Robinson, Bernard S. Ross, St. Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shellar, Charles W.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount Montreal West. Montreal.
Robinson, Bernard S. Ross, S. Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shelley, Charles W. *Sinclair, Arthur J. Smyth Charles P.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Kirkhill, Ont. Montreal.
Robinson, Bernard S. Ross, S. Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shelley, Charles W. *Sinclair, Arthur J. Smyth Charles P.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Kirkhill, Ont. Montreal.
Robinson, Bernard S. Ross, S. Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shelley, Charles W. *Sinclair, Arthur J. Smyth, Charles P.   Solomon, Edward. *Street Richard W.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Kirkhill, Ont. Montreal. Montreal. Komtreal. Komtreal.
Robinson, Bernard S. Ross, St. Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shelley, Charles W. *Sinclair, Arthur J. Smyth, Charles P.   Solomon, Edward. *Street, Richard W. Sutherland Francis C.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Kirkhill, Ont. Montreal. Montreal. Kemptville, Ont. Richmond, P.Q.
Robinson, Bernard S. Ross, St. Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shelley, Charles W. *Sinclair, Arthur J. Smyth, Charles P.   Solomon, Edward. *Street, Richard W. Sutherland Francis C.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Kirkhill, Ont. Montreal. Montreal. Kemptville, Ont. Richmond, P.Q.
Robinson, Bernard S. Ross, S', Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shelley, Charles W. *Sinclair, Arthur J. Smyth, Charles P.   Solomon, Edward. *Street, Richard W. Sutherland, Francis C.   Thompson, Allen E.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Kirkhill, Ont. Montreal. Kontreal. Kemptville, Ont. Richmond, P.Q. Coaticook, P.Q.
Robinson, Bernard S. Ross, S', Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shelley, Charles W. *Sinclair, Arthur J. Smyth, Charles P.   Solomon, Edward. *Street, Richard W. Sutherland, Francis C.   Thompson, Allen E *Thomson, William K.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Kirkhill, Ont. Montreal. Kontreal. Kemptville, Ont. Richmond, P.Q. Coaticook, P.Q. Coatbridge, Scotland.
Robinson, Bernard S. Ross, St. Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shelley, Charles W. *Sinclair, Arthur J. Smyth, Charles P.   Solomon, Edward. *Street, Richard W. Sutherland, Francis C.   Thompson, Allen E *Thomson, William K. Thorne, Oliver Tippet, Richard S.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Kirkhill, Ont. Montreal. Kemptville, Ont. Richmond, P.Q. Coaticook, P.Q. Coatortidge, Scotland. Westmount.
Robinson, Bernard S. Ross, S', Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shelley, Charles W. *Sinclair, Arthur J. Smyth, Charles P.   Solomon, Edward. *Street, Richard W. Sutherland, Francis C.   Thompson, Allen E *Thomson, William K. Thorne, Oliver. Tippet, Richard S. Trainor Owen P.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Kirkhill, Ont. Montreal. Kemptville, Ont. Richmond, P.Q. Coaticook, P.Q. Coatbridge, Scotland. Montreal. Westmount. Charlottetown, P. E. I.
Robinson, Bernard S. Ross, S', Graham. Runnells, George W. Sargent, Albert E.  *Scrimgeour, Charles E., M.A. (St. Andrews)  *Shaughnessy, Alfred T.  *Shelley, Charles W.  *Sinclair, Arthur J. Smyth, Charles P.    Solomon, Edward.  *Street, Richard W. Sutherland, Francis C.    Thompson, Allen E  *Thomson, William K. Thorne, Oliver. Tippet, Richard S. Trainor, Owen P.  *Whitehall Arthur S.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Montreal. Kirkhill, Ont. Montreal. Kemptville, Ont. Richmond, P.Q. Coaticook, P.Q. Coatbridge, Scotland. Montreal. Westmount. Charlottetown, P. E. I. London, Ont.
Robinson, Bernard S. Ross, S', Graham. Runnells, George W. Sargent, Albert E.  *Scrimgeour, Charles E., M.A. (St. Andrews)  *Shaughnessy, Alfred T.  *Shelley, Charles W.  *Sinclair, Arthur J. Smyth, Charles P.    Solomon, Edward.  *Street, Richard W. Sutherland, Francis C.    Thompson, Allen E  *Thorne, Oliver  Tippet, Richard S. Trainor, Owen P.  *Whitehall, Arthur S. Wilson, Percy D.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Kirkhill, Ont. Montreal. Kemptville, Ont. Richmond, P.Q. Coaticook, P.Q. Coatbridge, Scotland. Montreal. Westmount. Charlottetown, P. E. I. London, Ont. Ottawa, Ont.
Robinson, Bernard S. Ross, S', Graham. Runnells, George W. Sargent, Albert E. *Scrimgeour, Charles E., M.A. (St. Andrews) *Shaughnessy, Alfred T. *Shelley, Charles W. *Sinclair, Arthur J. Smyth, Charles P.   Solomon, Edward. *Street, Richard W. Sutherland, Francis C.   Thompson, Allen E *Thomson, William K. Thorne, Oliver. Tippet, Richard S. Trainor Owen P.	Strathroy, Ont. Dundas, Ont. Granby, P. Q Westmount. Montreal West. Montreal. Kirkhill, Ont. Montreal. Kemptville, Ont. Richmond, P.Q. Coaticook, P.Q. Coatbridge, Scotland. Montreal. Westmount. Charlottetown, P. E. I. London, Ont. Ottawa, Ont.

## (Royal Victoria College.)

Badgley, E. Ruth							5			. Montreal.
Baylis, Dora C	 12					 				. Montreal.
Bennetts, Edith E.	 7.					 . ,				.Ottawa, Ont.

<sup>\*</sup>Partial Student. ‡Conditioned Undergraduate. ||Double Course Student. The figures (2), (3) or (4), 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.

## HOME ADDRESS.

The state of the s	
Brehaut, Cora	. Murray Harbor S., P. E. I
brower, Margaret N	. Philadelphia. Pa.
Brownlee, Hazel	. Montreal
Carr, Robena M	Trout River P Q
Cruicksnank, Eleanor	. Windsor, Ont
*Davis, Gladys B	Montreal
‡Henry, Margaret P. M.	Tamworth Ont
*Jackson, I. Gertrude.	Montreal
‡Johnston, Charlotte L.	Kingsey Fells PO
Lamb, Elvie D. M.	Granby P O
Lawlor, Emma G.	Westmount
McEwen, Helen F	Carloton Place Ont
McKinnon, Annie M	Kimborley P. O.
MacKinnon, Marion G.	Southle Week
Miller Clare	Son Twis Detail Maria
Miller, Clare Miller, Margaret I	Employed Out, Mexico.
Mount, B. Ruth.	W-dankford, Ont.
Murchison, Vivian G. V.	. Westmount.
Novell Appie B	Montreal Annex.
Newell, Annie B	Montreal.
*Payette, Juliette C	Montreal.
Plaisted, Lilian D. W	Dunham, P. Q.
Ramsey, M. Ethel G.	Quebec, P. Q.
Rosenberg, Hannah N	Montreal.
Seymour, Louise E	Montreal.
*Skelton, Ethel H	Montreal.
*Spencer, Alice E.,	Montreal.
*Stroud, Helen H	Montreal.
Taylor, Margaret	Montreal West.
Trenholme, Katherine T	Westmount.
Younger, Lilian F	Montreal.

### THIRD YEAR.

## (McGill College.)

*Applegath, Charles S	. Hamilton, Ont.
Archibald, Kenneth	. Montreal
*Beaton, John M	. North Sydney, N.S.
Bole, Thomas H	Pembroke, Ont.
Cameron, Donald R	. Ottawa. Ont.
Canegata, David C	. Christiansted, D.W. I
Carey, William V	. Hamilton, Ont.
Cheesbrough, Hilton S	. Westmount
Clouston, Howard R	. Huntingdon, Q.
Corbett, Edward A	Rockburn, Q
*Cushing, Charles	. Montreal.
Daw, Herbert B	. Hamilton, Ont.
Dennison, Lawrence G	. Westmount.
Drummond, Guy M	. Montreal.
Durrant, Aubrey P	. Wetherby, Eng.
	0, 0.

<sup>\*</sup> Partial Student.

‡ Conditioned Undergraduate.

‡ Double Course Student.

#### HOME ADDRESS.

THE R. P.	Mantraal
Fisher, R. Eric	Montreal
Fleet, C. A. Robertson	. Montreal.
##Geggie, Harold J. G	Beauport, Q.
Gliddon, William O	Ottawa, Ont.
‡Gordon, Walter H	Montreal.
Hale, Charles A	Granby, Q.
Harvey, Charles H	. Zion City, Ill.
Hatcher, Albert G	. Bonavista, Nfid.
Hindley, Wilbur W	Fergus, Ont.
Holden, Herbert L. L	Trenton, Mich.
LeMesurier, C. Stuart	. Montreal.
McGougan, Alex. G	. Glencoe, Ont.
MacKenzie, James A	. Kirkhill, Ont.
McNeill, John T	Elmsdale, P.E.I.
Mayety LeRoy	. Montreal.
Mavety, LeRoy	Hull Q
Moodie, Robert T	Montreal
*Nicholson, Donald	Lucknow Ont
Packard, Mortimer L	Westmount
Paterson, Edward R.	Montreal
Dallas Hard C	Montroel
Pedley, Hugh S	Montreal.
Plimsoll, A. Reginald W	Montreal.
Rennoldson, David B	Montreal.
Richardson, John A	Wester d. Ont
*Rogers, David B.	. Watiord, Ont.
Ross, W. Gordon	. Montreal.
Shannon, W. Lloyd	. Vancouver, B.C.
"Stanton, Frank H	.St. John, N.B.
Surprenant, Thomas S. H	Lacolle, Q.
Townsend, Charles L	Montreal.
Tremblay, J. A	. Montreal.
Waterston, Douglas	Westmount.
Wilson, T. Edgar.	Langley Prairie, B.C
Wodehouse, Reginald B	Colchester, Eng.

## (Royal Victoria College.)

Buffalo, N.Y.
. Westmount.
. Montreal.
. Bournemouth, Eng.
. Westmount.
St. John West, N.B.
Pembroke, Ont.
Vancouver, B.C.
. Montreal.
. Montreal.
. Grand Ligne, Q.
. Montreal.
. Westmount.

<sup>\*</sup>Partial Student. ‡Conditioned Undergraduate. ||Double Course Student. The figures (2), (3) or (4), 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.

## HOME ADDRESS.

Schafheitlin, Gertrud	Montreal.
Slattery, Annie	Port Morien, C.B.
*Taylor, Gladys H	. Westmount.
Trench, Nora C	Montreal.
Vipond, Florence M	Hudson, Q.
Willis, F. Dorothy	Toronto, Ont.
Wilson, Florence M	Ottawa, Ont.
Wisdom, Bessie B	St. John, N.B.

## FOURTH YEAR.

## (McGill College.)

*Abramowitz, Herman	. Montreal.
Auchinleck, Gilbert G	St. John's, B.W.I.
Aver, Kenneth R	Westmount
Brooks, Murray G	Indian Head, Sask
Brooks, Murray G	. Montreal.
Creswell, Harris J	. Lachute Q
Crutchfield, Charles N	Huntingdon Q
Elliott, Robert	Hast Clifton O
Emerson, John	Vancouver RC
Feiczewicz, Louis	Quebec Q
Fineberg, Nathaniel S	Montreal
Gillis, Norman R	Hartsville PEI
Greenshields, E. J. Moray	Montreel
Hastings, William R.	Montreal
Hawkins, Frank E.	Montreal
Isherwood, Percy	Southport Fra
Kingman, Abner	Montreal
‡Lindsay, Sydenham B.	Montreel
Logan, Henry T	Eburno BC
Luttrell, Henry P. S.	Montreel
McBurney, Albert	Sauvenville O
MacLean, Herbert B	Pieton N.S.
McQueen, George R.	Vencouver P.C
Patrick, Frank A.	Nolson D.C.
Penny, Arthur G.	Mentanal
Ramsey, G. A. Stuart	
Rice, Emery L.	
Pilov Charles F	Mentagal Mentagal
Riley, Charles E	Eighbar M
Shanks, Walter R. L	
Shaw, Albert N	Montreal.
Simpson, Alan C	Montreal.
Steedman, William F	
Stewart, Robert C	
Stockwell, Ralph F	Danville, Q.
Timberlake, Ralph M	Montreal west, Q.
Tyndale, Orville S	Montreal.
Waterston, Edward J	. westmount.

<sup>\*</sup> Partial Student. ‡ Conditioned Undergraduate. || Double Course Student.

#### HOME ADDRESS.

Williams, Charles	E.										. Winnipeg, Man.
Wilson, George T		, .						*	· V		. Vancouver, B.C.
Wood, Harold W.			 								Ottawa, Ont.
Yates, Arthur										,	. Vancouver, B.C.

### (Royal Victoria College.)

Bouchard, Theodora C	Montreal.
Boyle, Gertrude M	Toronto, Ont.
*Com Vathanina E	Montroal
*Cam, Katherine E	Montheat.
*Cam, Nora	Montreal.
*Cheesbrough, C. M	. Westmount.
Dolbel, Amy A	. Westmount.
*Fleet, Isabella R	. Montreal
*Wing I Mobal	Montreal
*King, L. Mabel	A CUCCO
Libby, Ruth E	Ayer's Cliff, Q.
*Macaulay, Esther E	Montreal.
McClughan, Ellen	. Langley, B.C.
Macdiarmid, Katie	. Montreal
MacKeen, Anna M.	
Macnaughton, Ariel M	
*Pennington, Margaret H	
Plaisted, Gertrude M	Dunham, Q.
Ross, L. Isobel	
Sauvalle, Germaine H	
Smillia E Arma	Westmount
Smillie, E. Arma	
Smith, Annie	
*Thompson, Eileen B	Montreal.
*White, Ada W	Edinburgh, Scotland.
Younger, Marjorie D	
Tourson, man joine 2 million and a million a	

# PARTIAL STUDENTS TAKING SPECIAL COURSES FOR TEACHERS IN ARTS,

Archibald, Henry F.
Bacon, F. J. A., B. A.
Baillie, Jean F.
‡Baker, Amy E.
‡Barlow, Letitia
‡Batcheller, Maude E.
‡Bennet, M. Ethelwyn
‡Boa, Annie Ethel
‡Booth, Ethel Grace
Bremner, Jennie M.
‡Brown, Catherine E.
‡Brown, Grace
‡Buchanan, Margaret

†Buchanan, Margaret A.
†Butler, J. H.
†Butteris, Florence
†Cameron, Margaret B.
†Campbell, Catherine M.
Campbell, Margaret H.
†Carden, Ethel
†Carley, Margaret
†Carlyle, J. Elizabeth
Cayford, Gertrude B.
†Clarke, Margaret J.
†Cliff, Ethel G.
†Collard, Rose

<sup>\*</sup> Partial Student.

<sup>|</sup> Double Course Student. | French Phonetics only

Cowan, G. C. Cunningham, Henrietta M. Davidson, May B. Dawson, Caroline Dennis, Matilda S. Dennis, Selina E. ‡Estabrooks, Frances P., B.A. Everett, Emily E. ‡Ewan, Emma A. Fawcett, Florence R. ‡Fisher, Éthel M Francis, Sara ‡Greig, Janet T Gyton, David E. Hannah, Lillian H. Hearne, Lizzie Henderson, Gertrude Henschel, Ella Hills, Ellen M. Holiday, Beatrice Hopkins, Meade C., B. A. Hunter, Ruth Idler, May, B. A. ‡Irving, Barbara Jackson, Margaret A. James, A. Ethel, B. A. James, Agnes S., B. A. Keough, Alice M. Kirkman, Ada Kirkman, Kate ‡Kneeland, Warren A., B. C. L. ‡Kneen, E. B. Kneen, Grace A. Lamb, Lily C. Latimer, H. Elizabeth Laurie, Janet T. ‡Le Gallais, Sarah Ella Logan, David C. Lomer, Elfreda MacArthur, Archibald, B. A. McCoy, Isabel, B.Sc.
MacEwen, Gertude E. Macfarlane, Agnes C.
McFarlane, Ellen S. B. †Macfarlane, Rhoda M. †McGowan, Ada A. McLeod, Euphemia L., B. A. McLeod, Kate †McLeod, Maude I. ‡MacMartin, Ida M.

MacMartin, Christina M. McQueen, Katherine H. Marshall, H. C. Mead, Olive M. Metcalfe, Mary J. Miller, Ruby R. Moss, Florence H. Murphy, A. Winifred Murphy, Christian C. †Murray, Alice †Neill, Elizabeth M. M. †Norman, C. Norris, Amy Palmer, Jane V., B. A. Pattison, Harriet L. Perry, I. Perry, Jennie Reid, Elizabeth J. ‡Reid, Isabella M. S Robins, Samuel F. Ross, Margaret Ross, Theodora M. Rowell, Arthur H. Rowland, James Roy, R. Eadie Shaw, H. A. Shaw, S. Louise, B. A. Sibbald, Florence D. Simpson, Edith P. Simpson, Mabel K. Sloan, Selina F. Smiley, Francis C., B. A. Smith, Isabel L. Smith, Janet Smith, Naomi F. Stewart, Ethel M. Stewart, M. Agnes Swan, Annie B. Swan, Annie B.
Symington, Agnes C.
Tait, Winifred A.
Troup, Margaret
Varney, Jessie M.
Vibert, Ethel E.
Wales, J. Grace, B. A.
Wallace, Mabel L.
Warringr, J. Eva., B. A. Warriner, J. Eva, B. A. Wilson, A. Muriel, B. A. Wilson, Margaret J., B. A. Wisdom, Katharine F., B. A. ‡Woodside, Violet E. L.

<sup>‡</sup> French Phonetics only.

### FACULTY OF APPLIED SCIENCE.

FIRST YEAR.

	1 11001 1 11111	
NAME.	Home Address.	WHERE LAST EDUCATED.
*Alexander W Boyd	Westmount	St.Paul's House Sch., Eng.
Allwood, Frank H		
		Rothesay College, N.B.
†Anderson, John G	Vietoria BC	Victoria College, 11.D.
Anderson, John R	Helifoy NS	Delhousia College.
Archibald, Ernest B	Montroel	Crichton School
Archibald, Effect D	Montreal	Montreel High School
Armstrong, Ives H	Montreal	Montreal High School
Austin, Morris	Montreal	Montreal High School.
†Bacon, Thomas H	Daniel Hants English	Charteshave Course Francisco
		Charterhouse, Surrey, Eng.
*Barnaby, Hazen O	.St. John, N.B	Rothesay College, N.B.
*Baxter, Quigg E	. Montreal	Loyola College.
†Bayly, Harry F	. Montreal	Meisterschaft, Toronto.
†Beaulne, Ernest	. Waterloo, Q	Stanstead College.
*(2) Bisson, Leonard		
Boast, Richard G	Richmond, Q	.Shortell's Academy.
Bolton, Philip L	.St. Lambert, Q	Feller Inst., Grand Ligne.
*Boyd, T. Bridgman	Bobcaygeon, Ont	.Queen's College, B. Guiana
†Brebner, William I., Ge	orgetown, B. Guiana.	.Queen's College, B. Guiana
†Briercliffe, Henry C. D.	Richland, Man	.St. John's Coll., Winnipeg.
*Brosseau, Louis P	.St. Johns, Q	. Ottawa University.
Brotherhood, Wilfred C	Stratford, Ont	Private Tuition.
		Ottawa Collegiate Inst.
*(2) Cardinal, Emile	. Montreal	Shortell's Academy'
†Carnwath, James	. Riverside. N.B	. Riverside Cons. School.
Caron Charles	Quebec Q	. University of Ottawa.
Childe Cyril G	Calgary Alta	.Western Canada College.
Christie John E	Lachute Q	Lachute Academy
Clarke John H	Ottawa Ont	Lachute Academy. Ottawa Collegiate Inst.
+Clark Raymond B	Mandeville Jamaica	Dulwich College, London.
†Clawson, Frederick A	St John N B	St John High School
Collier, Harold F	Montreel	Abjurden School
Conneller William I	Un Paul Comp Jon	naica. St. George's College.
Coughlan, Patrick E.	Montroel	Showtell's Academy
Coughian, Fatrick E.	Ottowa Ont	Ottawa Collegiate Inst.
Crahing Anthon	Montreel	Montreal High Cohool
Darling, Arthur	Montreal	Montreal High School.
Darling, Gordon	East Casimates NX	Comm. & Tech. High Sch.
*Daw, Francis P	. Fort Covington, N.1	Montreal High School.
		Montreal High School.
*Demers, John C. A	St. Johns, Q	acques Cartier Normal Sch.
*Dennison, Lawrence G.	Westmount	. Montreal High School.
Dixon, Walter U	Montreal	. Montreal High School.
Dodd, Geoffrey J	Newport, Jamaica	Potsdam School, Jamaica.
†Doran, Edward SI	Bombay, India, Marlbu	ıria.Montreux, Switzerland.
*Durie, William A	Ottawa, Ont	. Ashbury College, Ottawa.
Elliott, Fergus E	Montreal	Montreal High School.
Evans, Alfred J. L	Quebec, Q	. Bishop's College School.

\* Partial Student. † Conditioned Student.

The figures (2), (3) or (4), 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.

NAME.	Home Address.	WHERE LAST EDUCATED.
		Bedford Grammar School.
†Flewin, Walter R	Port Simpson, B.C	Private Tuition.
Forbes, D. Stuart.	. Montreal	Montreal High School.
†Fortier, Frank A	Westmount	erchiston Castle, Edinburgh
Foster, Francis W	Montreal	Crichton School
†Fuller, G. LeRoy	Farnham, Q	Stanstead College
†Gail, Arthur	Montreal	Shortell's Academy.
Garth, Charles H	Rosemere, Q	Montreal High School.
Gillies, Clyde C	Toronto, Ont	Harbord Collegiate Inst.
Glasmacher, Walter A	Ottawa, Ont Holy	Angels' Coll., Buffalo, N.Y.
Gnaedinger, Cedric W	Westmount	Wykeham House School.
Gohier, Ernest	St Laurent O	St Laurent College
†Gorman, Clarence	Ottawa Ont	Ottawa Collegiate Inst
Green, F. Douglas L	. Mexico City	Bishop's College School.
*(2) Halliday, Charles I.	. Pakenham, Ont	Agricultural Coll., Guelph.
Hasbrouck, Bernard	. Nyack-on-Hudson, N	Y. Princeton University.
Hemmant, E. Vincent	Seven Oaks, Eng	Pembroke Coll., Cambridge
Hetherington, Errol A.	Quebec, Q	Private Tuition.
†Holgate, Harry W	Westmount	Ionkton Combe, Bath, Eng.
Holland Francis C	Leamington Eng S	t. Joseph's Coll. Dumfries.
Hooper, J. Harold	North Milton, P.E.I.	Prince of Wales College.
Irwin, William E. C	.Ottawa, Ont	Ottawa Collegiate Inst.
Ivev. Charles H	. London, Ont	London Collegiate Inst.
Johnson, Frederick H.	Montreal	St. John's School
Johnston, Robin L	St. John, N.B.	St. John High School.
Jones, C. E. Kingdon.		Renfrew Collegiate Inst.
Kelly Albert J	Edmonton Alta S	St. Boniface Coll., Winnipeg
Kingsley, Edward R	Lindsay. Ont	Lindsay Collegiate Inst.
Koch, Ernest C	. Montreal	Shortell's Academy.
†Lauder, Lester E	. Maisonneuve, Q	Montreal High School.
†Legris, C. Ernest	Arctic, R. I	St. Mary's Coll., Montreal.
*(2) Legris, Joseph A	Louiseville, Q	Ottawa University.
Lesage, George W	Montreal	Wykeham House School.
Linagh, Ronald K	Maisonneuve Q	Mount St. Louis Inst
Lindsay, Neville H	. Calgary, Alta St.	John's College, Winnipeg.
Lipsey, Joseph	. Montreal	Shortell's Academy.
Lockhart, Earle A	. Montreal	Montreal High School.
*Logan, William H	. Montreal	Private Tuition.
Macaulay, James R	Montreal	Greenock Acad., Scotland. E.IAlberta College, Ed-
imacDonaid, G. Heath	. Muliay Harbor N., I.	monton, Alta.
McDonald, Percy E	. Hamilton, Ont	Hamilton Collegiate Inst.
McDonell, Frank H	. Cornwall. Ont	Cornwall High School.
McDougall, Roderic J.	. Vankleek Hill, Ont	Ottawa University.
McGannon, Edward M	. Brockville, Ont	Brockville Collegiate Inst.

<sup>\*</sup>Partial Student. †Conditioned Student. ||Double Course Student. The figures (2), (3) or (4), 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.

NAME.	Home Address.	WHERE LAST EDUCATED.
McGiil, J. Bryson	. Montreal	Montreal High School.
McInnes Hugh A	. Midnapore, Alta	. Western Canada College.
†McMannus, Thomas	. Hamilton, Ont	. Highfield School, Hamilton
*McMaster, Harold G	. Montreal	St. Alban's Sch., Brockville
Mallory, G. E. Leigh	Bowmanville, Ont	Trinity College, Port Hope.
†Matheson, Walter	Charlottetown, P.E.J	I. Prince of Wales College.
Morkill, Frank E	Lima, Peru	Bishop's College School.
Murphy, William H	. Montreal St.	Catharines Coll., Inst., Ont.
Murray, George E	. Ottawa, Ont	Montreal High School.
Nares, Hilary G	. Winnipeg, Man	. Upper Can. Coll., Toronto.
Oliver, Stuart E	Ouches O	Mount St. Louis College.
Oughtred, Lawrence W.	Marbleton O	Stanctood College
Ovelle Nester Keith	Babylon Long Island	d. St. Joseph's (Springhill
(B.A., St. Joseph'	a)	College.)
tPain George F	. Allston, Mass	College.) St. John's Sch. Montreal.
tPatterson Arthur C	Macleod, Alta	. Upper Can. Coll., Toronto.
†Peck, Hugh	. Montreal	St. John's School.
Pengellev, Walter G	. Balaclava, Jamaica	Denstone College.
†Philips, Campbell	. Westmount	Shortell's Academy.
†Planche, Clifford C	. Cookshire, Q	Stanstead College.
Pope, Charles A	.Kenora, Ont	Kenora High School.
Ralston, Edward da F	. Sao Paulo, Brazil	. Seafield Park College, Eng. . Westmount Academy.
Ray, Hugh P	. Westmount	Westmount Academy.
*Reid, Arthur W	Ottawa, Ont.	Private Tuition.
†Richardson, Alan I	. Montreal	Montanal High Cohool
†Richardson, Creighton	Toronto Ont	Ridley Coll., St. Catharines.
*Ross & Graham	Dundag Ont	Tridley Con., St. Catharines.
Ross W Gordon	Montreal	Prince of Wales College.
Sankey Sydney J	Wolverhampton En	g Rydal Mount, Colwyn
		Bay, Eng.
†Scott, Allen N	.Ottawa, Ont	Ottawa Collegiate Inst.
Scrivener Robert M	. Hay, N.S.W. Austral	ia. Sydney Grammar School.
* (2) Seath, J. Marshall.	. Montreal	Montreal High School.
Shanly, Coote N	. Montreal	Dufferin Grammar School.
*(2) Skelton, Philip H	. Montreal	. Montreal High School.
†Smith, George A	. Westmount	Westmount Academy.
*Smith, Harold F	. Montreal	.Crichton School.
Smith, William P	Montreal	Montreal High School.
Staveley, Walter D	Montreal	Montreal High School.
Stevens, S. Ruston	Tondon Fra	Berkhamsted School, Eng.
†Stuart, George A	Truro NS	Truro Academy
Taylor, Garnet S	Westmount	Stanstead College
Thompson, Norman A	Coaticook Q	Stanstead College
Turnbull, Vicars St. L.	.Montreal	. Trin. Coll. Sch., Port Hope.
Turner, William H	. Ottawa, Ont	Ottawa Collegiate Inst.
*Vincent, Robert P	. Quebec, Q	. High School, Quebec.
Walcott, William H	St. Michael, B'does	Harrison College, B'does.

<sup>\*</sup>Partial Student. †Conditioned Student. ||Double Course Student. |
The figures (2), (3) or (4), 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.

NAME.	Home Address.	WHERE LAST EDUCATED.
Watson, Hugh M Webb, Edward M. *White, H. Albert Williams, Alfred G. Willis, Frank S. Willis, George C.  Wilson, T. Edgar Wood, Douglas F.	Brockville, Ont Montreal Ottawa, Ont Buckingham, Q Westmount Toronto, Ont Langley, B.C Westmount Aylmer, Q	Brockville Collegiate Inst. Montreal High School. Westmount Academy. Ottawa Collegiate Inst. Ashbury College, Ottawa. Westmount Academy. Trin. Coll. Sch., Port Hope. Vancouver H. S. Westmount Academy. St. Mary's Coll., Montreal.
	SECOND YEAR.	
NAME.		Home Address.
‡Boright, G. Kenric. Brown, Osburn N.  ‡Brunton, J. Stopford L. Burland, George L. Callander, Delmer W. ‡Chrysler, Philip H. Clark, Albert W. G. Cloran, J. Harry. Cole, F. Thornton. Cowles, Eugene P. Cowley, A. Tom N. Cox, John R. ‡Crockett, Thomas J. ‡Cummins, Philip M. Dakin, Frederick W. Daubney, Charles B. Daubney, James E. Dawes, Andrew S. †de Hart, Joseph B.		Truro, N.S. Montreal, Q. Montreal, Q. Montreal, Q. New Glasgow, Q. Ottawa, Ont. Truro, N.S. Charlottetown, P.E.I. Montreal, Q. Newcastle, N.B. London, Eng. Ottawa, Ont. Guelph, Ont. Ottawa, Ont. Valleyfield, Q. Westmount. Q, Montreal, Q. Wontreal, Q. Montreal, Q. Danville, Q. Magog, Q. Westmount, Q. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Montreal, Q. Danville, Q. Magog, Q. Westmount, Q. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Montreal, Q. London, Eng. O'Leary Station, P.E.I. Montreal, Q. Fordwich, Ont. Westmount, Q.

<sup>\*</sup>Partial Student.

<sup>†</sup>Conditioned Student. ‡ Conditioned Undergraduate. ||Double Course Student

NAME.	HOME ADDRESS.
‡Duguid, A. Fortescue	Aberdeen, Scotland.
Echenberg, A. David	Sherbrooke Q.
‡Elkins, Robert H. B	Fast Orange N.I
TEIRINS, Robert H. B	Ottown South Ont
Ewart, Douglas M	Ottawa Bouth, Ont.
‡Ferrier, Tyrrell	Gillingnam, Eng.
‡Fitzpatrick, Robert Y	New Liskeard, Ont.
Fowler Frank S	Winnipeg, Man.
Foy Charles A	Coaticook. Q.
‡Fraser, Robert J	Ottawa Ont.
Fregeau, John H	Three Rivers O
*(3)Frith, G. Harry	Cumminga Bridge Ont
*(3) Frith, G. Harry	Cummings Druge, Ont.
Gartshore, W. Moir.	Hamilton, Ont.
Gilchrist, T. Ernest	Hintonburg, Ont.
Gladman, Victor L	Lindsay, Ont.
tGooding. Winfield U	Stirling, Barbados.
+Goodstone A Simon	Montreal. Q.
*(3)Gosselin, Albert	Notre Dame de Stanbridge Q
Hanson, W. Gordon	Westmount O
Hanson, W. Gordon	Malla Andre 1:
Harris, Norman C	Melbourne, Australia.
Haultain, Alexander G	Montreal, Q.
‡Hepburn, J. W. Reginald, B.A. (Bishop's)	Richmond, Q.
Hollinsed, Richard E. L	St. John's, Barbados.
Jackson Donald A	Montreal. Q.
‡Jones, Guy C	Halifax NS
Kingston, John L	Ottawa Ont
Kohl, George H.	Montroel O
Little, Harold R	London Ont
Little, Harold R	Community Ont.
MacDiarmid, Arch. A	Covey Hill, Ont.
Macdonald, J. Harrison.	Claresholm, Alta.
Macdonald, J. J.	Vernon River, P.E.I.
Macfarlane, R. George	Huntingdon, Q.
McHenry, Morris J	London, Ont.
†Mackintosh, Ivan R	London, Ont.
MacKay, Edward	Montreal, Q.
MacLean, Calvin S	St. John N.B.
McLeod, Allan C. G.	Montreal O
tMcLeod, John W	Santatown NS
1 McLeod, John W	Montanal O
McNab, Lewis G	Montreal, Q.
‡Macrae, John M	Golden, B.C.
Magrath, C. Bolton	Lethbridge, Alta.
Maltby, Quintin J	Midland, Ont.
Mauer, Eli	Montreal, Q.
Mauer, Eli	Port Stanley, Ont.
Millican, A. Gordon	St. John, N.B.
Nares, Basil L	Winning Man
Narraway, Athos M	Ottawa Ont
Needham, Robert J	London Ont
D. A. I. Cormon	Lower Leland Cove Med
Paine, A. J. Carman	Lower Island Cove, Nnd.
‡Payne, Sydney C	Ottawa, Ont.
Pearce, Seabury K	Calgary, Alta.
Penney, Edgar	Carbonear, Nfld.

\*Partial Student. ‡ Conditioned Undergraduate.
The figures (2), (3) or (4), 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.

NAME.	· Home Address.
*(3)(4)Phillips, Hobart W	Oskaloosa, Iowa
Pope, Maurice A	Ottawa. Ont.
‡Popham, J. F. Watson	London, Eng.
Powis, Gordon D	Hamilton, Ont.
‡Reid, Archibald C	Winnipeg, Man.
Reid, Rupert H	Sault Ste. Marie, Ont.
Robertson, Edgar D	
*Robertson, Harry A	
Rutherford, John R	Pictou, N.S.
Ryley, A. St. Clair	Ottawa, Ont.
*(3)Scott, Oswald H	Toronto, Ont.
Scott, Robert W	Queenstown, S. Africa.
Simpson, Alan C	Montreal, Q.
*(3)Slingsby, Henry	
*(3)Smith, Emile L	
‡Soule, Charles E	St. Albans, Vt.
Sproule, Stanley M	
‡Stark, Robert	
*(3)Stevenson, George	
Strong, Horace R. F	
*Strumbert, J. Aubrey	
Stuart, Alexander G	
Timberlake, John N	
Vinet, Eugene	
Von Pozer, Charles H	Aubert Gallion, Q.
Vroom, Harold H	Woodstaak Ont
White, J. Gordon	Wheatlest Ont.
†Williams, F. G. Maxwell	Both Eng
twiniams, F. G. Maxwell two down the two down the two down to	Poterborough Ont
Wyman, John K	Rockland Ont
Young, Alexander A	Solkirk Man
tYoung, William Lee	
+ Louis, Timam Do	11.0,

#### THIRD YEAR.

*Allan, Marshall G	Perth. Ont.
‡Allen, Alexander D	
‡Allen, Leslie W	
Anderson, Sedley C	
‡Babson, George L	
Baillie, Archibald F	Montreal, Q.
Bayly, George William	
Bowman, Alexander I. M.	.St. Therese, Q.
Boyd, G. Mossom	. Bobcaygeon, Ont.
Bregent, Edmund F	Montreal, Q.
*(4)Briegel, Walter O	. Montreal, Q.
‡Briggs, Arthur F. M	St. Catharines, Ont.
Bronson, Frederic E	
Brunton, Frederick K	Denver, Col.

<sup>\*</sup>Partial Student. ‡Conditioned Undergraduate. ||Double Course Student. The figures (2), (3) or (4), 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.

NAME.	HOME ADDRESS.
Burbidge, George H., B.A. (Toronto) ‡Byrne, John H	Ottawa, Ont.
†Byrne, John H	Ottawa, Ont.
Campbell, William B	Winning Man
‡Cantley, Charles L	New Glasgow N.S.
Carr, William L., B.A	Trout Divers O
†Coto Comoll	Sharbrasks O
Carroll	Waster court
toneesbrough, A. Gordon	westmount, Q.
‡Conway, Edmund J	Ladysmith, B.C.
Cook, Archibald S	Quebec, Q.
Coulin, Louis A	Montreal, Q.
‡Dawson, Frederic J	Truro, N.S.
De Lancey, James A	Middleton, N.S.
Dennis, W. Melbern	O'Leary, P.E.I.
Descarries, Joseph A	Lachine, Q.
Dickieson, Arthur L	Ottawa, Ont.
Dickson, Garnet H	. Westmount. Q.
‡Dion, A. Hector	Ottawa Ont
Dowswell, Harry R	Dutton Ont
Dwight, Herbert B	Picton Ont
*(4)Eakins, James M.	Toronto Ont
Edwards, Godfrey B	Ashleworth Fng
‡Ekers, H. Austin	Montreal O
*Ellsworth, Lincoln.	Now Vorle Cite
Fetherstonhaugh, H. L.	Montreal O
Fetterly, Philip A	Aultarilla Out
*Fitzgerald, Charles B. P.	Middleton Indone
Ford, Walter S	Winning Man
Fox, C. Harry.	Winning Man.
Fraser, Archibald N.	Casting of O
‡Galbraith, William J.	Coaticook, Q.
Gall, Douglas M.	Cap Rouge, Q.
Gall, Douglas M	Lachute, Q.
Gibb, Roger	Wimbledon, Eng.
‡Gillis, Hugh Bernard	Sydney, N.S.
*Gilmour, Hamilton L	Ottawa, Ont.
‡Gomes, Lawrence F	St. John's, B.W.I.
Goode, John D	Westmount, Q.
‡Graham, Harold M	New Glasgow, N.S.
Grahame, Dallas F	Montreal, Q.
‡Green, Harold P	Oak Leaf, Ont.
Grove, Humphrey S	London, Eng.
Hague, Owen C. F	Montreal, Q.
†Heywood, Edward P	Cambridge, Mass.
‡Hilborn, Percy R	Berlin, Ont.
Irwin, John W	Montreal, Q.
Johnston, Harold S	Gananoque, Ont.
Kennedy, W. Alan	Vancouver BC
Ker. Frederick I	Montreal Q
LaForest, Guy B	Montreal. Q.
†Landry, Wilfrid A	Dorchester, N.B.
*(4)Lees. Geoffrev	London, Eng.
Letourneau, Marius	Montreal, Q.

<sup>\*</sup>Partial Student. ‡Conditioned Undergraduate.

The figures (2), (3) or (4), 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.

#### HOME ADDRESS.

T. 1 11 1 W	Investor and ill N 7
Lindsay, Alexander M	Montreal O
*Lowrey, John D	Ottoma Out
‡Lumsden, Hugh A	Martin 1
McDougall, J. Cecil.	Montreal, Q.
MacKinnon, John A	Finen, Ont.
McKinnon, Kenneth R	New Glasgow, N.S.
McKnight, Will F	Douglastown, N.B.
*(4)McLachlin, Hugh C	Arnprior, Ont.
McLean, Douglas L	. Ottawa, Ont.
*Manny, David E	Beauharnois, Q.
Maver, Alexander M	Montreal, Q.
Mooney Harry V	Stardale, Ont.
tMorison Hugh G	Ormstown, Q.
*Mulock Redford H	. Winnipeg. Man.
Noirn John S	Truro, N.S.
+O'Neill John J	. Port Colborne, Ont.
†Paulson Hans K	Copenhagen, Denmark.
Poissant Onesime E	Montreal, Q.
*(1) Portor Charles G	. Calcutta, India
Powell William H	Little Harbor, N.S.
Powell, William H Racey, Percy W., B.Sc.	Lennoxville, Q.
‡Raymond, William W	St. John, N.B.
Richardson, Charles E	St. Mary's, Ont.
‡Rider, Ezra B	Fitch Bay, Q.
Robb, Charles A	Amherst, N.S.
‡Ross, Allan C	Ottawa Ont
†Ross, Charles C.	Hintonburgh Ont
Russell, Benjamin	Halifay NS
Sailman, Robert T. H.	Malvern Jamaic
‡Scott, W. Ralph	Napanee Ont
1Scott, W. Raiph	St John N B
*(4)Seely, Roy A. Smith, George W	Montreel O
Smith, George W	St John N B
Snook, John S	Truro N S
Snook, John S Soper, Arthur J	Brookwille Ont
Soper, Arthur J	Dle alsburn Fra
Stansfield, Maurice	Commercide DE)
Stewart, Leighton	Strath Control DEI
Stewart, Robert B	Manthey, I.E.I
Sutherland, Luther H. D.	Double and N. C.
Thorne, Harvey	Dartmouth, N.S.
Trotter, Clifford T	St. Johns, Q.
†Vessot, S. Ernest	Johnte, Q.
Wilson, Alexander	Montreal, Q.
Wilson, Alexander.  Winslow, Rainsford H	Fredericton, N.B.
Windows Charact	. Wontreat. W.
Yuill, Harry H	Truro, N.S.

<sup>\*</sup> Partial Student.

‡ Conditioned Undergraduate.

The figures (2), (3) or (4), 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.

### FOURTH YEAR.

N	A	h	K	Te	

### HOME ADDRESS.

*Archibald, E. M. Brenton	. Halifax, N.S.
Baird, John Boyd	.St. John's, Nfld.
Ballantyne, Thomas B	.Galt. Ont.
Batchelder, Charles K	Newport, Vt.
Bates, Harry E	Mystic, Conn.
‡Baylis, Harold A	Montreal Q.
Bell, Valentine H.	Kingston Jamaica
*Bentley, W. Wallace, B.A	Fulford Grange Eng
‡Brennan, Charles V.	Summerside PEI
Bristol, Charles F	Ottown Ont
Brooks, Charles E	Grefton Ont
Callaghan, John C	Hamilton Ont
Cameron, James S.	Stellanton, VIII.
Campbell, Edmund E	WJ-t
*Canfield, Frederick O	. Woodstock, Ont.
Carmichael, H. Graham	. Montreal, Q.
Carruthers, Kenneth B.	Kingston, Ont.
‡Cattanach, Fred'k. W. C	Newport, Vt.
Christie, Harold R. M	Asheroft, B.C.
Churchill, Cecil	. Montreal, Q.
Copp, Walter Percy	Sackville, N.B.
‡Cowan, Claude W	Ottawa, Ont.
‡Crocker, Stanley J	St. Thomas, Ont.
D'Aeth, John B	. Kingston, Jamaica.
Davies, Harold C	Hull, Q.
Davis, Francis M	. Windsor, Ont.
Dawson, Victor E	
Dick, William J	Nanaimo, B.C.
Dowell, Harry L	Londonderry, N.S.
Eaton, E. Courtlandt	Montreal, Q.
Ells, Sidney C., B.A	. Ottawa, Ont.
‡Emmerson, Robert H	. Moneton, N.B.
Estey, J. Royden P	St. John, N.B.
Finlayson John N	Merigomish, N.S.
Forbes, John H	Montreal, Q.
Graham, John R	Ottawa, Ont.
Guillet, George L	. Cobourg, Ont.
Harding, Winthrop K	Derby Line, Vt.
Haves, Albert O	Granby, Q.
Herbert , William H	Ottawa, Ont.
Hodge, Charles A	Birchton, Q.
Holloway Edward S	Montreal, Q.
*Howe, John P	. Pembroke. Ont.
Irwin, Robert H	. Ottawa Ont.
Kemp, J. Colin.	. London, Eng.
Kenyon, L. Amos.	. Waterloo, Q.
Kerr, Archibald	Dutton, Ont.
Killam, George	Yarmouth, N.S.
Kingston, Lawrence B	Ottawa Ont
Timesour, Danielo D	outs, outs.

<sup>\*</sup>Partial Student. ‡Conditioned Undergraduate.

#### HOME ADDRESS

Lea, William S. Lighthall, Abram.	
	Victoria, P.E.I.
Lighthall, Abram	Vankleek Hill, Ont.
Lundy T H D	Brantford, Unt.
+MoFoo M C Coll BA	Montreal, Q.
McGuiro Gordon	Montreal, Q.
+MacKay Robert M	New Glasgow, N.S
*Malaran Thomas	Montreal, Q.
*Macklem Oliver T	Toronto, Ont.
+Martin C Fraget	Moncton, N.B.
Mathan William A	Kenora, Unt.
Marrong Francis I. S	nastings. Darbados.
Malhuish Paul	East Sheen, Surrey, Eng.
*Morrill Arthur J	Montreal, Q.
Mohan Richard T	Brockville, Unt.
Montgomerr Edger G	New Richmond, Q.
+Moore William I	Hvde Park, vt.
Morrin Arthur D	Lachute, Q.
*Morrow, H. Mervyn. Mulligan, William H. Murphy, James H.	. Chapleau, Ont.
Mumby William H	Rochester, N.Y.
Paré, Alphonse A.	White Horse, Yukon,
Parham, John Bright	Outremont, Q.
†Pease, E. Raymond	Montreal Q
Pease, E. Raymond	Regina Sask
Porry Kenneth M	. Regina, Sask.
Perry, Kenneth M	. Regina, Sask. . Ottawa. Ont.
Perry, Kenneth M. Pitts, Gordon McL.	Ottawa, Ont. Ottawa, Ont.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C.	Ottawa, Ont. Ottawa, Ont. Ottawa, Ont.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Rapd Harbert W. B.A. (Mount Allison).	. Regina, Sask Ottawa, Ont Ottawa, Ont Sackville, N.B.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison)	. Regina, Sask Ottawa, Ont Ottawa, Ont Ottawa, Ont Sackville, N.B Montreal, O.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G.	. Regna, Sask Ottawa, Ont Ottawa, Ont Ottawa, Ont Sackville, N.B Montreal, Q Port Antonio, Jamaica
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L.	. Regna, Sask Ottawa, Ont Ottawa, Ont Ottawa, Ont Sackville, N.B Montreal, Q Port Antonio, Jamaica . Ottawa, Ont.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. Richards, Edward L. Ross, Cecil M.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G.  Richards, Edward L. Ross, Cecil M. Ross, Donald.	Regina, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnineg, Man.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N.	. Regna, Sask Ottawa, Ont Ottawa, Ont Ottawa, Ont Sackville, N.B Montreal, Q Port Antonio, Jamaica . Ottawa, Ont Edmonton, Alta Winnipeg, Man. St. Lambert, O.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G.	Negna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G.	Negna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. Richards, Edward L. Ross, Cecil M. Ross, Donald. Ruttan, Francis N. Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David Smith, Randolph R. William G. William G. Sheen, Herbert L.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q. Montreal, Q.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David Smith, Randolph R. Spencer, Walter H.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q. Montreal, Q. Montreal, Q.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David. Smith, Randolph R. Spencer, Walter H. ‡Sproule, Gordon St. G.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q. Montreal, Q. Montreal, Q. Edinburgh, Scotland.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David Smith, Randolph R. Spencer, Walter H. ‡Sproule, Gordon St. G. Stavert, William D.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q. Montreal, Q. Edinburgh, Scotland. Ottawa, Ont.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David Smith, Randolph R. Spencer, Walter H. ‡Sproule, Gordon St. G. Stavert, William D. Stitt, Ormond M.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q. Montreal, Q. Montreal, Q. Edinburgh, Scotland. Ottawa, Ont. Hamilton, Bermuda.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David Smith, Randolph R. Spencer, Walter H. ‡Sproule, Gordon St. G. Stavert, William D. Stitt, Ormond M. Trimingham, James H.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q. Montreal, Q. Montreal, Q. Edinburgh, Scotland. Ottawa, Ont. Hamilton, Bermuda. Montreal, Q.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David Smith, Randolph R. Spencer, Walter H. ‡Sproule, Gordon St. G. Stavert, William D. Stitt, Ormond M. Trimingham, James H. Turnbull, Kenneth.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q. Montreal, Q. Montreal, Q. Edinburgh, Scotland. Ottawa, Ont. Hamilton, Bermuda. Montreal, Q.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David Smith, Randolph R. Spencer, Walter H. ‡Sproule, Gordon St. G. Stavert, William D. Stitt, Ormond M. Trimingham, James H. Turnbull, Kenneth. Vipond, Wm. Stanley	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q. Montreal, Q. Montreal, Q. Edinburgh, Scotland. Ottawa, Ont. Hamilton, Bermuda. Montreal, Q. Montreal, Q. Montreal, Q. Hamilton, Ont.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David Smith, Randolph R. Spencer, Walter H. ‡Sproule, Gordon St. G. Stavert, William D. Stitt, Ormond M. Trimingham, James H. Turnbull, Kenneth. Vipond, Wm. Stanley. Whitton, Corbett F.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q. Montreal, Q. Edinburgh, Scotland. Ottawa, Ont. Hamilton, Bermuda. Montreal, Q. Montreal, Q. Hamilton, Ont. Ottawa, Ont.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David Smith, Randolph R. Spencer, Walter H. ‡Sproule, Gordon St. G. Stavert, William D. Stitt, Ormond M. Trimingham, James H. Turnbull, Kenneth. Vipond, Wm. Stanley. Whitten, Corbett F. Whyte, Herbert B.	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q. Montreal, Q. Montreal, Q. Edinburgh, Scotland. Ottawa, Ont. Hamilton, Bermuda. Montreal, Q.
Perry, Kenneth M. Pitts, Gordon McL. Pratt, Austin C. Raphael, Gordon S. Read, Herbert W., B.A. (Mount Allison). Renaud, Bruce G. ‡Richards, Edward L. Ross, Cecil M. ‡Ross, Donald. ‡Ruttan, Francis N. ‡Ryan, Frederick G. Scott, George E. Scott, William G. Sheen, Herbert L. *Shennan, David Smith, Randolph R. Spencer, Walter H. ‡Sproule, Gordon St. G. Stavert, William D. Stitt, Ormond M. Trimingham, James H. Turnbull, Kenneth. Vipond, Wm. Stanley	Regna, Sask. Ottawa, Ont. Ottawa, Ont. Ottawa, Ont. Sackville, N.B. Montreal, Q. Port Antonio, Jamaica Ottawa, Ont. Edmonton, Alta. Winnipeg, Man. St. Lambert, Q. Birmingham, Eng. Valleyfield, Q. Cardiff, S. Wales. Douglas, Scotland. Montreal, Q. Montreal, Q. Montreal, Q. Edinburgh, Scotland. Ottawa, Ont. Hamilton, Bermuda. Montreal, Q. Westmount. O.

<sup>\*</sup> Partial Student.
† Conditioned Undergraduate.

## FACULTY OF MEDICINE.

FIRST YEAR.

NAME,	Home Address	WHERE LAST EDUCATED
Armstrong, John D	Ottawa, Ont	Ottawa Collegiate Inst.
*Bilodeau, Joseph P	New Westminster B	C. Columbian Collogo
Diuneau. I. Eugar	Wontreal	NewWestminsterH.S.,B.C. Montreal High School
†Burrows, Garfield C   Canegata, David C	Unristiansted II W I	Grammar Sah Antima
(2) (3)*Chrystie, Walter,   Clouston, Howard R	Huntingdon ()	Huntingdon Academy.
Davies, Allulew I	· Dull. W	Ottawa Collegiate Inst. Vankleek Hill Coll. Inst.
Derome, n.R., B.A. (Lava	al). St. Chrysostome. Q.	Sem. of Philosophy, Montreal Trinity Col. Sch., Port Hope
†Draper. F. Erle	Montreal	Shortell's Academy
†Falardeau, Adelard	n)Gretna, Man .Hull. Q	Oberlin College.
Filion, Adolphe T	Arundel O	Vancouver College.
Geggie, Harold J. G	Beauport Q	Sussex Grammar School.
Gold, Maxwell (Dent.)	- Montreal	Shortell's Assdamy
nepert, Albert J	Shawinigan Falls. ()	Maine Wesleyan Seminary. Stanstead College. Prince of Wales College.
Johnson, Frank A	Waterbury Conn	Ridley Col., St. Catharines.
†Keith, Claude H	New Glasgow NS	St. Francis College School
*Kirsch, Simon, M.A	Montreal	Loyola College.
Lennox, Thomas H	Montreal	Montreal High School. Regine (Seels ) High Sch
Lightstone, B. (Dent.).	. Montreal	Catholic High School
"McCann, Walter E., B.A.  MacDonald, Dalraddy I.	Aviwin ()	Montreal High School.
TMacDonald, Donald M.	Gould Q	Sherbrooke High School Chateaugay High School.
MacHaffie, Lloyd P	Cornwall Ont	Cornwell High School
McKay, Fred. H	.Cranbrook, B.C	Prince of Wales College.

<sup>\*</sup>Partial Student.
†Conditioned Student.
Double Course Student.

Name	Home Address	WHERE LAST EDUCATED.
MacNutt, Louis W., †Malone, Reginald H.,  Mavety, J. Le Roy.,  Mewburn, Frank H. H., Mooney, Joseph B., B.A. Mulcahy, William E., Oulton, John R., B.A., Planche, Henry Howard	Charlottetown, P.E., Norwood, N. Y. Charlottetown, P.E.,I St. John's, B.W.I Montreal Lethbridge, Alta St. John, N.B. Holyoke, Mass Lorneville, N.S. Mt. Cookshire, Q. Montreal Waskada, Man	I. Horton Collegiate Acad. Norwood High School. Prince of Wales College. Harrison College, Barbados H. S. Kemptville, Ont. Upper Can. Coll., Toronto. St. Francis Xavier College. Tufts College, Mass. Allison University. Westmount Academy. Feller Inst., Grand Ligne. Manitoba College.
Roberts, Lawrence H Rosenbaum, J. Jack	Au Sable Forks, N.Y. Ottawa, Ont	Private Tuition
Shannon, W. Lloyd   Ship, Abe P	Vancouver, B.C Montreal	
Solomon, Edward  Steeves, Harold C., B.A  Steevart, John W  Stone, W. Ross  Sutherland, Thomas W.	Cote St. Paul, Q	Stanstead College. Montreal High School. Mt Allison University. St. Mary's High School. Vancouver College
†Tannenbaum, İsidore (I   Thompson, Allen E  Walcott, Edward J. O  Walker, Miles G  Walter, Arthur B	Coaticook, Q	Coaticook Academy. dos. Harrison College. Lachute Academy. Victoria College. Prince of Wales College
NAME. Allingham, John H., B., †Amant, Harry	ntistry)	Montreal, Q. Montreal, Q. Bridgetown, Barbados. Halifax, N.S. Granville, Yukon. Baybam Ont

<sup>\*</sup> Partial Student.

<sup>†</sup> Conditioned Student.

Double Course Student.
The figures (2), (3) or (4), 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.

### Home Address.

Bleasdell, William A	Fernie, B.C.
Rooth Gordon E	. Ottawa. Ont.
Boudroon Frank (†	. Farnnam Centre, Q.
Bourna Waslay	. Pollards, Barbados.
Deiman Tillman A	Victoria, B.U.
Provin David M	. Motherwell, Scotland.
Burton, William E	. Barbados.
Campbell, A. D	.Glencoe, Ont.
Camarball Harold A	Sherprooke, W.
Carruthers, Robert S. P.	North Bedeque, P.E.I.
Champion, Benjamin H	Summerside P.E.I.
Chisholm, Hugh G., B.A. (St. Francis Xavier)	Antigonish NS
Crawford, John W	Courtenay B.C.
Crease, Arthur L	Nelson BC
Culver, Cyrus W	Harrisville NY
Dakin, Warren A., M.A. (Mt. Allison)	Pugwash NS
Dakin, Warren A., M.A. (Mt. Amson)	Hawkeshury Ont
Doyle, Philip E Dunbar, D. Archibald.	Alma PEI
Dunbar, D. Archibald	Ottown Ont
Dunne, Gerald P	Fact Clifton O
Elliott, Robert	Gretne Men
Ewert, Carl, B.Sc. (Manitoba)	Prentice Wis
Falconer, Ernest H	Labefald Opt
Fraser, John R.	Demokrales Ont
Fraser, Wilbert G	Mantagal Ont.
†Frost, Percy J.	Wontreal, Q.
Furness, Arthur W.	vernon River Bridge, F.E.1
Gallagher, Joseph B	. Bath, N.B.
Gillespie, John H	. Morrisburg, Ont.
Gillis, Stephen H	. Indian River, F.E.I.
Glickman, Abraham (Dentistry)	. Montreal, Q.
Civiltoria Vincent II	Waterbury, Comm.
Hamilton, C. Dickinson	. Cornwall, Ont.
Havey, Harry B., B.A. (Acadia)	Digby, N.S.
Hawkins, Allan B	The Belle Estate, Boos.
Hepburn, Howard H	. Edmonton, Alta.
Hepburn, William G	. Stratford, Ont.
Herbert, Thomas A	Bridgetown, Barbados.
Hicks, Elbert R., B.A. (Mount Allison)	Upper Dorchester, N.B.
Hickson, Charles R., B.A. (Mt. Allison)	St. John, N.B
Holloway, E. C. Percy	Ottawa, Ont.
Hamitt Charles	. Guelph Ont.
Hutchison George W	. ESCOUL. OHL.
Irvon John	. Alexandria, Unt.
Jenkins, John S	Charlottetown, P.E.I.
Keine William I BA (Laval)	Brattleboro, Vt.
Keerney Garnet H	Rentrew. Ont.
+Labor John J	Willney Point, Mass.
Lavore Percy I.	Georgetown, P.E.I.
Locault I Horace	Ottawa. Ont.
Locke J Allan	Irena. Ont.
Lockwood, Ambrose L	Westport, Ont.

<sup>†</sup>Conditioned Student. || Double Course Student.

### HOME ADDRESS.

Logie, H. Burton, B.A. (Univ. of N.B.)	Chatham N B
McAlister, William J	Winning Man
Macaulay, Albert E	St. John N B
McBurney, Albert	Sawverville O
McCarthy, John A	St John N B
McDonell, Donald S. H. (Dentistry)	Alexandria Ont
McEachern, Malcolm T	Fonolon Fells Ont
McGibbon, Roy H	Montroel O
Mackintosh, Arthur E	Pugwagh N C
Maemillan, Hugh	Vancouven P.C
McMillan, Stanley	Igana's Harbour M.C.
McMillan, W. Herbert	Proglessille Out
McNaughton, Murray W. A	Mossessia Casl-
MacNeill, A. L. Hodge	
MacPhee, John A., B.A. (Laval)	Charlottetown, P.E.I.
Malcolm, Robert B	
Marchant, Harold B	Victoria, B.C.
Marcuse, Otto, B.A.	Westmount, Q.
Moodie, Alexander R	Perth, Ont.
Morse, D. Garnet	Lawrencetown, N.S.
Mundie, Gordon S., B.A	Westmount, Q.
O'Brien, John F	Fall River, Mass.
O'Callaghan, Robert H. L	East Sheen, Surrey, Eng.
Park, John E	New Glasgow, N.S
Peabody, Harry S	Mansonville, Q
Piper, John O., A.B. (Bates)	Bingham, Me.
Raphael, Howard M	Ottawa, Ont.
†Reed, Everett H	Whitman, Mass
Richardson, James W	
Roberts, M. Chesley	
Robinson, George	Concord, N.H.
Robinson, Thomas A	
Scott, George O	Ottawa, Ont.
Shephard, Harold M	London, Ont.
Sihler, George A	Litchfield, Ill.
Sinclair, Fred. D	St. Stephen, N.D.
Speer, Robert B	Danville, Q.
Stewart, Archibald	South Indian, Ont.
Stewart, John D	Calgary, Alta,
Strudwick, Henry T	Duncans, Jamaica.
Taylor, S. Wesley, B.A. (Mt. Allison)	Taylor Village, N.B
Vigneux, Maurice J	Nelson, B.C.
Vigneux, Maurice J	Hamilton, Bermuda
Wilson, George T	Vancouver, B.C.
Youland, William E., B.A. (Bowdoin)	Biddeford, Me.
THIRD VEAR	

### THIRD YEAR.

Adcock, John P	 Veymouth, Eng.
Allen, J. A. Lorne	 Hallville, Ont.
Anderson, William M.	 Iidgic, N.B.
Archibald, David W	 North Sydney, C.B.

<sup>†</sup> Conditioned Student. || Double Course Student.

NAME.	Home Address.
Atkinson, Paul McL	Albert, N.B.
Auld, Frederick M., B.A.	Cove Head, P.E.I.
Bailey Cameron V	New Glasgow N.S.
Ballon, David H., B.A	Montreal Q
Barnhill, Harold B	Two Rivers N.S.
Benoit, Hector W	Ottowa Ont
Bramley-Moore, Alfred	Montreal O
Bugbee, Raymond G., Ph.B. (Brown)	N Attleboro Mass
Cameron, John R	Charlottetown PEL
Carnell, Arthur H	St John's Nfld
Carney, Michael J., B.A. (Dalhousie)	Holifay NS
Churchill, Lewis P	Dartmouth NS
Clarke, T. L. Evelyn	St John's Barbados
Cody, Harry C	Contraville N B
Conn, Leighton C.	St Catharinas Ont
Cotton, Thomas F., B.A.	Compositio O
Cotton, Inomas F., D.A.	Cowansvine, Q.
Cox, Charles G.	Hull, Q.
Craig, Hector M	Kenmore, Ont.
Cron, Charles	Harbor Grace, Nnd
Cross, C. Ernest, B.A	Montreal, Q.
Curry, Wilfred A., B.A. (Dalhousie)	Halliax, N.S.
D'Avignon, F. Joseph	Au Sable Forks, N.Y.
DeWitt, Avery E., B.A. (Acadia)	Wolfville, N.S.
Donahue, Hugh F.	Leominster, Mass.
Dorsey, Joseph W	Charlottetown, P.E.
Dunlop, Frederick T.	St. John, N.B.
Dunnet, Henry W.	Ottawa, Ont.
Ewing, William T.	Montreal, Q.
Fairbairn, J. F. Roger.	Bordeaux, Q.
Foster, Lowell S	Providence, R.1.
Fraser, Maxwell J	Stratford, Ont.
Froomess, Leo E	Montreal, Q.
Funk, Edwin H	Rossland, B.C.
Gillis, John J. A., B.A., (St. Dunstan's)	Miscouche, P.E.I.
Graves, C. Allan	
Greenleese, J. Carey	Ottawa, Ont.
*Hadley, Henry, B. Sc	Montreal, Q.
Hale, G. Carleton,	London, Ont.
Harry, A. Cecil.	Westmount, Que
Hawkshaw, Edward P. (Dentistry)	Chilliwack, B.C.
*Jacques, Harry M., M.D.	Halifax, N.S.
Keay, Arnold	New Glasgow, N.S.
Kelly, Clement M., B.A. (Univ. of N.B.)	Springfield, N.B.
Lafontaine, Ulric L., B.L. (Laval)	Manchester, N.H.
Lannin, J. C. Justin	South Mountain, Ont.
Lawrence, Watson A	Lisbon, N.Y.
Lawson, George C	Charlottetown, P.E.I
Leys, W. Murray	Brantford, Ont.
Lindsay, Lionel M.	Montreal, Q.
McCallum, John S., B.A	Smith's Falls, Ont.
McCracken, William A	Cornwall, Ont.
McEwen, S. Cameron	Vancouver, B.C.
Maclean, Charles G. G.	Victoria, B.C.
Manning, Gerald M	Bridgetown, Barbados.

<sup>\*</sup> Partial Student.

## HOME ADDRESS.

Miller, Robert L	Montreal, Q.
*Murphy, Thomas J. F	. Halifax, N.S.
Murray, Joseph M	. Marmora, Ont.
Ower, John J., B.A	Smith's Falls, Ont.
Palmer, John E., B.A. (Univ. of N.B.)	. Central Hampstead, N.B.
Paterson, John H	Almonte, Ont.
Patton, William D	
Read, Edward S., B.A. (Bishop's)	.St. Felix de Valois, Q.
Richardson, Robert W., B.A. (Dartmouth)	Lisbon, N.H.
Scott, John B	
Sharp, Claude E	Spanish Town, Jamaica,
Shillington, Richard N. W	City View, Ont.
Smith, Bruce S	Boston, Mass.
Stewart, Alexander	
Thomson, J. Oscar	
Turnbull, Frederick M	Bear River, N.S.
Turner, John S	
Underhill, Thomas B	Weyburn, Sask.
Wallace, Irwin	Belleville, Ont.
Walsh, James J.	
Worley, Ernest G.	Haley's Station, Ont.

## FOURTH YEAR.

Anton, Duncan L. S	Ireland.
Arbuckle, John W	Summerside, P.E.I.
Arton, Ogilvie A	Bailev's Bay, Bermuda,
Baldwin, William J., A.B. (Holy Cross College)	Ogdensburg, N.Y.
Ballem, John C., B.A. (Dalhousie)	Mt. Albion, P.E.I.
Barry, J. Leonard	
Bechtel, Arthur D	
Bennett, Samuel J	
Blanchet, Sidney F	
Cameron, George L. (Dentistry)	
Campbell, Donald G., B.A.	
Campbell, John de L	
Carrington, Everard A. S., M.D	
Chipman, R. Leverett, M.A. (Acadia)	Kentville, N.S.
Clarke, Frederick C.	
Clarke, James C., B.A. (Laval)	Nelson, B.C.
Craig, Delmer Allan	Kemptville, Ont.
Daigneau, Paul L. (Dentistry)	Waterloo, Q.
Dalton, James T	St. John, N.B.
Davis, Daniel W	Brockville, Ont.
Davis, Stephen	Montreal, Q
Dewar, Roderick D	Glen Sandfield, Ont.
Dexter, Roderick B., B.A. (Acadia)	Wolfville, N.S.
Donahoe, Robert A	
Drury, W. Herbert	Barrie, Ont.
Fairie, J. Arthur	Montreal, Q.
Fenton, George S	Ottawa, Ont.
Freedman, Abraham	Montreal, Q.

<sup>\*</sup> Partial Student.

## Home Address.

Fyfe, Alexander M	Kingston, Jamaica.
Garcelon Harold W A B (Bowdoin)	Lewiston, Me.
Gardiner Alfred E	McAdam Jct., N.B.
Goodwin, Burton E	Amherst, N.S.
Hand, William T	Montreal, Q.
Hils, H. Oswald, B.L. (Laval) (Dentistry)	Woonsocket R.I
Holbrook, Charles E.	Ordensburg N Y
Hunter, W. Bruce	Vanceboro Me
Jenkins, Willard M	Downovville N B
Johnson, Arthur L., B.A. (Mt. Allison)	Windsor NS
Johnson, Arthur L., B.A. (Mt. Allison)	Wantagal O
Kaufman, Joseph.	Montreal, Q.
Kelley, J. W	Detroit, Mich.
Kennedy, Alan H. N	Macleod, Alta.
Kirby, William P. P., B.A. (Mt. Allison)	Gagetown, N.B.
Lees, Frederick W	Perth, Ont.
London Jenson F	Wickham, N.B.
Lovering, James E	Coldwater, Ont.
Lynch, John G. B	Almonte, Ont.
MacArthur, Clarence O	Summerside, P.E.I.
McBride, Walter P	Central Bedeque, P.E.I
MacCordick A Howard	North Gower, Ont.
Macdonell, Donald F., B.A. (St. Francis Xavier)	Port Hood, N.S.
McDonald, Ronald H	North Bedeque PEI
McGibbon, James A	Forest Ont
McGrath, Joseph P., B.L. (Laval)	Tignish PEI
McKay, William H	Ottown Opt
McKay, William D	Clamant DEI
MacMillan, William J. P.	Ciermont, F.E.I.
Martin, Arthur A	Fingal, Ont.
Martin, Francis W. (Dentistry)	Aylmer, Q.
Morin, J. H. Gaston, B.A. (Laval)	St. Hyacinthe, Q.
Moses, Harry C	Caledonia, Ont.
Martin, Francis W. (Dentistry).  Morin, J. H. Gaston, B.A. (Laval).  Moses, Harry C.  Murphy, Giles B., B.A. (Queen's)	Brockville, Ont.
Nagle, Francis W. Nordbye, Frithjof A	Montreal, Q.
Nordbye, Frithjof A	Granite Falls, Minn.
Ortenberg, Samuel	Quebec, Q.
Perrigard Ernest N	Montreal Q
Powell, Ralph E., B.A. (Mt. Allison) Purdy, Charles E.	St. John, N.B.
Purdy, Charles E	Bear River, N.S.
Read, George C., B.A. (Dalhousie)	Summerside, P.E.1
Rocheleau Walter C A B (Holy Cross College)	Woonsocket, R.I.
Ross, Colin E	Westmount O
Sawyer, Carl D., A.B. (Bates)	Lewiston Me
Shanks, George, B.A.	Howiek O
Shewan, Douglas R	Wastmount O
Simpson, James S	Marmard Ont
Simpson, James S	Maynard, Oht.
Soley, Lawson A	
Sparks, John J	St. John's, Nnd.
Sweeney, John L., B.A. (St. Anselm's)	Dover, Mass.
Tannenbaum, David	Montreal, Q.
Tanton, Edwin T	St. Eleanor's, P.E.I.
Taylor, Thomas H	Cumberland Mills, Q.
Thomas, Frank H., B.A. (Acadia)	Somerset, N.S.
Tracy, William L., A.M. (Univ. of N.B.)	Hartland, N.B.
	And the second s

## NAME. HOME ADDRESS.

Wallace, Carl T	Eureka, Ca.l
Walsh, John P., B.A. (Laval)	. Quebec, Q.
Waugh, Oliver S	
Wilkins, Frederick F	Montreal, Q.
Wilson, Karl M	Madoc, Ont.
Wright, Robert Percy	Montreal, Q.
Yeo, Ira J	Charlottetown, ,P.E.1.

## FACULTY OF LAW.

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T	1	R	S	T	Y	E	A	R.	

NAME.	HOME ADDRESS.
Alexander, Maurice.  Brock, Eustace A *Cameron, Alexander G. Cousins, George V., B.A. Cushing, Dougall, B.A. Goodstone, Isidore A. Heward, Chilion G., B.A. Jacobs, Lyon Jamieson, John S., B.A. (Toronto). Lamert, Joseph O. MacCallum, Orick B., B.A. McGibbon, Philip G.  McGoun, Archibald F. MacNaughton, John, B.A. (New Brunswick) Penny, E. Goff T., B.A. Tetreau, Maurice Tulk, A. Edward	Westmount, Q Montreal, Q Montreal, Q Montreal, Q Montreal, Q Clyde, Ont Montreal, Q Montreal, Q Montreal, Q Westmount, Q Black River, N.B Montreal, Q.
SECOND YEAR.	
Barclay, Gregor, B.A. DeLorimier, Jules. Dutaud, Gustave, B.A. Gibb, Robertson W., B.A. Hackett, John T., B.A. (Laval) Hing, Peter Mathieu, L. J. Armand *Munn, William C., B.A. Savard, Alfred.	. Montreal, Q Montreal, Q Montreal, Q Stanstead, Q Victoria, B.C Montreal
THIRD YEAR.	
Ballon, Isidore, B.A. Callaghan, Frank Cameron, A. Wylie, B.A. Hyde, G. Gordon, B.A. Jenkins, Joseph, B.A. McMurtry, Rennie O., B.A. Millman, Lazarus, Pelletier, Alexis D., B.A. Richards, Joseph A. T. Stewart, Thomas S., B.A. Stewart, William, B.A.	Montreal, Q. Montreal, Q. Westmount, Q. Montreal, Q. Montreal, Q. Montreal, Q. Montreal, Q. Nelson, B.C. Montreal, Q.

<sup>\*</sup>Partial Student. ||Double Course Student.

## THE GRADUATE SCHOOL.

PROCEEDING TO THE DEGREE OF MASTER OF ARTS.

Call, Frank O., B.A. (Bishop's)	Brome Q
Coucing Coorgo V BA	Westmount
Cousins, George V., B.A.	
Gray, Edwin H., B.A	. Montreal West, Q.
Harrison, Ralph D., B.A	. Montreal, Q.
Hayden, Amy J., B.A	. Montreal, Q.
Huxtable, Maggie, B.A	. Montreal, Q.
Healey, Walter J., B.A	Montreal, Q.
Jamieson, John S., B.A. (Toronto)	.Clyde, Ont.
McCrimmon, James R., B.A. (Queen's)	. Vankleek Hill, Ont.
MacDonald, Dalraddy L., B.A	Montreal, Q.
Naylor, Kenneth R., B.A	Shawville, Q.
Parker, David W., B.A	. Bedford, Q.
Rogers, David B., B.A.	. Watford, Ont.
V Rorke, Mabel L., B.A	
Ryan, Esther L., B.A	Stanstead, Q.
Salt, A. E. W., B.A	
Smith, Charles A., B.A	
/ Smith, Ella L., B.A	
Vincent, Irving O., B.A	

#### PROCEEDING TO THE DEGREE OF MASTER OF SCIENCE.

d.
iana.

#### PROCEEDING TO THE DEGREE OF DOCTOR OF PHILOSOPHY.

Allen, T. B., M.A	
Bancroft, J. Austen, M.A	Montreal, Q.
Boehner, Richard S., M.A	Paradise, N.S.
Boyle, Robert W., M.Sc.	Carbonear, Nfld.
Ince, J. W., M.A	Montreal, Q.
Johnson, Fred. M. G., M.Sc.	Montreal, Q.
Kirsch, Simon, M.A	Montreal, Q.
McLeod, Miss A. L. M.Sc	Glace Bay, N.S.

## AFFILIATED COLLEGES.

### McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

(In Arts).

#### FIRST YEAR.

Alexander, Irene B.
Armstrong, Martha M.
Beard, Eva F.
Boak, Eric W.
Boyd, James B.
Boyes, David A.
\*Brown, Norman
\*Busteed, Daniel F.
Carr, Elsie N.
Crawford, Mary J.
DesBrisay, Eileen
Dixon, Margaret
Domoney, Vera L.
Duke, Lilian M.
†Elliott, Hector
Farrell, Gordon
†Fleming, William R.
Grant, Harold D.
†Harper, Lulu F.
Hosang, Myrtle
Knowling, Albert J.
\*Leckie, John A.
Letvinoff, Lena

Bunt, William P. McLellan, Robert B. McWhinney, Olive Manning, Zenias V. Meadows, Stanley D.

Lindsay, Gordon †Macfarlane, Margaret E. Mackenzie, C. Frances Macleod, Hazel E.
Macleod, John V.
McKeen, Mabel H.
†MacMillan, William P. \*Ono, Zentaro Paterson, Edith L. Selman, Gordon S. Shaw, Elizabeth F. Smith, Margaret A. Smith, Philip P. Sparling, Ellen M. Stewart, Carroll A. Stewart, Edith L. Stone, Mabel W. Taylor, Grace A. Turnbull, John R. Underhill, Ella M. Willett, Jean T. \*Wilmot, Lemuel A. Wilson, Ray H.

### SECOND YEAR.

Phipps, Roy G. Skaling, A. Clifton Stone, Frances M. ‡Thomas, Edith O. Thomas, Owen J.

## (In Applied Science.)

## FIRST YEAR.

†Brydone-Jack, Herbert D. \*Dunning, Reginald \*Fournier, Harry Galloway, John D. †Henderson, Roy G.
Mackinnon, Duncan A.
Munro, Nicholas D.
†Rogers, Harrison W.
†Underhill, Frederic C.

#### SECOND YEAR.

Gill, Peter C.

‡Irwin, Gifford M.

‡†Rolston, Frederic J

‡†Scott, James H.

‡Shearer, Frederic C.

Whyte, Harold E.

<sup>&</sup>quot;Anderson, Goldie F. ††Charters, Clarence R. Eldridge, Gardner ††Galloway, Charles G. Gibbins, Gilbert G.

<sup>\*</sup> Partial Student. † Conditioned Student. ‡ Conditioned Undergraduate.

#### VICTORIA COLLEGE.

(In Arts).

FIRST YEAR.

Beckwith, Harold Blankenbach, Marion Chandler, Rena Coates, Bessie Dunn, Frank †Erskine, Eunice Jones, Julia McKillican, Nehal'nia McNaughton, Jean Papke, Erna †Roberts, Jean

SECOND YEAR.

tGreen, Cecelia

Holmes, Cuthbert

#### ALBERTA COLLEGE.

(In Arts).

FIRST YEAR.

Hanson, Peter C. \*Ritson, Claud W. \*Roper, Leona \*Walker, Olive Wright, John P.

<sup>\*</sup> Partial student † Conditioned student. ‡ Conditioned Undergraduate.

## SUMMARY.

Students in Law. Students in Arts, McGill College:—  Men—Undergraduates. Conditioned. Partial Women— Undergraduates. Conditioned. Partial.  Partial Students taking special courses for Teachers. Students in Arts, McGill University College of B.C. Students in Arts, Victoria College. Students in Arts, Alberta College.	169 9. 71 83 5 45 130 58 13 5	588	
Students in Applied Science:  Undergraduates. Conditioned. Partial. Students in Applied Science, McGill University College of B.C. Students in Medicine —	390 37 58 20	505	
Undergraduates	324		
Conditioned.	17		
Partial	11		
Students in the Graduate School		352 45 —	6W
Deduct repeated in different faculties		1527 46	
Total		1481	
Increase over attendance during the Session 1906–1907		144	

## UNIVERSITY AND GRADUATES' SOCIETIES.

## The Students' Society of McGill University.

(Officers 1908-1909.)

President—John T. Hackett, Law '09.
Vice-President—To be elected.
Treasurer—To be elected.
Secretary—To be elected.

### Executive Council.

J. T. Hackett, Law '09, Chairman.

A. G. McGougan, (President, Arts Undergradutes' Society)

J. A. Delancy, Sci., '09, (President, Applied Science Undergraduates' Society)

President elect of Undergraduates Society in Medicine President elect of Undergraduates Society in Law Guy M. Drummond, Arts '09, President, The McGill Union W. J. Galbraith, Sci. '09, President the Rugby Football Club, President elect of the Hockey and Skating Club H. W. Wood, Sci. '09, President, The Track Club

#### The McGill Union.

(Officers 1908-1909.)

Honorary President—A. Falconer, Esq., K.C. President—Guy M. Drummond, Arts '09 Vice-President—Harold S. Johnston, Sci. '09. Secretary—Dougall Cushing, Law '10.

## Undergraduates' Literary and Debating Society.

(Officers 1908-1909.)

Honorary President—Principal Peterson.
President—J. T. McNeil, Arts '09.
Vice-President—Newton Kendall, Arts '10.
Secretary—A. R. W. Plimsoll, Arts '09
Asst.-Secretary—W. M. Cherry, Arts '11.
Treasurer—C. L. Cantley, Sci. '09.

## Undergraduates' Society in Arts.

(Officers 1907-1908.)\*

President—W. R. L. Shanks, '08.

Vice-President—F. E. Hawkins, '08.

Secretary—H. B. Maclean, '08.

Treasurer—L. G. Dennison, '09

<sup>\*</sup> The election of officers is held at the beginning of each session.

Owens.

## Undergraduates' Society in Applied Science.

(Officers 1908-1909.)

President—J. A. Delancy, '09.
Vice-President—G. W. Smith, '09.
Secretary—A. C. G. McLeod, '10.
Treasurer—J. E. Daubney, '10.
Reporter—W. H. Powell, '09.
Second Year Representative—C. E. Richardson, '11.

## Undergraduates' Society in Medicine.

(Officers 1907-1908.)\*

President—W. P. Kirby, '08. Vice-President—R. H. MacDonald, '08. Secretary—J. S. McCallum, '09. Asst.-Secretary—T. A. Robinson, '10. Treasurer—J. J. Ower, '09.

## Undergraduates' Society in Law.

(Officers 1907-1908.)\*

President—R. O. McMurtry, '08. Vice-President—J. T. Hackett, '09. Treasurer—G. G. Hyde, '08. Secretary—O. B. McCallum, '10.

#### Cercle Français.

(Officers 1907-1908.)\*

Honorary President—Sir William Macdonald.
President—O. S. Tyndale, Arts '08.

1st Vce-President—I. E. Bruneau, Med. '11.
2nd. Vice-President—A. R. W. Plimsoll. Arts '00.
Secretary-Treasurer—E. G. T. Penny, Law. '10.
Committe—Arts, R. E. Fisher, '09; Law. A. D. Pelletier, 09; Science, R. Gibb, '09; Graduate Member, H. S. Williams, B.A., B.C.L.

## Physical Society.

(Officers 1907-1908.)\*

President—Dr. H. T. Barnes.

Vice-President—Professor J. Cox.

Secretary—R. W. Boyle, M.Sc.

Committee— Dr. J. W. Walker, Dr. A. Stansfield, Dr. R. B.

<sup>\*</sup> The election of officers takes place at the commencement of each session.

## Chemical Society.

(Officers 1907-1908.)\*

President—R. S. Boehner, M. A.
Vice-President—Dr. J. W. Walker.
Secretary-Treasurer—Professor N. N. Evans.
Exècutive Committe—The above-mentioned officers and Dr. Barnes,
Dr. Stansfield, and Dr. McIntosh.

## Medical Society.

(Officers 1908-1909.)

Honorary President—Dr. Blackader. President—W. A. Lawrence, '09. Vice-President—L. M. Lindsay, '09. Secretary—W. G. Hepburn, '10. Asst.-Secretary—W. R. Stone, '12. Treasurer—H. B. Havey, '10. Pathologist—E. H. Funk, '09.

## Mining Society.

(Officers 1908-1909.)

Honorary President—Dr. J. B. Porter.
President—H. H. Yuill, '09.
Vice-President—H. B. Gillis, '09.
Secretary-Treasurer—E. Penney, '10.

#### Historical Club.

(Officers 1908-1909.)

Honorary President—Dr. C. W. Colby.
President—C. S. LeMesurier, Arts '09.
Vice-President—M. L. Packard, Arts '09.
Secretary—J. L. Kingston, Sci. '10.
Treasurer—F. H. Stanton, Arts '09.
Committee—Dr. Colby, Dr. Fryer, J. A. Richardson, Arts '04.

## Delta Sigma Society.

(Officers 1908-1909.)

Honorary President—Miss Cameron, M. A.
President—Miss J. McDonald, '09.
Vice-President—Miss Clare Miller, '10.
Secretary-Treasurer—Miss M. Paterson-Smyth, '11.
Committee—Miss F. D. Willis, '09; Miss L. Plaisted, '10; Miss A. Schafheitlin, '11.

<sup>\*</sup>The election of officers is held at the commencement of each session.

#### Societe Française.

(Officers 1908-1909.)

Honorary President—Mlle. Milhau.
President—Miss Alice Massé, '09.
Vice-President—Miss Edith E. Bennetts, '10.
Secretary-Treasurer—Miss M. Paterson-Smyth, '11.
Committee—Miss F. M. Wilson, '09; Miss K. T. Trenholme, '10; Miss A. Schafheitlin, '11.

## Young Men's Christian Association of McGill.

Membership.—The Membership of the Association consists of graduates and students of McGill University, or of the affiliated Colleges.

All are welcomed as Associate members; the active membership

comprises those who are church members.

The home of the Association is Strathcona Hall, which in addition to affording ample accommodation for the work of the Association as a whole, provides residence for sixty men.

Full particulars regarding the work of the Association are given in the annual Hand Book, and will also be supplied by the General

Secretary of the Association.

#### (Officers 1908-1909.)

Honorary President—Dr. Alex. Johnson.
President—E. B. Rider, B.A., Sci. '09.
1st Vice-President—F. M. Auld, B.A., Med. '09.
2nd Vice-President—F. H. Stanton, Arts '09.
Treasurer—W. H. Gordon, Arts '09.
Assistant-Treasurer—D. L. Derrom, Sci. '10.
Recording-Secretary—J. S. Jamieson, B.A., Law '10.
General Secretary—M. G. Brooks, B. A.
Associate Secretary—W. G. Brown, B.Sc.

#### CHAIRMEN OF COMMITTEES.

Bible Study—G. T. Wilson, B.A., Med. '10. Finance—W. H. Gordon, Arts '09. House—F. H. Stanton, Arts '09. Library—A. C. G. McLeod, Sci. '10. Membership—D. L. Derrom, Sci. '10. Missionary—F. M. Auld, B.A., Med. '09. Religious Meetings—C. A. Hale, Arts '09. Social—H. A. Campbell, Med. '10. New Students—M. G. Brooks, B.A.

STUDENT REPRESENTATIVES TO THE ADVISORY COMMITTEE.

O. B. McCallum, B.A., Law '10. R. E. Fisher, Arts '00.

# Young Women's Christian Association of McGill University.

(Officers 1908-1909.)

Honorary President—Mrs. Plumptre.
President—Miss Gertrud Schafheitlin, '09.
Vice-President—Miss Ethel G. Ramsay, '10.
Corresponding Sec'y—Miss Annie R. Gray, '09.
Recording Secretary—Miss Violet M. McEwen, '11.
Treasurer—Miss F. Thelma Davies, '11.
Reporter—Miss B. Ruth Mount, '10.

#### The Columbian Club.

The Columbian Club, designed to promote good fellowship and social intercourse among Catholic students and graduates of the University, has Club Rooms in the Inglis Building, 485 St. Catherine St. West. Open day and evening.

(Officers 1908-1909.)

President—H. Wright Benoit, Med. '09.
Vice-President—David E. Manny, Sci. '09.
Recording-Secretary—John T. Hackett, Law '09.
Corresponding Sec'y—John A. MacPhee, B.A., Med. '10
Treasurer—John F. O'Brien, Med. '10.
Chaplain—Rev. Gerald J. McShane.

#### Amateur Athletic Association.

(Officers 1908-1909.)

President—G. W. Smith, Sci. '09. Vice-President—H. Slingsby, Sci. '09. Secretary—O. B. McCallum, Law '10.

## Royal Victoria College Athletic Club.

(Officers 1908-1909.)

Honorary President—Miss Lichtenstein.
Hon. Vice-President—Miss Cartwright.
President—Miss A. L. Mitchell, '00.
Vice-President—Miss E. Cruickshank, '10.
Secretary-Treasurer—Miss G. Brown, '11.
Hockey Manager—Miss R. A. Norris, '00.
Tennis Manager—Miss F. M. Wilson, '09.
Basket Ball Manager—Miss E. E. Elliott, '09.

## Rugby Football Club.

(Officers 1908-1909.)

President—W. J. Galbraith, Sci. '09.
Vice-President—R. H. Winslow, Sci. '09.
Secretary—Newton Kendall, Arts '10.
Treasurer—W. L. L. Cassels, Arts '10.
Manager—P. D. Wilson, Arts '10.
Captain—Vaughan Black, Med. '10.

#### Association Football Club.

(Officers 1908-1909.)

Honorary President—Professor Mackay.

President—F. G. M. Williams, Sci. '10.

Vice-President—R. H. L. O'Callaghan, Med. '10.

Secretary—H. Slingsby, Sci. '10.

Treasurer—R. W. Scott, Sci. '10.

Captain—F. G. M. Williams, Sci. '10.

#### Track Club.

(Officers 1908-1909.)

Honorary President—Dr. Elder. Honorary Treasurer—Dr. Harvey. President—H. W. Wood, Sci. '09. Vice-President—E. S. Blanchard, Sci. '10. Treasurer—K. W. Dowie, Sci. '10. Secretary—J. S. Macleod, Med, '12.

## Hockey and Skating Club.

(Officers 1907-1908.)\*

Honorary President—Dr. J. D. McCallum President—W. A. Mather, Sci. '08. Vice-President—F. A. Patrick, Arts '08. Treasurer—W. L. L. Cassels, Arts '10. Secretary—A. F. Baillie, Sci. '09. Manager—C. E. Brooks, Sci. '08.

#### Basket Ball Club.

(Officers 1907-1908.)\*

Honorary President—Dr. Harvey.
President—O. B. McCallum, Law '10.
Vice-President—H. T. Douglas, Arts '10.
Secretary-Treasurer—H. M. Shephard, Med. '10.
Manager—G. A. McGuire, Sci. '08.
Asst.-Manager—G. W. Smith, Sci. '09.
Captain—John H. Forbes, Sci. '08.

<sup>\*</sup>The election of officers is held at the commencement of each session.

## Boxing Club.

(Officers 1908-1909.)

Honorary President—Professor W. Muir Edwards.

President—A. O. McMurtry, Arts '10.

Vice-President—T. W. Sutherland, Med. '12.

Secretary—S. M. Sproule, Sci. '10.

Treasurer—J. E. Bissett, Arts '11.

#### Rifle Association.

(Officers 1908-1909.)

Honorary President—Dr. Gregor.

Hon. Vice-Presidents—Colonel Burland, Professor Durley,
Major Mitchell.

Honorary Captain—Professor Nobbs.
Captain—J. A. Delancy, Sci. '09.

1st Lieutenant—D. Cushing, Law '10.
2nd Lieutenant—G. H. Burbidge, Sci., '09.

Squad-Sergeants—A. C. Simpson, Sci. '10; D. D. Freeze, Med. '12;
H. S. Peabody, Med. '10; W. G. Irving, Arts '11.
Secretary-Treasurer—S. M. Sproule, Sci. '10.

## Fencing Club.

(Officers 1908-1909.)

Honorary President—Principal Peterson.
President—H. Slingsby, Sci. '09.
Secretary-Treasurer—S. Brunton, Sci. '10.
Committe—C. S. Burgess, H. Hohlenberg, H. Paulsen.

## Swimming Club.

(Officers 1908-1909.)

Honorary President—Dr. H. T. Barnes. President—P. H. Skelton, Sci. '10. Vice-President—Q. J. Maltbv. Sci. '10. Secretary—A. A. Young, Sci. '10. Treasurer—J. B. DeHart, Sci. '10.

## Lawn Tennis Club.

(Officers 1908-1909.)

Honorary President—Dr. Colby.
President—Mr. LeMesurier.
Vice-President Mr. Hanna.
Secretary-Treasurer—Mr. H. S. Williams.
Committee—Messrs. Bronson, Brown, Smith, Ramsay and Cotton.

## Wrestling Club.

(Officers 1908-1909.)

Honorary President—W. J. Jacomb. President—W. M. Dennis, Sci., '09 Vice-President—T. E. Gilchrist, Sci. '10. Secretary—A. N. Fraser, Sci., '09. Treasurer—W. H. Turner, Sci., '11.

## Harriers' Club.

(Officers 1907-1908.)\*

Honorary President—Prof. H. M. Mackay. President—F. E. Hawkins, Arts '08. Vice-President—A. M. Lindsay, Sci. '09. Secretary-Treasurer—Donald Ross, Sci., '08. Captain—Archie Kerr, Sci., '08.

## Glee and Mandolin Club.

(Officers 1907-1908.)\*

President—D. Manney, Sci.
Vice-President—A. Merrill. Sci.
Secretary—C. A. Hale, Sci.
Business Manager—R. D. Harrison, B.A.
Committee—H. B. Logie, W. K. Wyman, M. G. Brooks.

#### Cricket Club.

(Officers 1908-1909.)

Hon. President—The Right Hon. Lord Strathcona. Hon. Vice-President—His Honor Judge Dunlop. President—Dean Movse.

Vice-President—A. R. Oughtred, K.C. Captain—J. Blizard.

Vice-Captain—A. C. Wood.

Secretary-Treasurer—E. B. Jones.

Assistant Secretary-Treasurer—D. S. Gough.

## Western Club of McGill University.

This club has for its objects the furthering of the interests of McGill in the four western provinces and the helping of new students from these provinces.

Students from Manitoba, Saskatchewan, Alberta, or British Columbia coming to McGill for the first time are requested to communicate with the secretary of the Club at Strathcona Hall, Montreal.

\* The elections are held at the commencement of each session.

#### (Officers 1908-1909.)

Honorary President—Dr. H. M. Tory.

President—S. C. McEwen, Med. '09.

Vice-President—F. S. Fowler, Sci. '10.

Secretary-Treasurer—C. H. Fox, Sci. '09.

Asst.-Treasurers—E. Funk, Med. '09, F. G. C. Wood, Arts '10.

Executive—W. L. Shannon, British Columbia, Med., '09.; C. G.

Childe, Alberta, Sci., '11; G. H. P. Walker, Saskatchewan, Sci., '11;

T. B. Underhill, Manitoba, Med., '09.

## Alumnae Association of McGill University.

(Officers 1908.)

President—Isabel E. Brittain, B.A.

Vice Presidents—Susan Cameron, M.A.; E. L. McLeod, B.Sc.;

Bella Marcuse, M.Sc.; E. Hurlbatt, M.A.

Recording Secretary—A. Muriel Wilson, B.A.

Asst. Recording Secretary—Margaret Brodie, B.A.

Corres. Secretary—Eleanor Tatley, B.A.

Asst. Corres. Secretary—Mary Eaton, B.A.

Treasurer—Rosebud Michaels, B.A.

Asst. Treasurer—Mabel King, B.A.,

## Ottawa Valley Graduates' Society.

(Officers 1908.)

President—D. B. Dowling, B.A. Sc.

1st Vice-President—G. C. Wright, B.A., B.C.L.
2nd Vice-President—W. Bell Dawson, M.A., D.Sc.
3rd Vice-President—G. A. Young, M.Sc., Ph.D. (Yale).

Treasurer—A. S. McElroy, M.D.

Secretary—J. A. Robert, B.A. Sc., Geological Survey, Ottawa.
Council—Dr. A. W. Harris, Dr. H. M. Ami, Dr. J. F. Craig,
Dr. E. A. McTaggart, Mr. M. F. Connor, B.A.Sc.

## New York Graduates' Society.

(OFFICERS 1908.)

President—Wm. Ferguson, M.D.

1st Vice-President—George Massey.
2nd Vice-President—R. T. Irvine, M.D.

Secretary—Gordon Gibson, M.D., 166 State St., Brooklyn, N.Y.

Treasurer—W. Lincoln Bell, D.V.S.

Governors—Class of 1909, J. G. Saxe, B.A., LL.B. (Columbia);
H. J. Schwartz, M.D.; Class of 1910, H. N. Vineberg, M. D., R.A.

Gunn, B.A.Sc.; Class of 1911, F. T. H. Bacon, B.A.Sc., F. H. Miller.

Miller.

Non-Resident Councillors-Prof. The Rev. J. C. Bracq, M.A. (Vassar College, N.Y.); The Rt. Rev. J. D. Morrison, M.A., D.D.

(Bishop of Duluth; W. B. Gibson, M.D. (Huntington, N.Y.); Rev. Donald Guthrie, B.A., D.D. (Baltimore, Md.); R. Tait Mackenzie, B.A., M.D. (Univ. of Penna., Philadelphia); J. B. Harvie, M.D., C.M., (Troy. N.Y.).

## New England Graduates' Society.

President-Arthur E. Childs, M.Sc. (Boston, Mass.). Ist Vice-President—George A. Fagan, M.D. (North Adums, Mass.).

2nd Vice-President—Ambrose Choquet, B.C.L. (Central Falls, R.I.).

3rd Vice-President—H. Holton Wood, B.A. (Boston, Mass.).

Secretary-Treasurer—Joseph Williams, M.D. (12 Bloomield Street,
Dorchester, Mass.).

Councillors—T. G. McGannon, M.D. (Lowell, Mass.); Miles Martin, M.D. (Boston, Mass.); W. W. Goodwin, M.D. (East Boston, Mass.); R. T. Glendenning, M.D. (Manchester-by-the-Sea, Mass.); Joseph C. Pothier, M.D. (New Bedford, Mass.); J. G. Pfersick, D.V.S. (Shelburn Falls, Mass.).

## McGill Alumni Association of Chicago.

(OFFICERS 1908.)

President-Kenneth Moodie, B.A.Sc. 1st Vice-President-Rev. James A. Craig, M.A., Ph.D. 2nd Vice President-Norman Kerr, M.D. Secretary-Treasurer-Andrew Stewart, M.D., 464 W. Adams St., Chicago, Ill. Councillors-S. C. Burland, M.D., Charles H. Long, M.D., John Ryan, D.V.S.

## McGill Graduates' Society of Honan, China.

(Officers 1907.)

President-Wm. McClure, B.A., M.D. Vice-President—P. C. Leslie, M.D. Secretary-Treasurer—W. J. Scott, B.A., M.D.

## McGill Graduates' Society of Manitoba.

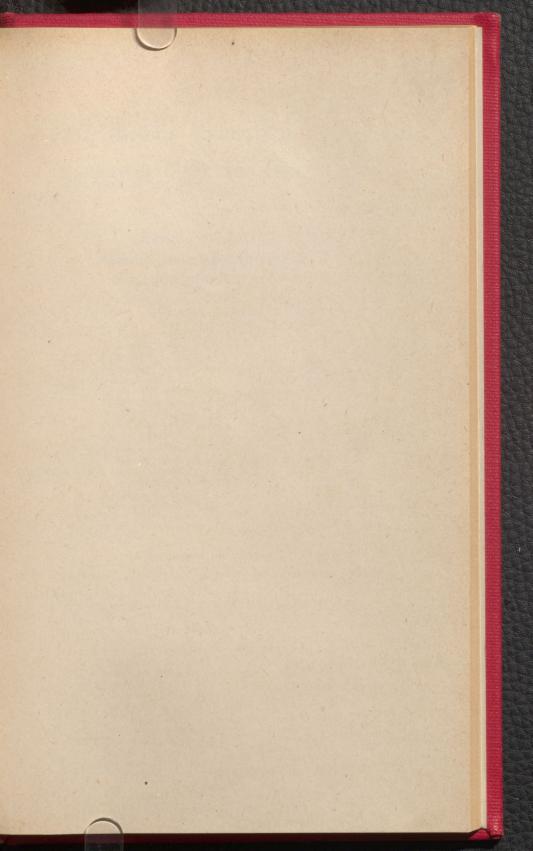
(Officers 1908.)

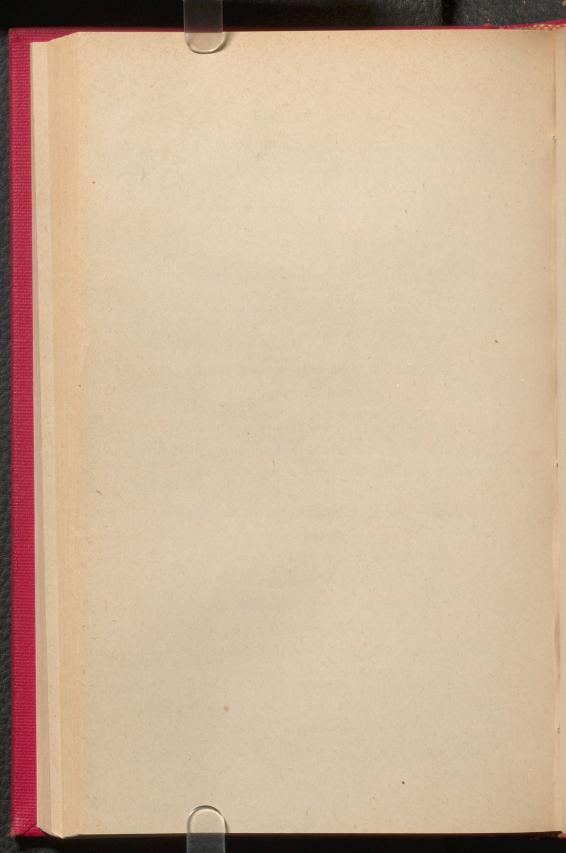
Honorary President-Hon. Joseph Dubuc, Chief Justice, Court of King's Bench.

President-John Graham, B.A. Vice-Presidents-C. A. MacKenzie, M.D., J. E. Schwitzer, B.A. Sc., F. W. Torrance, D.V.S., T. S. J. Smellie, M.D. Secretary—D. Roderick White, B.A., LL.B. 12 Bank of Hamilton Chambers, Winnipeg, Man.

Treasurer—A. R. Dufresne, B.A.Sc.

Executive Committee—Rev. Archdeacon Fortin, B.A., D.D., C.
B. Smith, Ma.E., W. A. Duff, B.A. Sc., J. S. McArthur, M.D.





## McGill University.

# SESSIONAL EXAMINATIONS 1907-1908.

## Faculty of Arts

## PASSES, HONOURS AND PRIZES:

PASSED FOR THE DEGREE OF B.A.

IN HONOURS.

(In Alphabetical Order.)

First Rank.— Brooks, Murray, G. Emerson, John. Feiczewicz, Louis. Fineberg, Nathaniel S. Gillis, Norman R. Hawkins, Frank E. Libby, Ruth E. Logan, Henry T. Shaw, Albert N. Smith, Annie. Tyndale, Orville S. Yates, Arthur.

Second Rank.—Boyle, Gertrude M.
Chandler, Edward F.
McClughan, Ellen.
Macnaughton, Ariel M.
Riley, Charles E.
Williams, Charles E.

Class

#### IN THE ORDINARY COURSE.

(In order of merit. Students of equal standing are bracketed together.)

Rice, Emery L.

Maclean, Herbert B.
Shanks, Walter R. L.

Shanks, Walter R. L.

Wlass II.—Younger, Marjorie.
Smillie, E. Arma.
Sauvalle, Germaine H.
Stockwell, Ralph F.
Plaisted, Gertrude M.
Greenshields, E. J. Moray.
McQueen, George R.
Hastings, William R.
Macdiarmid, Katie.
Timberlake, Ralph M.
Dolbel, Amy A.

Bouchard, Theodora C.

I.—Kingman, Abner.

Class III.—MacKeen, Anna M.
Creswell, Harris J.
Crutchfield, Charles N.
Isherwood, Percy.
Ross, L. Isobel.
Waterston, Edward.
Penny, Arthur G.
Patrick, Frank A.
Ramsey, G. A. Stuart.
Masson, Marian.

## PASSED FOR THE DEGREE OF B. Sc. (IN ARTS).,

Class I.—Auchinleck, Gilbert G.
Class II.—None.
Class III.—Stewart, Robert C.

#### DOUBLE COURSE IN ARTS AND APPLIED SCIENCE.

Class I.—None.
Class II.—None.
Class III.—Rider, Ezra B.

### DOUBLE COURSE IN ARTS AND MEDICINE.

Tannenbaum, David.

DOUBLE COURSE STUDENTS IN ARTS AND MEDICINE WHO WILL BE QUALIFIED TO OBTAIN THE DEGREE OF B. A. IN JUNE, 1908, ON COMPLETING THEIR MEDICAL YEAR.

Elliott, Robert. McBurney, Albert. Wilson, George T.

#### FOURTH YEAR (GRADUATING CLASS).

HONOURS.

(Subjects arranged alphabetically.)

1. In Biology.

McClughan, Ellen.—Second Rank Honours.

2. In Classics.

Smith, Annié.—First Rank Honours and Chapman Gold Medal. Logan, Henry T.—First Rank Honours.

#### 3. In the English Language and Literature.

Hawkins, Frank E., and Yates, Arthur (equal).—First Rank Honours and Shakspere Medal Prize.
Libby, Ruth.—First Rank Honours.
Macnaughton, Ariel.—Second Rank Honours.

4. In Economics.

Williams, Charles E .- Second Rank Honours.

Riley, Charles E .- Second Rank Honours.

5. In History and Economics.

Fineberg, Nathaniel S.—First Rank Honours. Brooks, Murray G., and Feiczewicz, Louis (equal).—First Rank Honours.

6. In History and English.

Emerson, John.—First Rank Honours.

7. In Latin and French.

Tyndale, Orville S.—First Rank Honours, and Governor General's Gold Medal.

8. In Mathematics and Physics.

Gillis, Norman R.—First Rank Honours and Anne Molson Gold Medal. Shaw, Albert N.—First Rank Honours in Physics, passed in Honour Mathematics.

Boyle, Gertrude M.—Second Rank Honours.

9. In Mental and Moral Philosophy.

Chandler, Edward F .- Second Rank Honours.

FIRST RANK GENERAL STANDING.

(1) B. A. Course.

Rice, Emery L.—Special Certificate.
Maclean, Herbert B.—Special Certificate.
Shanks, Walter R. L.—Special Certificate.

(2) B. Sc. Course.

Auchinleck, Gilbert G.—Special Certificate.

#### THIRD YEAR.

HONOURS.

(Subjects arranged alphabetically.)

(1) In Biology.

Slattery, Annie.—First Rank Honours. Cameron, Donald R.—First Rank Honours. Waterston, Douglas.—Second Rank Honours.

#### (2) In Chemistry.

Meldrum, W. B .- First Rank Honours.

#### (3) In Classics.

Estabrooks, Florence C.—First Rank Honours. Prize in Latin; prize in Greek

### In Latin (only).

Townsend, Charles L.—First Rank Honours and Prize.

## (4) In the English Language and Literature.

Archibald, Kenneth.—Third Rank Honours.

#### (5) In History and English.

Willis, Dorothy.—First Rank Honours and Prize. Brown, Theodora, and Wisdom, Bessie (equal).—Second Rank Honours.

## (6) In Mathematics and Physics.

Hatcher, A. G.—First Rank Honours and Prize. McGougan, A. G.—First Rank Honours and Prize.

#### (7) In Modern Languages.

Townsend, Charles L.—First Rank Honours (Fourth Year Course). Vipond, Florence.—Second Rank Honours.

#### PRIZES.

McDonald, Jessie.—Prize in English; Annie McIntosh Prize; Prize in History.

Massé, Alice.—Prize in French.
Packard, Mortimer L.—Prize in French.
Schafheitlin, Gertrud.—Prize in Zoology.

## PASSED THIRD YEAR EXAMINATIONS.

FOR COURSE LEADING TO B. A.

## (Arranged in alphabetical order.)

Archibald, Bole, Brown, Cameron, Carey, Cheesbrough, Corbett, Daw, Dennison, Drummond, Elliott (s), Estabrooks, Fisher, Fleet, Gordon, Green, Hale, Harvey, Hatcher, Hindley, Lemesurier, McDonald, McGougan, Mackenzie, Massé, Meldrum, Mitchell, Moodie, Norris, Packard, Pedley, Plimsoll, Rennoldson, Richardson, Ross, Slattery, Stanton, Surprenant (s), Townsend, Tremblay (s), Vipond, Waterston, Willis, Wilson (F. M.), Wilson (T. E.), Wisdom, Wodehouse (s).

Aegrotat.—McNeill.

<sup>(</sup>g) Supplemental in One Subject.

#### FOR COURSE LEADING TO B. SC.

Class I.—Schafheitlin, Gertrud. Class II.—Gray, Annie R.

Class III .- None.

UNDERGRADUATES IN ARTS REGISTERED IN MEDICAL FACULTY, WHO WILL BE
QUALIFIED TO ENTER THE FOURTH YEAR ARTS ON
COMPLETING THEIR MEDICAL YEAR.

Canegata, David C. Clouston, Howard R. Gliddon, William O. Mavety, LeRoy. Shannon, W. Lloyd.

#### SECOND YEAR.

#### HONOURS.

In Mathematics and Physics.

Mabon, J. Bertram.—First Rank Honours and Prize.
Macnaughton, Gordon F.—First Rank Honours and Prize.
Passed.—McGannon, Edward M.

#### ADVANCED SECTIONS.

French.

Underhill, Emily R.—First Class. Elder, Aubrey H.—First Class. Trenholme, Katherine T.—First Class. Plaisted, Lilian D. W.—First Class.

German.

Elder, Aubrey H.—First Class. Trenholme, Katherine T.—Second Class. Prentice, Norman A.—Third Class. Bennetts, Edith E.—Third Class.

Hebrew.

Scrimgeour, C. E. (M.A.)—Neil Stewart Prize.

Latin.

(Extra Course, open to First and Second Years.)

Paterson-Smyth, Charles (Second Year).—First Class.
Seymour, Louise E. (Second Year).—First Class.
Mount, B. Ruth. (Second Year).—First Class.
McKinnon, Annie M. (Second Year).—First Class.
Angus, Henry F., and King, Alfred N. (equal) (First Year).—Second Class.
Newell, Annie B. (Second Year).—Second Class.
Morris, J. Frederick (First Year).—Second Class.

#### PRIZES.

Cockfield, Harry R.—Prize in Greek. Couture, Réné P.—Prize in French. DeSola, Bram C.—Prize in History and Economics; Prize in Latin. Elder, Aubrey H.—Prize in English; Prize in German. McKinnon, Annie M.—Prize in Latin. MacKinnon, Marion G .- Prize in German. Mabon, J. Bertram.—Prize in Latin; Prize in Chemistry. Mount, B. Ruth.—Prize in Latin. Paterson-Smyth, Charles.—Prize in Greek; Prize in Latin. Ramsay, I. D.—Prize in Botany; Prize in Zoology. Ross, S. Graham.—Prize in Greek. Seymour, Louise E.—Prize in Greek. Trenholme, Katherine T.—Prize in English; Prize in French.

#### PASSED THE SECOND-YEAR EXAMINATIONS.

#### COURSE LEADING TO B. A.

Class I.—De Sola, Paterson-Smyth, Elder, Seymour, McWhinney 1, Trenholme, Cockfield.

II .- McKinnon (A. M.), Tippet, Wood, Couture, Plaisted, Macdon-Class ald (Murdo), Thorne, Mount; Douglas and Holmes †, equal; Ross, Powles, Mariotti, Miller (Clare) (s), Taylor; Bennetts and MacKinnon (M. G.), equal; Brehaut; Lamb and Phipps;

and Stone ‡, equal; Armstrong, Brownlee.

Class III.—Ramsay (I. D.); Lawlor and Murchison, equal; Newell,

Prentice, Kolber, Digby, Ramsey (M. E. G.) (s); Sutherland (s) and Thomas (E. O) ‡ (s), equal; Carr; Hutchison (s) and Skaling ‡, equal; Brower (s), Miller (M. I.) (s), Solomon (s), Cruickshank (s`, Kendall (s), Wilson (s); Gardiner (s) and Johnston (s), equal; Badgley (s), Rosenberg (s), Manning ‡, (s), Macdonald (A. B.) (s), Baylis (s).

#### FIRST YEAR-ADVANCED SECTIONS.

#### In Mathematics.

First Class. —Paterson-Smyth, Marjorie (Alexandra College, Dublin). Angus, Henry F. (Victoria College, B. C.).

Maass, Otto (Montreal High School).

Second Class.—King, Alfred (Victoria College, B. C.), and Scott, Arthur A. (Montreal High School), equal; Duggan, Herrick S. (St. Alban's School, Brockville), and Lochhead, Allan G. (Montreal High School), equal.

#### PRIZES.

Angus, Henry F. (Victoria College, B. C.).—Prize in French; Prize in Mathematics and Physics.

Duggan, Herrick S. (St. Alban's School, Brockville).—Prize in French; Prize in German.

McGill University College of British Columbia.
 Victoria College, Victoria, B. C.
 Supplemental in One Subject,

Grimes, Evie M. (McGill Normal School).-Prize in English; Prize in French; Prize in Latin; Prize in Mathematics and Physics.

McGoun, A. Forster (Montreal High School).-Prize in Latin.

Maass, Otto (Montreal High School).—Prize in Mathematics and Physics. Paterson-Smyth, Marjorie (Alexandra College, Dublin).—Prize in Latin; Prize in Mathematics and Physics.

Scott, Arthur A. (Montreal High School).—Prize in Physics.

Warburton, Hugh (Prince of Wales College, Charlottetown, P. E. I.) .-Prize in English.

#### PASSED THE FIRST-YEAR EXAMINATIONS.

### (1) For Course Leading to B. A.

Class I .- Grimes and Paterson-Smyth, equal; Angus, McGoun (A. F.), Paterson ‡, King, Schafheitlin, Chandler †, Smith (M. A.) ‡.

II.—Warburton, Howard, Cunningham, Scott, Bissett, Creaghan, Hammond; Murchison and Taylor, equal; Maass, Lochhead; Crowell and Morris (J. F.), equal; Dewey; Slack and Kerry, equal; Lindsay; and Beckwith; (s), equal; Bailey, Cherry, Beard; (s), McNaughton; (s); Dowd and Domoney; and Sparling t, equal; MacQueen (s).

Class III.—Hayden, Davidson, Fletcher (s), Currie (s), Argue (s), Selman ‡, Van Vliet, Morris (R.); Irving (s) and Stone ‡, equal; Tannenbaum, Larivière, Hannah (s); Dixon (s) and equal; Tannenpaum, Lariviere, Hannan (s); Dixon (s) and MacLeod (J. V.) ‡, equal; Reid (s), Hodgkinson (s); Robertson and Carr ‡ (s), equal; Donald (s); Macdonald and Willett ‡ and Harper ‡ (s), equal; Reinhardt (s) and Boyd ‡, equal; Davies (s), Shaw ‡ (s), Wanklyn (s), MacLean; McKeen ‡ (s) and McKillican † (s), equal; Papke † (s), Duke ‡ (s), Stewart (E. L.) ‡ (s), Craig (s), Livinson (s), Cook, Boak ‡ (s), MacAdam (s), Olmstead (s), Boyes ‡ (s), Herschorn (s); Erskine † and Christia (s), equal: McGonn Herschorn (s); Erskine † and Christie (s), equal; McGoun (G. G.) (s), Newcombe (s), Crawford + (s), Alexander + (s).

## (2) For Course Leading to B. Sc.

Class I.—None. II.—Coote, Duggan. Class Class III .- Mewburn.

#### STANDING IN THE SEVERAL SUBJECTS.

FOURTH YEAR.

BOTANY.

(Ordinary Course.)

Class I.—None. Class II.—None. Class III.—McClughan.

<sup>†</sup> McGill University College of British Columbia. † Victoria College, Victoria. B. C. (g) Supplemental in One Subject.

#### BOTANY.

(Structure of Woods.)

Class I.—McQueen. Class II.—Crutchfield.

#### CHEMISTRY.

Class I.—Auchinleck. Class II.—None. Class III.—Stewart.

#### CONSTITUTIONAL LAW.

Class I.—None. Class II.—Williams. Class III.—Lindsay, Penny.

#### ENGLISH COMPOSITION.

Class I.—Hawkins; Macnaughton and Yates, equal; Libby; Penny and Younger, equal; Auchinleck. Class II.—Creswell and Maclean and Rice and Smillie, equal; McQueen and Riley, equal; Stockwell; Bouchard and Lindsay and Sauvalle, equal; Kingman and Ross, equal; Emerson and Shanks, equal; Macdiarmid and Plaisted, equal; Dolbel and Isherwood, equal; Simpson. Class III.—Stewart and Waterston, equal; Greenshields and MacKeen, equal; Ayer and Elliott and McBurney, equal; Luttrell; Timberlake and Wilson, equal; Patrick, Ramsey; Hastings and Wood, equal; Crutchfield.

## ENGLISH LITERATURE.

#### (1) English Prose Fiction.

Class I.—Libby, Hawkins, Macnaughton, Smillie, Penny, Rice. Class II.—MacKeen, Riley; Maclean and Yates, equal; Bouchard and Sauvalle, equal; Ross. Class III.—Macdiarmid, Luttrell, Emerson; Isherwood and Patrick, equal; Ramsey, Timberlake, Stanton.

#### Graduate Student.

Class I.—None. Class II.—Salt.

#### (2) Nineteenth Century Poets.

Class I.—Hawkins, Yates, Libby; Macnaughton and Maclean and Riley, equal. Class II.—Bouchard and Shanks, equal; Rice and Smillie, equal; Stockwell, Sauvalle, Ross, Dolbel, Penny. Class III.—Timberlake, Macdiarmid, Isherwood, Ramsey, Luttrell.

### (3) Comparative Literature.

Class I.—Libby, Hawkins, Macnaughton, Yates. Class II.—Shanks, Emerson; Massé and Stockwell, equal; Brown and Willis, equal. Class III.—Archibald, Fleet, Wisdom.

#### EXPERIMENTAL PHYSICS.

#### (1) Electricity and Magnetism.

Class I.—None. Class II.—Ayer, Simpson. Class III.—Timberlake, Creswell.

### (2) Electrical Measurements.

Class I.—Gillis, Shaw, Boyle.

#### FRENCH.

Class I.—Sauvalle and Tyndale, equal; Stockwell, Townsend, Underhill; Shanks and Younger, equal. Class II.—Dolbel, MacKeen. Class III.—Waterston.

#### GEOLOGY.

Class I.—None. Class II.—Crutchfield and Plaisted, equal. Class III.
—Creswell, Ramsey.

#### GEOLOGY.

#### (Continuation Course.)

Class I.—Kingman. Class II.—McQueen, Greenshields. Class III.—Hastings, Patrick.

#### GERMAN.

Class I.—Townsend. Class II.—Younger. Class III.—None.

#### GREEK.

Class I.—Smith, Logan. Class II.—None. Class III.—Bouchard.

#### HISTORY.

Class I.—Maclean. Class II.—Crutchfield, Smillie, Macdiarmid. Class III.—Ramsey, Isherwood.

#### ITALIAN.

Class I.—None. Class II.—Younger, Dolbel. Class III.—None.

#### LATIN.

Class II.—Tyndale, Smith, Logan. Class II.—None. Class III.—Plaisted, Lindsay.

Ø

#### LOGIC AND METAPHYSICS.

Class I.—None. Class II.—Waterston. Class III.—None.

#### MORAL PHILOSOPHY.

Class I.—Maclean: Plaisted and Luttrell, equal: Macdiarmid. Class III.—Penny and Timberlake, equal. Class III.—Ross.

#### PHILOSOPHY (Kant).

Class I.—Rice. Class II.—Chandler.

#### POLITICAL ECONOMY.

## (1) Canada. Government and Public Policy.

Class I.—Smillie, Fineberg, Feiczewicz. Class II.—Brooks, Shanks-Creswell, Williams. Class III.—MacKeen, Patrick, Bouchard, Isherwood, Crutchfield; McQueen and Stockwell, equal.

#### Graduate Student.

Class I .- None. Class II .- Parker.

## (2) Political and Social Theories.

Class I.—Shanks, Smillie. Class II.—Bouchard, Williams, Stockwell. Class III.—MacKeen, Isherwood, Creswell, Crutchfield.

#### Graduate Student.

Class I.—None. Class III.—Parker.

#### (3) Public Finance.

Class I.—Kingman, Brooks, Feiczewicz. Class II.—Fineberg, Williams, Patrick. Class III.—Waterston, Hastings, McQueen.

#### POLITICAL SCIENCE.

Class I.—Kingman, Rice. Class II.—Greenshields, Hastings, Sauvalle. Luttrell. Class III.—Ross.

#### PSYCHOLOGY.

Class I.—None. Class II.—None. Class III.—Chandler.

#### ZOOLOGY.

(Anatomy of Vertebrates.)

Class III .- McClughan.

#### THIRD YEAR.

#### ASTRONOMY.

(Christmas, 1907.)

Class I.—Hatcher and McGougan, equal. Class II.—None. Class III.
—None.

#### BOTANY.

Class I.—Schafheitlin, Slattery, Cameron, Waterston. Class II.—Gray. Class III.—Harvey.

#### CHEMISTRY.

Class I.—Meldrum. Class II.—Gray. Class III.—None.

#### CHEMISTRY.

(Historical and Physical.)

Class I.—Meldrum. Class II.—Gray. Class III.—None.

#### COMPARATIVE PHILOLOGY.

(Christmas, 1907.)

Class I.—McNeill. Class II.—None. Class III.—Vipond.

#### CONSTITUTIONAL LAW.

Class I.—Drummond. Class II.—Plimsoll. Class III.—Daw.

#### ENGLISH COMPOSITION.

Class I.—Hindley; Lemesurier and McDonald and Wisdom, equal; Gordon and Shannon, equal. Class II.—Ross; Green and Packard and Wilson (T. E.), equal; Geggie; Archibald and Gray and Pedley and Willis, equal; Schafheitlin; Brown and Dennison and Mitchell and Wodehouse, equal; Corbett and Hale and Mavety and Norris, equal; Elliott; Cheesbrough and Harvey, equal. Class III.—Drummond; Bole and Stanton, equal; Cameron and Clouston and Fisher and Richardson, equal; Holden and MacKenzie, equal; Massé; Gliddon and Moodie and Wharton, equal; Rennoldson; Fleet and Plimsoll, equal; Wilson (F. M.), Surprenant, Tremblay, Daw; Canegata and Carey, equal.

#### (1) Eighteenth Century.

#### ENGLISH LITERATURE.

Class I.—Hindley; McDonald and Norris, equal; Hale; Holden and Wodehouse, equal. Class II.—Archibald, Fisher, Gordon, Cheesbrough. Class III.—Bole, Green, Pedley, Ross; Corbett and Harvey and Stanton, equal; Lemesurier; Rennoldson and Wharton, equal; MacKenzie; Wilson (F. M.) and Wilson (T. E.), equal.

#### (2) Shakspere.

Class I.—McDonald; Hindley and Norris, equal. Class II.—Archibald and Ross, equal; Willis, Massé; Holden and MacKenzie and Pedley, equal. Class III.—Corbett and Fisher, equal; Brown and Dolbel and Hale, equal; Cheesbrough and Harvey, equal; Dennison and Rennoldson and Wilson, (F. M.), equal; Green; Bole and Gordon, equal; Wisdom, Moodie; Lemesurier and Wilson, equal.

#### EXPERIMENTAL PHYSICS.

#### (1) Electricity and Magnetism.

Class I.—McGougan; Hatcher and Ross, equal; Meldrum and Wilson, equal. Class II.—Scott (O. H.). Class III.—None.

## (2) Sound, Light, Heat.

Class I.—None. Class II.—Rennoldson and Surprenant, equal. Class III.—None.

#### FRENCH

Class I.—Massé, Packard, Tremblay, Vipond; Elliott and Fisher, equal. Class II.—LeMesurier, Cushing, Geggie, Drummond, Fleet; Wilson and Cheesbrough, equal. Class III.—Plimsoll, Pedley.

#### GEOLOGY.

Class I.—McDonald, Slattery; Cameron and Schafheitlin, equal; Fisher. Class II.—Gray and Hale and Wilson (F. M.), equal; Fleet, Cheesbrough; Moodie and Packard, equal; Mtchell, Pedley, Raynes, Tremblay; Norris and Richardson, equal; Bole and Carey and Green, equal; Daw and Harvey, equal. Class III.—Drummond and Gordon, equal; Elliott and LeMesurier, equal; Rennoldson; Corbett and Plimsoll, equal; MacKenzie and Stanton, equal; Surprenant, Mackintosh.

#### GERMAN.

Class I.—None. Class II.—Vipond. Class III.—None.

#### GREEK.

Class I.—Estabrooks. Class II.—None. Class III.—Mitchell.

#### HISTORY.

Class I.—McDonald and Willis, equal; Richardson, Packard. Class II.—Wisdom, Brown, Norris, Carey, Dennison. Class III.—Green, Stanton.

#### LATIN.

Class I.—Estabrooks, Townsend. Class II.—None. Class III.—Wodehouse, Mitchell, Massé.

#### MORAL PHILOSOPHY.

Class I.—Hale. Class II.—Raynes, Corbett, Richardson, Dennison. Class III.—Gordon, Mackenzie; Bole and Mavety, equal; Moodie, Gliddon, Mackintosh.

#### POLITICAL ECONOMY.

Class I.—Hindley. Class II.—Clouston, Holden, Wilson, Ross. Class III.—Shannon, Daw, Canegata, Wood.

#### POLITICAL SCIENCE.

Class I.—None. Class II.—Shannon, Fleet, Hindley, Canegata, Gliddon. Class III.—Geggie and Mavety, equal; Clouston, Carey.

#### ZOOLOGY.

Class I.—Schafheitlin, Slattery. Class II.—Cameron. Class III.—Waterston, Holden.

#### SECOND YEAR.

BIOLOGY.

#### (1) Animal Biology.

(Christmas, 1907.)

Class I.— None. Class II.— Ramsey, Miller (Clare), McKinnon (A.M.), Digby, Sutherland. Class III.—Douglas, Macfarlane, Fletcher, Bruneau, Johnston (W. R.). Aegrotat.—Whitehall.

#### (2) Plant Biology.

#### (April, 1908.)

Class I.—Miller (Clare); Kolber and Johnston (W.R.), equal; Ramsey. Class II.—McKinnon (A. M.), and Solomon and Sutherland, equal; Douglas; Dennison and Digby, equal; Bruneau. Class III.—Gardiner and Thompson, equal; Livinson, Runnells.

#### (Animal Biology.)

(Passed Supplemental of Christmas examination.) Gardiner, Hollingsworth, Kolber, Runnells, Solomon.

#### CHEMISTRY.

Class I.—Mabon, Macnaughton, Kolber, Douglas, Seymour; Armstrong and Ross, equal; Carr. Class II.—Gordon, Riley; Hutchinson and Ramsey, equal; Solomon; Bruneau and Cassels and Skaling‡ and Trainor, equal; Bunt‡, Digby, Sutherland, Baylis. Class III.—Gardiner

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and McGannon, equal; Busteed ‡ and McCann and Ramsey (Ethel), equal; Macdonald (A. B.) and Thompson, equal; McLellan +, Phipps +, Stone +.

#### ENGLISH COMPOSITION.

Class I .- Trenhoime, Wood, Thorne, Elder, Riley; Green † and Macnaughton, equal; Paterson-Smyth, Stone ‡; de Sola and Holmes †, equal; Cockfield and McKinnon (A. M.) and McWhinney ; and Miller (C.) and Sutherland, equal. Class II.—Mariotti and Plaisted and Tippet, equal; Seymour, Ramsey (Ethel), Murchison; Gordon and Powles, equal; Mount and Robinson, equal; Gardiner and Mackinnon (M. G.) and Miller (M. I.), equal; Brownlee and MacLaren and Phipps ; and Sinclair and Walker \*, equal; Douglas; Badgley and Brower and Roper \*, equal; Couture and Macdonald (M.) and Newell, equal. Class III.—Mabon and Brehaut and Taylor, equal; Cruickshank and Macdonald (A. B.), equal; McGannon and Skaling ‡, equal; Thompson (W.K.); Johnston and Thomas (E.O.)‡, equal; Bunt ‡, McEwen; Armstrong and Digby and McMahon and Rosenberg, equal; Bennetts and Kendall and Lamb and Prentice, equal; Hutchinson and McCuaig and Thompson (A.E.), equal; Baylis and Carr and Solomon, equal; Kolber; McMurtry and Street, equal; Gillmor and Meadows ‡, equal; Ross; Drury and Manning ‡ and Redpath and Runnells and Wilson, equal; Lawlor and Ramsay (I.D.), equal; Thomas (O. J.); Sargent; Cassels and Trainor, equal.

#### ENGLISH LITERATURE.

Class I.—Trenholme, Elder, Holmes †, Wood, McWhinney ‡; Reilly and Seymour, equal; Green † and Miller (M. I.) and Mount and Phipps ‡ and Roper \*, equal. Class II.—Ramsey (E.); Plaisten and Tippet and Walker \*, equal; Paterson-Smyth; Miller (Clare) and Stone +, equal; Couture and Thomas (E.O.); equal; Cockfield, Brehaut, McKinnon (A. M.), Murchison, Mackinnon (M. G.); Bennetts and Brownlee, equal; McEwen and Meadows ‡, equal; Johnston and Thorne, equal. Class III. -Brower and Lamb and Robinson and Sinclair, equal; Mariotti; Prentice and Taylor, equal; Bunt ‡, McLellan ‡; Baylis and McMahon and Powles and Ross, equal; Cruickshank, Carr; Kendall and McMurtry, equal; Manning ‡; Badgley and Newell, equal; Gordon and Rosenberg and Wilson, equal; McCuaig and MacLaren, equal; Runnells, Gardiner, Skaling ; Macdonald (A. B.) and Street and Thomas (O. J.);, equal.

#### FRENCH.

Class I.—Couture; Elder and Trenholme, equal; de Sola, McKinnon (A. M.). Class II.—Plaisted and Taylor, equal; Bennetts, Holmes †, Macdonald (M.), Stone ‡; Mariotti and McWhinney ‡, equal; Armstrong, Mount. Class III.—Kolber; Miller (C.) and Paterson-Smyth, equal; Douglas and Newell, equal; Brownlee, Prentice, Badgley; Digby and Solomon, equal; McMurtry; Hutchinson and Johnston, equal; Green † and Lawlor and Sargent, equal; McMahon.

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#### GERMAN.

Class I.—Elder, MacKinnon (M.). Class II.—Trenholme, Bennetts, Taylor, Prentice, Ramsay (I.D.), Murchison, Rosenberg. Class III.-Brower; Gray and Sutherland, equal; Cruickshank.

#### GREEK.

Class I.—Paterson-Smyth, Ross, Cockfield; de Sola and Seymour, equal; Powles and Tippet, equal. Class II.—Robinson, Newell, Phipps 1. Class III.—Thomas (E.O.); and Thorne, equal; Manning; Thomas (0. J.)‡.

#### HEBREW.

Class I.—Scrimgeour, Raynes. Class II.—Cordner. Class III.—Mackenzie, Colquhoun, Mackintosh.

#### HISTORY AND ECONOMICS.

Class I.—de Sola, Thorne, Wood, Couture; Cruickshank and Macdonald (M.) and Reilly, equal. Class II.—Lamb and Kendall and Wilson, equal; Brownlee and Maclaren, equal; McCuaig, McEwen, Lawlor, Hutchinson, Miller (M. I.). Class III.—Baylis, McKay, Thomson. Passed in Economics Only.

Class III .- Sinclair.

#### LATIN.

Class I.—Paterson-Smyth, de Sola; Mabon and Mount, equal; McKinnon (A. M.), Cockfield, Seymour, McWhinney ‡, Plaisted. Class II.— Douglas and Macdonald (M.) and Powles, equal; Tippett and Trainor, equal; Mariotti; Brehaut and Elder, equal; MacKinnon (M.G.), Bennetts; Lawlor and Prentice and Taylor and Trenholme, equal; Lamb and Newell, equal. Class III.—Holmes †; Phipps ‡ and Thomas (E. O.) ‡, equal; Wood; Robinson and Digby, equal; Couture and Green †, equal; Gordon and Murchison and Roper \*, equal; Armstrong and Raysay (I. D.), equal; Brownlee and Stone ‡, equal; Carr and Skaling ‡, equal; Johnston and Reilly, equal; Kolber.

#### LOGIC.

#### (Half-course—April, 1908.)

Class I.—Cockfield. Class II.—Macdonald (M.), Brower; Mariotti and Thorne, equal; Carr and Powles, equal; Tippet. Class III.—Murchison, McCuaig and Rosenberg, equal; Brehaut, Kendall, Ramsey (M.E.G.), Bruneau and Wood, equal; McMahon, Mount, Roper \*, Plaisted; Gordon and Miller (M. I.), equal; Macdonald (A. B.), Wilson, Badgley, Mac-Kinnon (Marion) and Robinson, equal.

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#### MATHEMATICS.

#### (1) Solid Geometry and Conic Sections.

Class I .- McWhinney ‡. Class II .- McLellan ‡, Lawlor; Meagher and Skaling ‡, equal; Lamb, Paine (A. J. C.), Trainor, Armstrong. Class III.

—Ross, Cassels, McEwen, Green †, Thomas (E. O.‡, Holmes †, Meadows ‡,
Manning ‡; Brehaut and Kingston and Sargent, equal.

## (2) Algebra.

#### (April, 1908.)

Class I.—McWhinney ‡, Brehaut, Lawlor, Ross. Class II.—Green †, Cassels, Armstrong, Lamb. Class III.—Paine (A. J. C.), Skaling ‡, Payne (S. C.), Holmes †, Manning ‡, Kingston.

#### Solid Geometry and Conic Sections.

(Passed Supplemental of Christmas Examination. Payne, Redpath.

#### PHYSICS.

Class I .- Mabon, Macnaughton. Class II.- None. Class III .- Mc-Gannon.

#### PSYCHOLOGY.

#### (Half-course—Christmas, 1907.)

Class I.—Tippet. Class II.—Wilson, Miller (M. I.), Macdonald (Murdo), Gordon; Cockfield and Plaisted, equal. /Class III.—Thorne; Mount and Wood, equal; Brower and Powles, equal; Brehaut and Mariotti, equal; McKinnon (M.G.) and McMahon, equal; Ramsey (Ethel), Murchison; Carr and Macdonald (A.B.), equal; Rosenberg; MacLaren and McCuaig and Robinson, equal.

#### PSYCHOLOGY.

(Passed Supplemental of Christmas Examination.) Badgley, Bruneau, Kendall, Runnells, Sinclair.

#### FIRST YEAR.

#### ENGLISH LITERATURE, COMPOSITION AND HISTORY.

Class I.—Warburton, Grimes; Allen and Carr ‡, equal; Schafheitlin and Paterson-Smyth, equal; Kerry and Maxwell and Winslow, equal. Class II.—Paterson; Smith (M. A.); Domoney; Angus and Bissett and Chandler; and Lindsay; equal; Dewey and King and McGoun (A. F.), equal; McNaughton; and Taylor; equal; Hodgkinson and Selman; equal; Cunningham and FitzGibbon and Irving and Murchison,

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equal; Bailey and Beckwith † and DesBrisay ‡ and Dixon and Sparling ‡, equal; Howard and Macleod (J. V.)‡, equal; Hammond; Bernstein and Fletcher, equal; Beard‡ and McKillican† and Currie and Stone‡ and Wanklyn, equal. Class III.—Christie and Shaw‡, equal; Tannenbaum; McEwen and Papke†, equal; Craig and Crowell and Davidson and Don-McKeen and Tapke 1, equal; Craig and Crowell and Davidson and Donald and Harrington and Lochhead and Maass and Reid (F. C.) and Sleep and Stewart (E. L.); equal; Boak; and Coote and Harper; equal; Busteed; and Duggan and Greer and Letvinoff; and MacAdam and McKeen; and Morris (R.), equal; Creaghan and Dowd and Scott and Wilson, equal; Carr and Davies and Henry and Hulburd and Slack, equal; Alexander; and Argue and Brown and Robertson, equal; Hayden and Livinson and McGoun (G. G.) and VanVliet, equal; Boyes; and Heney and Macdonald and Markhurn and Marke, equal; Cook and Hawahard. and Macdonald and Mewburn and Moyse, equal; Cook and Hannah and MacKenzie ‡ and Olmstead and Willett ‡, equal; Brock and Maclean and MacMillan ‡ and MacQueen and Roberts and Smith (P.)‡ and Wilson ‡, equal; Boyd and Herschorn and Loud and Morris (J. F.) and Ross, equal; Lariviere and Mathewson and Reid (A. W.), equal; Astrofsky and McLaurin, equal; Armstrong and Crawford +, equal; Duval and Newcombe and Williamson, equal; Ellison (M. K.), Cherry.

#### Passed in Literature and History.

Blankenback †, Dixon ‡, Duke ‡, Farrell ‡, Fleming ‡, Grant‡, Hosang‡, Knowling ‡, Roberts †, Turnbull ‡, Underhill ‡.

#### Passed in History.

Brown, Calder, Campbell, Daw, Hadrill, Montgomery \*, Stewart (C.A.);, Wadleigh, Williams.

Passed in English Literature and Composition.

Coates †, Jones †, Macleod (H. E.) ‡.

Passed in English Composition.

Elliott ‡.

#### Taking History Only.

Class I.—None. Class II.—Sutherland. Class III.—Reinhardt.

#### FRENCH

Class I.—Grimes, Paterson-Smyth; Angus and Duggan, equal; Schafheitlin, Hammond, Lariviere; Chandler † and Lochhead and McGoun (A. F.) and Winslow, equal. Class II .- Dewey; Hayden and VanVliet,

<sup>†</sup> McGill University College of British Columbia. † Victoria College, Victoria, B.C.

<sup>†</sup> Victoria College, Victoria, B.C. \* Alberta College, Edmonton, Alta.

equal; Slack, Beckwith †; Cherry and Duval, equal; Taylor ‡, Des Brisay ‡, Dowd; Kerry and Lauterman, equal; Coote and Scott (A. A.), equal; Bernstein and McLaurin, equal; Howard and Robertson and Sparling ‡, equal. Class III.—Blankenbach 7; Cunningham and McNaughton†, equal; Carr # and Crowell and Papke †, equal; Beard # and McDonald (S. V.), equal; Reid and Wanklyn, equal; Erskine † and MacAdam and Thornton and Wilson, equal; Argue and Greer and McEwen and McKillican t, equal; Lindsay t and Newcombe and Underhill t and Willett I, equal; Hosang # and McQueen and Roberts #, equal; Boak # and Mewburn and Reinhardt, equal; Coates † and Tannenbaum and Wharton, equal; Boyd # and Brown (A.G.) and Scott (L.) and Stone #, equal; Cook and Fletcher and Olmstead, equal; Herschorn and Macleod (J. V.) # and Maass and Selman +, equal; Daw and Jacobs and McGoun (G. G.), equal; Bailey and Creaghan and Shaw ‡, equal; Jones †, Duke ‡.

#### GERMAN.

Class I.—Beard ‡, Duggan, Bernstein; Cherry and DesBrisay ‡ and Lauterman, equal. Class II.—Harper ‡, Carr ‡, Mathewson. Class III.— Hansen \*, Craig, Armstrong ‡, Scott, Brock.

#### GERMAN-BEGINNERS' CLASS.

Class I.—None. Class II.—Coote, Bissett. Class III.—Mewburn.

#### GREEK.

Class I.—Paterson ‡, McGoun (A. F.), Smith (M. A.)‡. Class II.— Morris (R.), Morris (J. F.), Dewey; Hodgkinson and Murchison, equal; Domoney; Hammond and Hannah, equal. Class III.—Letvinoff; and Warburton, equal; Stewart (E. L.) ‡, Maclean, Dixon ‡, Larivière, Lummis, Turnbull ‡, Irving.

#### GREEK-BEGINNERS' CLASS.

Class I.—King, Angus. Class II.—Davidson. Class III.—Dowd, Rob-

Class I.—Paterson-Smyth, McGoun (A. F.), King, Chandler †, Grimes, Paterson ‡, Smith (M. A.) ‡, Angus; Beckwith † and Hammond and Lochhead, equal. Class II.—Bissett and Bailey, equal; Lindsay ‡ and Slack, equal; Dowd and McNaughton †, equal; Dewey and Schafheitlin, equal; Macleod (H. E.) ‡ and Murchison, equal; Crowell, Cunningham; Creaghan and Reid and Taylor t, equal; Hosang t and Scott, equal; Domoney #; Davidson and Warburton, equal; Letvinoff # and Papke †, equal. Class III.—Harper ‡ and Kerry and Maass and Morris (J. F.), equal; Davis and Howard and Sparling ‡, equal; Beard ‡ and DesBrisay ‡

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and Hannah and McKeen ‡ and McKillican †, equal; Argue and Macleod (J. V.)‡, equal; Olmstead; Hayden and Hodgkinson, equal; MacAdam and Morris (R.) and Willett ‡, equal; Crawford ‡ and Dixon and Heney and Robertson and Shaw‡, equal; Stewart (E.L.)‡, Maclean; Duke‡ and VanVliet, equal; Alexander‡ and Boyd‡ and Cherry and Cook and Roberts†, equal; Currie and Stone‡, equal; Boak‡ and Carr‡ and Mac-Kenzie‡ and Newcombe and Selman‡, equal; Hill and Macdonald and Moyse and Reinhardt, equal; Tannenbaum; Daw and Craig and Knowling ‡, equal; Boyes ‡ and Donald and Turnbull ‡, equal.

#### MATHEMATICS.

## (1) Algebra.

Class I.—Grimes, Maxwell, Creaghan; Cherry and McGoun (A. F.), equal; Beckwith † and Coote, equal; Wilmot ‡; Chandler † and Warburton, equal; Lindsay;; McNaughton; and Schafheitlin and Shaw;, equal; Cunningham and Morris (J. F.) and Paterson; equal; Fletcher and Mewburn, equal; Boyd; and Stone; equal. Class; I.—MacMillan; and McQueen, equal; Blankenbach; Beard; and Crowell and Maclean, equal; Livinson and Macleod (H. E.); and Taylor; equal; Howard and Sparling; equal; Ritson; Selman; and Willett; equal; Alexander; and Huff; and Slack, equal; Boyes; and Donald and Dowd, equal; Bailey and Bissett and Dixon; and McGoun (G. G.), equal; Argue and Currie and Hosang; and Irving and Smith (M. A.); and Smith (P.); and Tannenbaum, equal. Class III.—Christie and Stewart (C. A.);, equal; Kerry; Herschorn and McKeen; and McKillican; and Morris (R.), equal; Dewey; Carr # and Grier and Leckie #, equal; Crawford # and Davidson and Ross and Wanklyn, equal; Davies; Larivière and VanVliet, equal; Domoney ; and Farrell; and Hayden and Heney and MacKenzie ‡ and Papke †, equal; MacMaster; Dixon and Macleod (J. V.) ‡ and Peck, equal; Hammond; DesBrisay ‡ and Fleming ‡ and Harper ‡, equal; Cook and Jacobs, equal; Murchison; Armstrong and Brock and Duke ‡ and Elliott ‡ and Hannah and Hurlburd and Knowling ‡ and MacAdam and Macdonald and Moyse and Reinhardt and Richardson and Robertson and Wadleigh and Wilson, equal.

## Trigonometry.

Class I.—Grimes, Creaghan; Crowell and Huff \* and Selman ‡, equal; Cook and Cunningham and McQueen, equal; Fletcher and Morris (J. F.), equal; Duke ‡, McGoun (A. F.); Howard and McNaughton ‡, equal; Macleod (J.V.) ‡; Boyd ‡ and Patterson ‡ and Shaw ‡, equal; Argue and Bailey and Irving and McMaster and Maxwell and Sparling t, equal; Smith (M. A.) . Class II .- Currie and Donald and Hyman and Reinhardt and Schafheitlin, equal; Beckwith † and Lindsay ‡, equal; Domoney t and Macleod (H. E.) t, equal; Dixon t; Cook and Herschorn and Mewburn and Murchison and Warburton, equal; Bissett and Boyes ; and Macdonald and Taylor ;, equal; Slack, Wilmot ;; Chandler † and Christie and Davies and Hulburd and Livinson and Mc-Keen ‡, equal; MacMillan ‡, McGoun (G. G.); Boak ‡ and Willett ‡,

<sup>†</sup> McGill University College of British Columbia. † Victoria College, Victoria, B C \* Alberta College, Edmonton, Alta.

equal; Hammond and Logan, equal. Class III .- McKillican † and Smith (P.) and Stone t, equal; Dewey and Tannenbaum and VanVliet and Wanklyn, equal; Hosang ‡; Kerry and Larivière and Maclean and Reid, equal; Cherry and Grier and Hannah and Reid (F.C.) and Ritson\*, equal; Crawford ‡ and Elliott ‡ and Farrell ‡ and Stewart (C.A.)‡, equal; Dixon and Hayden and Macdonald and Richardson, equal; Blankenbach † and Jones † and Papke †, equal; Craig and Davidson and Daw and McEwen and Newcombe, equal; Armstrong and Brock and Fleming \$ and Leckie ; and Knowling; and Mackenzie; equal; Alexander; Astrofsky and Dowd and Jacobs and Wilson, equal; Coates † and Stewart (E. L.); equal; Letvinoff; and Morris (R.) and Wadleigh, equal; Robertson; Duval and Heney and Peck and Wilson ‡, equal.

# (3) Geometry. (Christmas, 1907.)

Class I.—Coote and Howard and McGoun (A. F.), equal; Cunningham, Chandler †; Grimes and Morris (J. F.), equal; Cherry and McQueen and Paterson ‡ and Taylor ‡, equal; Warburton, Ritson \*, Creaghan; Boyes ; and Crawford; and Davies and Dewey and McKillican; equal; Morris (R.) and Smith (M. A.) ‡ and Wanklyn, equal; Crowell and Stone ‡, equal; Dixon ‡ and Mewburn, equal. Class II.—Argue and Beard # and Coates † and Domoney # and Farrell † and McNaughton †, equal; Selman ;, McKeen ;, Boyd ;; Currie and Irving, equal; Donald; Beckwith † and Jacobs and Lummis and MacMillan ; and Rogers ; and Wright \*, equal; Armstrong and Blankenbach † and Carr ‡ and Fletcher and Hosang ; and Hulburd and Macdonald (J. H.) and Macleod (H. E.); and Murchison and Richardson and Slack and Willett #, equal; Stewart ( .. A.) ‡, Shaw ‡, Moyse, Class III.—Macdonald (S. V.) and Robertson, equal; Walker; Cook and Elliott ‡ and Hammond and Hansen \*, and Kerry and Macdonald (D. G.) and Maclean and MacKenzie ‡ and Wil-Merry and Macdonald (D. G.) and Maclean and Mackenzie and William of the equal; Duval and VanVliet, equal; Bissett and Davidson and Papke† and Reid (F. C.), equal; McMaster, Grier; Schafheitlin and Sparling‡, equal; Livinson and MacAdam, equal; DesBrisay‡ and Dixon and Dowd and Macleod (J. V.)‡ and McGoun (G. G.) and Olmstead, equal; Henry; Hodgkinson and Larivière and Peck, equal; Hayden; Ellison (M.) and Harper‡ and Herschorn and Leckie‡ and Newcombe and Prince and Stewart (E. L.)‡, equal; Routledge, Christie; Daw and Duke ‡ and Hancock and Knowling ‡ and Roberts, equal.

# (Passed Supplemental Christmas Examination.)

Alexander ‡, Bailey, Boak ‡, Campbell, Greer, Heney, Letvinoff ‡, Lindsay ‡, Smith ‡, Tannenbaum, Wilson.

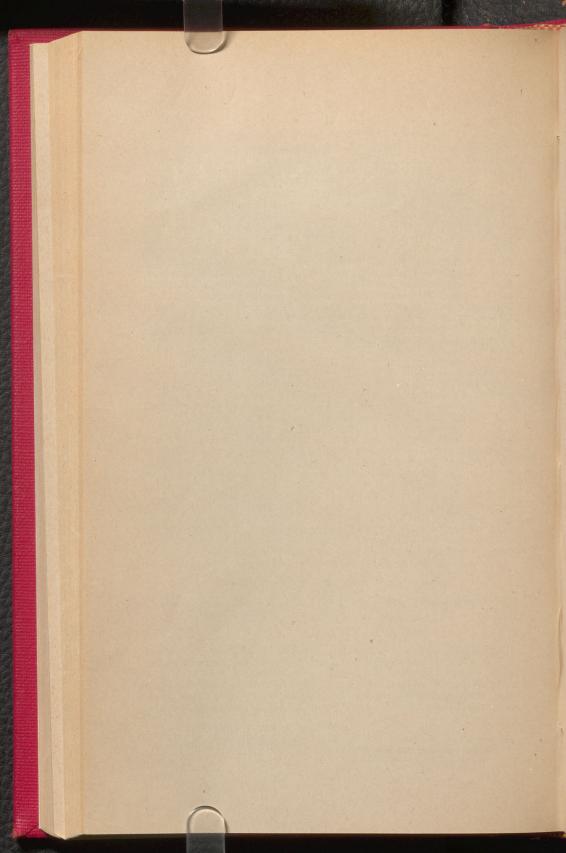
#### PHYSICS.

Class I.—Scott (A. A.), Grimes; Maxwell and Paterson-Smyth, equal; Angus, Schafheitlein, Maass, McQueen; Creaghan and McGoun (A. F.), equal; Cherry and Howard, equal; Bailey and Hammond, equal; King; Coote and Goudie and Warburton, equal; Currie; Quigley and Tannenbaum, equal. Class II.—Paterson +; Brock and Cunningham and Hayden and Murchison, equal; Armstrong and Beard ; and Bissett and

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Chandler † and Dixon, equal; Dowd and Greer and Irving and Kerry and Morris (J. F.), equal; Ross, Mewburn; Crowell and Duggan and Ritson\*, equal; Craig and Lochhead, equal; Slack, Reinhardt; Hannah and Robertson, equal; Donald and Lindsay ‡ and Olmstead and Smith (M. A.)‡, equal. Class III.—Argue; Busteed ‡ and Davidson and Larivière and Sparling ‡, equal; Macdonald (S. V.) and Taylor ‡ and VanVliet, equal; Alexander ‡ and Dewey, equal; Stone ‡, Herschorn; Carr ‡ and Mathewson and Reid (F. C.) and Wilmot ‡ and Wilson ‡, equal; Maclean and Roberts, equal; Hodgkinson and Reid (A. W.), equal; Jones † and Wilson, equal; Boyd ‡ and Willett ‡, equal; Boak ‡ and Macdonald (G. H.) and Morris (R.) and Selman ‡, equal; Duke ‡ and Ellison (M.), equal; Cook and Davies and Macleod (J. V.)‡ and Wanklyn, equal; Harper ‡ and Hulburd and Knowling ‡ and McGoun (G. G.) and Smith (P.)‡, equal; McKeen ‡ and Newcombe, equal; Macleod (H. E.)‡; Crawford ‡ and Duval and Hill and MacAdam and Routledge, equal; Calder; Blankenbach † and Boyes ‡ and Coates † and Dixon ‡ and Domoney ‡ and Erskine † and Farrell ‡ and Lummis and McEwen and Stewart (E. L.)‡ and Wadleigh, equal.

<sup>†</sup> McGill University College of British Columbia. † Victoria College, Victoria, B.C.



# SESSIONAL EXAMINATIONS

1907-1908.

# Faculty of Applied Science

FOURTH YEAR (GRADUATING CLASS).

HONOURS.

(In Alphabetical Order).

Bates, Harry Eli.—Honours in Geodesy and Theory of Structures.

Copp, Walter Percy.—British Association Medal and Prize; Honours in Designing, Geodesy, Hydraulies, and Theory of Structures.

Carmichael, Henry Graham.—Honours in Chemistry and Ore Dressing; Second Carlyle Prize.

Dawson, Victor Elliott.—Honours in Analytical Chemistry.

Dick, William Joseph.—British Association Medal and Prize; Honours in Designing and Chemistry; Sir William Dawson Fellowship in Mining; First Carlyle Prize; Allis-Chalmers Prize.

Guillet, George L.—British Association Medal and Prize; Honours in Mechanical Engineering; Fourth Year British Association Prize.

Herbert, William Henry.—British Association Medal and Prize; Honours in Electrical Engineering; British Association Exhibition.

Kenyon, L. A.—Honours in Electrical Engineering.

Lea, William Schurman.—British Association Medal and Prize; Honours in Electrical Engineering.

MacKay, Robert Moffatt.—Honours in Analytical Chemistry.

Mohan, Richard T.—Honours in Analytical Chemistry.

Nicolls, Jasper H. H.—British Association Medal and Prize; Honours in Analytical Chemistry.

Pitts, Gordon McLeod.—Honours in Theory of Structures.

Read, Herbert William.—British Association Medal and Prize; Honours in Designing, Geodesy, Hydraulics and Theory of Structures.

Scott, William Gordon.—Honours in Electrical Engineering.

Sproule, Gordon St. G.—Honours in Mining Machinery.

Vipond, William Stanley.—Honours in Electrical Engineering; Fourth Year British Association Prize.

# PASSED FOR THE DEGREE OF BACHELOR OF ARCHITECTURE.

(In Order of Merit.)

Mayers, Francis Laurie Spencer. Wood, Alexander Campbell. Ruttan, Francis Norlande.

## PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE.

(In Order of Merit.)

IN CHEMISTRY.

Nicholls, Jasper H. H. Mohan, Richard T. Dawson, Victor Elliott. MacKay, Robert Moffatt. Hayes, Albert Orion.

(Unranked.)

McFee, M. C. Coll., B. A.

## IN CIVIL ENGINEERING.

Copp, Walter Percy. Read, Herbert William. Bates, Harry Eli. Baird, John Boyd. Kingston, Lawrence B. Lighthall, Abram. Pitts, Gordon McLeod. Emmerson, Robert Henry. Mather, William A. D'Aeth, John Bancroft. Davis, Francis Mercer. Forbes, John Hunter. Holloway, Edward Stimson. Graham, John Robertson. Christie, Harold Reginald Monro. Melhuish, Paul. Stitt, Ormond M. Scott, George Edward. Kerr, Archibald. Baifantyne, Thomas Bell. Bell, Valentine Hylton. Morrow, Hugh Mervyn. Finlayson, John Norison (aegrotat).

## (Unranked.)

Canfield, Frederick O. Howe, John P. Macklem, Oliver T.

## IN ELECTRICAL ENGINEERING.

Herbert, William Harry. Lea, William Schurman. Vipond, William Stanley. Kenyon, L. Amos. Parham, John Bright. Perry, Kenneth M. Whyte, Herbert B. Trimmingham, James H. Scott, William Gordon. Mulligan, William H. Hodge, Charles Arthur. Spencer, Walter Hutchins. Pease, Edson Raymond. Raphael, Gordon Stewart. Eaton, E. Courtlandt. Cattanach, Frederick Walter Colquhoun. Sheen, Herbert L. Morrin, Arthur D. Dowell, Harry Lawrence. Ross, Donald. Richards, Edward Lorenzo. Batchelder, Charles Kelsey.

(Unranked.)

Chaplin, C. J., B. Sc.

#### IN MECHANICAL ENGINEERING.

Guillet, George LeRoy.
Whitton, Corbett Francis.
Cameron, James Somerville.
Bristol, Charles Frederick.
Killam, George.
Callaghan, John C.
Turnbull, Kenneth.
Davies, Harold Cameron.
Crocker, Stanley J.
Murphy, William Herbert.
Moore, William John.
Winslow, Edward Spragge.

(Unranked.)

Norton, Thomas J.

IN MINING ENGINEERING.

Dick, William Joseph. Carmichael, Henry Graham. Sproule, Gordon St. G. Kemp, James Colin.
Montgomery, Edgar Gordon.
Ells, S. V.
Ross, Cecil Middleton.
Campbell, Edmund E.
Carruthers, Kenneth Burpee.
Paré, Alphonse Arthur.
Harding, Winthrop K.

## RAILWAYS-THEORY AND PRACTICE.

Brooks, Charles Edward. Irwin, Robert Hamilton. Bentley, William Wallace. Martin, G. Ernest. McGuire, Gordon. Estey, J. Royden P. Pratt, Austin C.

## THIRD YEAR.

PRIZES.

(Names in Alphabetical Order.)

Campbell, William B.—Prize for General Proficiency (Department of Chemistry).

Dennis, W. Melbern.—Second Mathematical Entrance Prize; Special Prize for Railroad Location.

Fetterly, P. A.—Special Prize for Railroad Location.

Fox, C. Harry.—First McCarthy Fieldwork Prize; Special Prize for Railroad Location; Prize for General Proficiency (Department of Civil Engineering).

Johnston, Harold S.—Special Prize for Railroad Location.

Kennedy, W. Alan.—Second Mathematical Entrance Prize; Prize for General Proficiency (Department of Mining Engineering).

McKinnon, Kenneth R.—Prize for General Proficiency (Department of Mechanical Engineering).

McLean, Douglas L.—Prize for General Proficiency (Department of Civil Engineering).

O'Neill, J. J.—Special Prize for Railroad Location.

Powell, William H.—First Mathematical Entrance Prize.

Rider, Ezra B.—Special Prize for Railroad Location.

Sailman, Robert T. H.—Special Prize for Railroad Location.

Snook, J. S.—Special Prize for Railroad Location.

Yuill, Harry H.—First Prize for Summer Thesis (Department of Mining); Second McCarthy Fieldwork Prize.

# PASSED THE SESSIONAL EXAMINATIONS. (In Order of Merit.)

IN ARCHITECTURE.

Dowswell, H. R., Dutton, Ont. Fetherstonhaugh, H. L., Montreal, Que. Irwin, John W., Westmount, Que.

#### IN ARCHITECTURAL ENGINEERING.

\*McDougail, J. C.

\*Byrne, John.

## IN CIVIL ENGINEERING.

Fox, C. H., Winnipeg, Man.
McLean, D. L., Ottawa, Ont.
Johnston, H. S., Gananoque, Ont.
Smith, G. W., Montreal, Que.
Powell, W. H., Little Harbour, N. S.
Dennis, W. M., O'Leary, P. E. I.
Sailman, R. T. H., Jamaica, B. W. I.
\*Dawson, F. J., Truro, N. S.
De Lancey, J. A., Middleton, N. S.
Russell, B., Halifax, N. S.
\*Bronson, F. E., Ottawa, Ont.
Heywood, E. P., Cambridge, Mass.
Burbidge, G. H., Ottawa, Ont.
\*Anderson, S. C., Halifax, N. S.
\*Fetterly, P. A., Aultsville, Ont.
\*Allan, M. G., Perth, Ont.

#### IN ELECTRICAL ENGINEERING.

Dwight, H. B., Picton, Ont.
Lindsay, A. M., Invercargill, N. S.
McKnight, W. F., Douglastown, N. B.
Briggs, A. F. M., St. Catherines, Ont.
Allen, A. D., Wallaceburg, Ont.
\*Soper, A. J., Brockville, Ont.
Dickieson, A. L., Ottawa, Ont.
Hague, O. C. F., Montreal, Que.
\*Wilson, A., Montreal, Que.
\*Wilson, A., Montreal, Que.
\*Mulock, R. H., Winnipeg, Man.
Smith, S. M., St. John, N. B.
\*Fraser, A. N., Coaticook, Que.
\*Landry, W. A., Dorchester, N. B.
\*Edwards, G. B., Gloucester, England.
\*Briegel, W. O., Montreal, Que.
\*Dion, A. H., Ottawa, Ont.
\*Seely, R. A., St. John, N. B.
\*Allen, L. W., Haywards, Cal.
\*Gall, D. M., Lachute, Que.

<sup>\*</sup> To pass Supplemental Examination

#### IN MECHANICAL ENGINEERING.

McKinnon, K. R., New Glasgow, N. S. Ford, W. S., Winnipeg, Man. Robb, C. A., Amherst, N. S. Grove, H. S., London, England.
\*Richardson, C. E., St. Mary 's, Ont.
\*Goode, J. D., Westmount, Que.
\*Stansfield, M., Blackburn, England.

## IN METALLURGY.

Conway, E. J., Ladysmith, B. C.

#### IN MINING ENGINEERING.

Kennedy, W. A., Vancouver, B. C. Yuill, H. H., Truro, N. S. Stewart, L., Summerside, P. E. I. \*Nairn, J. S., Truro, N. S. O'Neill, J. J., Port Colborne, Ont. \*Hilborn, P. R., Berlin, Ont. Galbraith, W. J., Cap Rouge, Que. \*Snook, J. S., Truro, N. S. \*Eakins, J. M., Toronto, Ont. \*Wisdom, S., Montreal, Que. \*Winslow, R. H., Fredericton, N. B. \*Rider, E. B., Fitch Bay, Que. \*Morison, H. G., Ormstown, Que. \*Sutherland, L. H. D., Montreal, Que. \*Babson, G. L., Montreal, Que.

(Passed.)

Racey, P. W., Lennoxville, Que.

## IN PRACTICAL CHEMISTRY.

Campbell, W. B., Winnipeg, Man. Cheesbrough, A. C., Westmount, Que. \*Baillie, A. F., Montreal, Que. \*Letourneau, M., Montreal, Que.

#### IN RAILWAYS-THEORY AND PRACTICE.

Coulin, L. A., Montreal, Que. \*Ker, F. I., Montreal, Que. \*Gibb, R., Wimbledon, England.

#### SECOND YEAR.

PRIZES.

(In Alphabetical Order.)

Boright, George K.—First Prize for General Proficiency. Cowles, Eugene P.—Scott Prize of \$15.00; Prize for General Proficiency.

<sup>\*</sup> To pass Supplemental Examination

Dowie, Kenneth W.—Prize for General Proficiency. Harris, Norman C.—Scott Exhibition; First Prize for General Proficiency.

Macdonald, Jeremiah J.—Prize for General Proficiency. Sproule, Stanley M.—Scott Prize of \$25.00.

## PASSED THE SESSIONAL EXAMINATIONS.

(In Order of Merit.)

IN ARCHITECTURE.

Payne, S. G., Ottawa, Ont. Kingston, J. L., Ottawa, Ont. Paine, A. J. C., Lower Cove, Nfld. \*Blanchard, E. S., Charlottetown, P. E. I.

#### OTHER COURSES.

Harris, N. C., Melbourne, Australia. Boright, G. K., Montreal, Que. Macdonald, J. J., Vernon River, P. E. I. Cowles, E. P., Montreal, Que. Dowie, K. W., Lachine, Que. Magrath, C. B., Lethbridge, Alta. Brown, O. N., Newcastle, N. B. Sproule, S. M., Montreal, Que. Needham, R. J., London, Ont. McLeod, A. C. G., Montreal, Que. Dennis, C., O'Leary, P. E. Í. Gilchrist, T. E. Hintonburg, Ont. Cowley, A. T. N., Winnipeg, Man. Fowler, F. S., Winnipeg, Man. Cox, J. R., Montreal, Que. Cloran, J. H., Montreal, Que. McNab, L. G., Montreal, Que. McHenry, M. J., London, Ont.
Ewart, D. M., Ottawa South, Ont.
Von Pozer, C. H., Aubert Gallion, Que.
Kohl, G. H., Montreal, Que.
Beagley, T. G., Montreal, Que.
Cole, F. T., Montreal, Que. Narraway, A. M., Ottawa, Ont. \*Daubney, J. E., Ottawa, Ont.

\*MacLean, C. S., St. John, N. B.
Bennet, G. A., New Glasgow, Que.

\*Rutherford, J. R., Pictou, N. S. Vroom, H. H., St. Stephen, N. B. Clark, A. W. G., Valleyfield, Que. \*Ayer, K. R., Westmount, Que. Meek, V. M., Port Stanley, Ont. \*Timberlake, J. N., Gananoque, Ont. Dawes, A. S., Montreal, Que.

<sup>\*</sup> To pass Supplemental Examination

Fregeau, J. H., Three Rivers, Que. \*Dakin, F. W., Westmount, Que. \*Daubney, C. B., Ottawa, Ont. Reid, R. H., Sault Ste. Marie, Ont. Strong, H. R. F., Cambria, Que.

Strong, H. R. F., Cambria, Que. Macdonald, J. H., Claresholm, Alta. Dobson, A. A., Fordwich, Ont.

\*Ryley, A. St. C., Ottawa, Ont. McLeod, J. W., Pictou, N. S. \*Scott, O. H., Toronto, Ont.

\*Penney, E., Carbonear, Nfld. Ferrier, T., Gillingham, Kent, England.

\*White, M., Wheatley, Ont. \*Wyman, J. K., Rockland, Ont. \*Jackson, D. A., Montreal, Que.

\*Hollinshed, R. E. L., Barbadoes, B. W. I.

\*Archibald, M. S. E., Truro, N. S. \*Pearce, S. K., Calgary, Alta. \*Robertson, E. D., Ottawa, Ont. \*Callandar, D. W., Guelph, Ont.

\*Fox, C. A., Coaticook, Que.

\*Harrison, W. G.

\*Goodstone, A. S., Montreal, Que.
\*MacDiarmid, A. A., Covey Hill, Que.
\*Duguid, A. F., Aberdeen, Scotland.
\*Powis, G. D.

\*Elkins, R. H. B., East Orange, N. J. \*Reid, A. C., Winnipeg, Man.

\*Nares, B. L., Winnipeg, Man.

\*Macrae, J. M., Golden, B. C.

\*Maltby, Q. J., Midland, Ont.

\*Alford, J. N., Belleville, Ont.

\*Tanner, H. E., Joliette, Que.

\*Burland, G. L., Ottawa, Ont.

\*MacKay, E., Montreal, Que. \*Young, A. A., Selkirk, Man.

\*Derrom, D. L., Montreal, Que.

# (Unranked—In Alphabetical Order.)

\*Brunton, J. S. L., London, England. \*DeHart, J. B., Kensington, England. \*Hemmant, E. V., Sevenoaks, England. \*Townshend, C. S., Wolfville, N. S.

\*Wood, H. W., St. Johns, Que.

## PRIZES.

## (In Alphabetical Order.)

De Gruchy, Charles S.—Prize for General Proficiency. Garth, Charles H.—Second Fleet Prize (Shopwork). Linagh, Ronald K.—Prize for General Proficiency.

<sup>\*</sup> To pass Supplemental Examination

Morkill, Frank E.—Prize for General Proficiency.
Pope, Charles S.—Prize for General Proficiency.
Scott, Allan N.—First Fleet Prize (Shopwork).
Scrivener, Robert T.—First Prize for General Proficiency.
Staveley, Walter D.—First Fleet Prize (Shopwork).
Willis, George C.—Second Prize for General Proficiency.

## PASSED THE SESSIONAL EXAMINATIONS.

(In Order of . Merit.)

Scrivener, R. M., New South Wales, Australia. Willis, G. C., Toronto, Ont. Linagh, R. K., Maisonneuve, Que. Pope, C. A., Kenora, Ont. De Gruchy, C. S., Montreal, Que. Morkill, F. E., Lima, Peru. Oughtred, L. W., Marbelton, Que. Boast, R. G., Richmond, Que. Ray, H. P., Westmount, Que. Sankey, S. J., Wolverhampton, England. Briercliffe, H. C. D., Richland, Man. Staveley, W. D., Montreal, Que. Walcott, W. H., St. Michaels, Barbadoes, B. W. I. Wood, D. F., Westmount, Que. Richardson, C. E., Montreal, Que. Murray, G. E., Ottawa, Ont. \*Ivey, C. H., London, Ont. Archibald, E. B., Montreal, Que. Bacon, T. H., Montreal, Que. Glasmacher, W. A., Ottawa, Ont. \*Gnaedinger, C. W., Montreal, Que. \*Foster, F. W., Montreal, Que. Walker, C. P., Saskatoon, Sask. Macaulay, J. R., Westmount, Que. Falcke, J., Cape Town, S. A. Murphy, W. H., Montreal, Que. Carnwath, J., Riverside, N. B. \*Forbes, D. S., Montreal, Que. O'Leary, F. J., Laggan, Alta. Pengelley, W. C., Jamaica, B. W. I. Childe, C. G., Calgary, Alta. Hooper, J. H., North Milton, P. E. I. Brotherhood, W. C., Stratford, Ont. Forman, E. G. H., Menteith, Perthshire, Scotland. Johnston, R. L., St. John, N. B. \*Lipsey, J., Montreal, Que. Smith, W. P., Montreal, Que. Keith-Ovalle, N., Babylon, Long Island. Alward, E. T., St. John, N. B. \*Kingsley, E. R., Lindsay, Ont. Gillies, C. C., Toronto, Ont. \*Webb, E. M., Viauville, Que.

<sup>\*</sup> To pass Supplemental Examination

Irwin, W. E. C.

\*Macdonald, P. E., Hamilton, Ont.

\*Thompson, N. A., Coaticook, Que.

\*Stevenson, E. P.

\*Cushing, A., Montreal, Que. \*Willis, F. S., Montreal, Que.

Elliott, F. E.

\*Koch, E. C., Westmount, Que. \*Brebner, W. I., Georgetown, Demerara, B. G.

\*Planche, C. C., Cookshire, Que. \*Collier, H. F., Montreal, Que. \*Watson, H. M., Montreal, Que.

- \*Philips, Campbell, Westmount, Que.
- \*Stuart, G. A., Truro, N. S. Turner, W. H., Ottawa, Ont. \*Scott, A. N., Ottawa, Ont.
- \*Evans, A. J. L., Quebec, Que. \*Woodyatt, C. F. K., Brantford, Ont. \*Darling, Gordon, Montreal, Que.

\*Shanly, C. N., Montreal, Que.

## (Unranked—Alphabetically arranged.)

\*Allwood, F. H., Chapelton, Jamaica.

\*Armstrong, I. H., Montreal, Que.

\*Bisson, L., Hull, Que.

Dodd, G. J., Jamaica, B. W. I.

\*Gall, A., Montreal, Que.

\*Kelly, A. J., Edmonton, Alta.

\*Oliver, S. E., Quebec, Que.

\*Skelton, P. H., Montreal, Que. \*Turnbull, V. St. L., Montreal, Que.

#### STANDING IN THE SEVERAL SUBJECTS

## (1) STUDENTS IN ARCHITECTURE.

ARCHITECTURE (BUILDING CONSTRUCTION).

Second Year.—Class I.—Payne (S. G.). Class II.—Kingston and Paine (A. J. C.), equal. Class III.—Blanchard.

#### ARCHITECTURAL DESIGN.

Fourth Year.—Class I.—Mayers. Class II.—Ruttan, Wood. Class III.— None.

Third Year.—Class I.—Dowswell. Class II.—Fetherstonhaugh, Irwin. Class III.—None.

Second Year.—Class I.—None. Class II.—Payne (S.G.), Kingston, Paine (A. J. C.). Class III.—Blanchard.

<sup>\*</sup> To pass Supplemental Examination

# ARCHITECTURAL DETAIL (HISTORY OF).

Fourth Year.—Class I.—None. Class II.—Wood; Mayers and Ruttan, equal. Class III.—None.

Third Year.—Class I.—Dowswell, Fetherstonhaugh. Class II.—Irwin. Class III.—None.

Second Year.—Class I.—Payne (S. G.), Kingston, Paine (A. J. C.). Class II.—Blanchard. Class III.—None.

## ARCHITECTURE (DRAWING).

Third Year.—Class I.—None. Class II.—Fetherstonhaugh; Dowswell and Irwin, equal. Class III.—None.

Second Year.—Class I.—Payne (S. G.). Class II.—Kingston, Blanchard. Class III.—Paine (A. J. C.).

# ARCHITECTURAL DRAWING (HISTORY OF).

Fourth Year.—Class I.—None. Class II.—Mayers; Ruttan and Wood, equal. Class III.—None.

Third Year.—Class I.—Dowswell and Fetherstonhaugh, equal; Irwin.

Class III.—None.

Second Year.—Class I.—Paine (A. J. C.). Class II.—Kingston and Payne (S. G.), equal; Blanchard. Class III.—None.

## ARCHITECTURE (ELEMENTS OF ARCHITECTURE).

Second Year.—Class I.—Paine (A. J. C.), Kingston. Class II.—Payne (S. G.), Blanchard. Class III.—None.

## ARCHITECTURE (HISTORY OF).

Fourth Year.—Class I.—Mayers, Ruttan, Wood. Class II.—None. Class III.—None.

Third Year.—Class I.—None. Class II.—Dowswell and Fetherstonhaugh, equal; Irwin. Class III.—None.

Second Year.—Class I.—Kingston. Class II.—Paine (A. J. C.), Blanchard. Class III.—Payne (S. G.).

## ARCHITECTURE (MODERN).

Fourth Year.—Class I.—Wood. Class II.—Ruttan, Mayers. Class III.—None.

# ARCHITECTURE (ORNAMENT AND DECORATION).

Third Year.—Class I.—Fetherstonhaugh, Irwin. Class II.—Dowswell. Class III.—None.

Second Year.—Class I.—Kingston. Class II.—Paine (A. J. C.), Payne (S. G.). Class III.—Blanchard.

# ARCHITECTURE (PROFESSIONAL PRACTICE).

Fourth Year.—Class I.—Wood and Mayers, equal; Ruttan. Class II.—None. Class III.—None.

Third Year.—Class I.—Dowswell. Class II.—Fetherstonhaugh. Class III.—Irwin.

## ARCHITECTURE (PERSPECTIVE DRAWING).

Third Year.—Class II.—Irwin, Fetherstonhaugh. Class III.—Dowswell.

## ARCHITECTURE (STRUCTURAL ENGINEERING).

Fourth Year.—Class I.—Ruttan, Mayers, Wood. Class II.—None. Class III.—None.

Third Year.—Class I.—Dowswell. Class II.—Irwin. Class III.—Fetherstonhaugh.

# ARCHITECTURE (THEORY OF DESIGN).

Third Year.—Class I.—None. Class II.—Fetherstonhaugh, Irwin. Class III.—Dowswell.

## ARCHITECTURE (THESIS).

Fourth Year.—Class I.—Wood, Ruttan, Mayers. Class II.—None. Class III.—None.

Third Year.—Class I.—Fetherstonhaugh, Irwin. Class II.—Dowswell. Class III.—None.

Second Year.—Class I.—Kingston and Paine (A. J. C.), equal; Payne (S. G.). Class II.—None. Class III.—Blanchard.

## MATHEMATICS.

Second Year.—Class I.—None. Class III.—Paine (A. J. C.), Kingston, Payne (S. G.).

# (2) STUDENTS IN THE ARCHITECTURAL ENGINEERING COURSE.

## ARCHITECTURAL ENGINEERING.

Third Year.—Class I.—None. Class II.—Byrne. Class III.—McDougall.

ARCHITECTURAL ENGINEERING (BUILDING CONSTRUCTION).

Third Year.—Class I.—None. Class III.—None. Class III.—McDougall, Byrne.

## ARCHITECTURAL ENGINEERING (DESC. GEOM.).

Third Year.—Class I.—None. Class II.—None. Class III.—Byrne, McDougall.

# ARCHITECTURE (DETAIL AND HISTORY OF DRAWING.)

Third Year.—Class I.—None. Class III.—Byrne, McDougall.

## ARCHITECTURAL ENGINEERING (GRAPHICAL STATICS).

Third Year.—Class I.—McDougall. Class II.—None. Class III.—Byrne.

## ARCHITECTURE (HISTORY OF).

Third Year.—Class I.—None. Class III.—None. Class III.—Byrne, McDougall.

## ARCHITECTURAL ENGINEERING (STRUCTURAL ENGINEERING).

Third Year.—Class I.—None. Class II.—None. Class III.—Byrne and McDougall, equal.

## ARCHITECTURAL ENGINEERING (TESTING LABORATORY).

Third Year.—Class I.—None. Class III.—Byrne, McDougall.

## (3) STUDENTS IN OTHER COURSES.

#### ACCOUNTING.

Fourth Year (Transportation Course).—Class I.—Brooks. Class II.—Bentley and McGuire, equal; Martin, Irwin, Estey; Pratt and Cameron, equal. Class III.—Bristol.

## ANALYTICAL CHEMISTRY.

Fourth Year (Chemistry Course).—Class I.—Mohan, Dawson; Mackay and Nicolls, equal. Class II.—Hayes, Merrill.

Third Year.—Class I.—Campbell. Class II.—Cheesbrough and Descarries, equal; Letourneau, Baillie.

Third Year (Metallurgical Course).—Class II.—Conway.

Fourth Year (Mining Course).—Class I.—Carmichael, Dick, Montgomery.

Class II.—Carruthers, Brennan, Ells, Paré, Campbell, Ross, Kemp,
Phillips, Sproule, Harding.

## CHEMISTRY (ELECTRO).

Fourth Year.—Class I.—Lea, Parham, Vipond; Kenyon and Trimingham, equal. Class II.—Hodge; Dowell and Whyte, equal; Spencer; Eaton and Scott (W. G.), equal. Class III.—Morrin, Mulligan, Lundy, Ross (D.).

## CHEMISTRY (ELEMENTARY).

Second Year.—Class I.—Harris, Cowles, Magrath, Needham. Class II.—Boright, Dennis, Cox, Penney; Eldridge and Gilchrist and Hanson, equal; Sproule, Dowie; Brown and Macdonald (J. J.), equal; Cowley, MacLean; McNab and Reid (R. H.) and Von Pozer, equal; Robertson (E. D.), Macfarlane; McLeod (A. C. G.) and Rutherford, equal; Fowler. Class III.—Scott, (O. H.), Timberlake, White (M.); Fregeau and Vroom, equal; An-

derson and Archibald and Dakin and McDiarmid, equal; Daubney (C.B.) and Strong and Gibbins, equal; Beagley and Goodstonee and Kohl, equal; Dawes and Hollinsed, equal; Alford; Dobson and MacKay and Meek, equal; Burland and Gladman, equal; Ewart and Pope and Wyman, equal; Bennet and Callander and Fraser and Mackintosh, equal; Mauer; Cloran and Cole and Powis and Young (W.L.), equal; Elkins and Fitzpatrick and Macdonald (J.H.) and Ryley, equal; Fox and Maltby, equal; Derrom and Echenberg and Nares and Stark and Whyte (H.), equal; Robertson (H. A.) and Williams, equal; Gill (P. C.) and Narraway and Reid (A. C.), equal; Biggar; Crockett and Scott (R. W.) and Wood, equal; Clark and Duguid and Jackson and Pearce and Rolston, equal.

## CHEMISTRY (INDUSTRIAL).

Third Year.—Class III.—Campbell, Cheesbrough.

CHEMISTRY (IRON, STEEL AND WATER ANALYSIS).

Fourth Year.—Class I.—Nicolls, Mohan. Class II.—MacKay, Dawson.

## CHEMISTRY (MINERAL ANALYSIS).

- Fourth Year.—Class I.—Nicolls, Mohan, Dawson. Class II.—MacKay, Merrill, Hayes.
- Fourth Year (Mining Engineering Course).—Class I.—Carmichael, Dick. Class II.—Montgomery, Ells, Carruthers, Ross (C. M.), Campbell, Brennan, Paré, Phillips. Class III.—Sproule, Kemp, Harding.

### CHEMISTRY (ORGANIC).

Third Year.—Class I.—None. Class II.—Campbell, Cheesbrough. Class III.—Descarries.

#### CHEMISTRY (PHYSICAL).

Fourth Year.—Class I.—Dawson. Class II.—Nicolls, Mohan. Class III.
—MacKay, Merrill.

#### CHEMISTRY (PHYSICAL AND HISTORICAL).

Third Year.—Class I.—Campbell. Class II.—Cheesbrough. Class III.—Baillie, Descarries.

## CHEMISTRY (PRACTICAL PHYSICAL).

Fourth Year.—Class I.—Dawson and Mohan, equal. Class II.—Nicolls, Hayes, MacKay. Class III.—Merrill.

## CHEMISTRY (QUALITATIVE ANALYSIS).

Third Year.—Class I.—Stewart (L.), Yuill; Hilborn and Kennedy, equal; Conway, Snook. Class II.—Nairn; La Forest and O'Neill, equal; Bregent and Gillis, equal. Class III.—Rider and Winslow, equal; Galbraith, Cummins, Morison; Cantley and Phillips and Sutherland, equal; Boyd and Eakins and Wisdom, equal.

#### DESCRIPTIVE GEOMETRY.

- Third Year.—Class I.—McLean. Class II.—Smith (G. W.); Dawson and Dennis, equal; Fox and Powell, equal; Scott (O. H.); Johnston and Russell and Sailman, equal; Poissant, Heywood; Burbidge and DeLancey, equal Class III.—Bronson and Ross (C. C.), equal; Anderson, Allan (M. G.), Fetterly; Lumsden and Thorne, equal.
- First Year.—Class I.—Serivener; Willis (G. C.) and Wilson, equal; Glassmacher, de Gruchy, Richardson (C. E.), Ray, Ross, Pope; Boast and Dodd and Foster, equal; Linagh, Briercliffe, Staveley; Cushing and Forbes and Gnaedinger (C. W.), equal; Carnwath, Morkill, Ivey. Class II.—Archibald and Wood (D. F.), equal; Ovalle, Murray, Forman, Falcke, Bacon; Clark (R. B.) and Sankey, equal; Oughtred, Pengelley, Collier, Smith (W. P.); Darling and Hooper and Johnston (R. L.), equal; Brotherhood; Brebner and O'Leary, equal; Macaulay, Childe, Murphy. Class III.—Fortier and Lipsey, equal; Kingsley, Macdonald (G. H.), Philips; Allwood and McDonald (P. E.), equal; Bolton; Planche and Walker, equal; Stevenson, Webb, Watson, Koch, Elliott; Gillies and Walcott, equal; Robinson; Irwin and Turner, equal; Johnston (R. C.), Green, Stuart; Anderson (J. A.) and Scott, equal; Willis (F. S.); Alward and Armstrong and Demers and Evans and Kelly and McInnes and Oliver and Seath and Shanly and Thompson and Turnbull and Woodyatt, equal.

## DESIGNING.

- Fourth Year (Civil Engineering Course).—Class I.—Read, Kingston, Copp, Bates. Class II.—Christie, Lighthall, Baird, Mather, Holloway, Davis, Forbes, Scott (G. E.); Graham and Pitts, equal; Emmerson, Kerr, Stitt. Class III.—Morrow, Melhuish; Ballantyne and D'Aeth, equal; Baylis, Bell.
- Fourth Year (Electrical Engineering Course).—Class I.—Scott (W.G.), Kenyon, Chaplin, Vipond; Herbert and Lea and Trimingham, equal. Class II.—Lundy and Parham and Spencer and Whyte, equal; Dowell and Mulligan and Pease and Perry, equal; Eaton and Raphael, equal; Sheen, Cattanach. Class III.—Hodge and Morrin and Ross (Donald), equal; Richards.
- Fourth Year (Mechanical Engineering Course).—Class I.—Whitton.

  Class II.—Cameron; Callaghan and Killam, equal; Guillet, Turnbull, Davies, Crocker, Bristol. Class III.—Winslow; Murphy and Renaud and Zimmerman, equal; Moore, Cowan.
- Fourth Year (Mining Engineering Course).—Class I.—Dick, Ells, Sproule.
  Class II.—Kemp, Brennan, Campbell, Carruthers. Class III.—
  Ross (C. M.), Paré, Montgomery, Carmichael, Harding.

#### ECONOMICS.

Fourth Year (Transportation Course).—Class I.—Irwin. Class II.— Brooks, McGuire, Estey, Pratt. Class III.—Bentley, Martin.

Third Year (Transportation Course).—Class I.—Gibb. Class II.—Ker, Coulin.

## ELECTRICAL ENGINEERING (A.C. & A. C. MACHINERY).

Fourth Year.—Class I.—Herbert, Kenyon; Lea and Scott (W. G.), equal; Perry and White, equal; Cattanach, Trimingham, Vipond. Class II.—Dowell, Parham, Spencer, Pease. Class III.—Sheen, Mulligan, Raphael; Hodge and Morrin, equal; Eaton, Ross (D.), Richards, Batchelder, Archibald, Chaplin.

## ELECTRICAL ENGINEERING (C. C. MACHINERY).

Third Year (Electrical Engineering Course).—Class I.—McKnight; Allen (A. D.) and Dwight, equal; Dickieson. Class II.—Lindsay; Mulock and Smith (S.M.), equal; Fraser; Edwards and Wilson, equal; Soper. Class III.—Briggs, Gall, Allen (L. W.), Dion, Gomes, Landry, Hague; Briegel and Seeley, equal.

Third Year (Mechanical Engineering Course).—Class I.—McKinnon (K. R.), Robb. Class III.—Ford, Cook. Class III.—Richardson, Goode, Grove, Graham (H. M.), Grahame (D. F.); Ekers and Stansfield, equal.

#### ELECTRIC LIGHT AND POWER DISTRIBUTION.

Fourth Year.—Class I.—Kenyon, Herbert, Lea, Scott (W. G.). Class II.—Perry, Hodge, Whyte, Trimingham; Pease and Sheen and Vipond, equal. Class III.—Chaplin, Cattanach, Dowell; Mulligan and Parham, equal; Morrin, Richards; Eaton and Spencer, equal; Batchelder; Archibald and Raphael and Ross (Donald), equal.

## ELECTRIC TRACTION.

Fourth Year.—Class I.—Lea; Herbert and Kenyon, equal; Scott (W.G.) and Dowell, equal; Parham and Perry, equal. Class II.—Pease, Vipond, Whyte. Class III.—Hodge, Raphael; Mulligan and Spencer, equal; Trimingham, Cattanach, Morrin, Sheen, Eaton, Richards, Chaplin, Ross (D.), Batchelder.

#### ELECTRICAL MEASUREMENTS.

Third Year.—Class I.—Dwight, Dickieson, Soper. Class II.—Mulock, McKnight, Lindsay, Smith (S. M.), Allen (A. D.); Fraser and Green and Landry, equal; Briggs and Gall and Hague, equal; Edwards and Dion, equal. Class III.—Allen (L. W.), Chaplin, Briegel, Ross (A. C.), Trotter.

#### ELEMENTS OF ELECTRICAL ENGINEERING.

Fourth Year (Transportation Course).—Class I.—Irwin, Brooks. Class II.—Bentley, Martin, McGuire. Class III.—Pratt, Estey.

#### ENGLISH.

Fourth Year (Transportation Course).—Class I.—McGuire. Class II.—Bentley, Brooks, Estey, Irwin, Pratt. Class III.—Martin.

Third Year (Transportation Course).—Class I.—Gibb. Class II.—Coulin, Slingsby, Ker.

#### ENGLISH COMPOSITION.

First Year.—Class I.—Pope, Oughtred. Class II.—Scrivener, De Gruchy, Bacon, Childe; Boast and Dixon and Garth and Nares and Richardson (C. E.) and Scott and Thompson, equal; Alward; Linagh and Pain and Planche and Ray and Taylor and Walker, equal. Class III.—Fuller and McDonald (P. E.) and Smith (G. A.) and Stuart and Morkill, equal; Archibald and Christie and Cushing and Falcke and Gnaedinger (F. T.) and Johnson (F. H.) and Macaulay and McDonald (G. H.) and McInnes and Mallory and O'Leary and Peck and Richardson (A. I.) and Shanly and Staveley and Walcott and Willis (G. C.), equal; Kingsley; Briercliffe and Clawson and Collier and Elliott and Forbes and Irwin and Murphy and Webb and Willis (F. S.) and Wood (D. F.), equal; Austin and Lesage, equal; Bolton and Campbell and Darling and Evans and Foster and Green and Holland and Hooper and Koch and Legris (J.) and Lewis and Matheson and Phillips and Stevens, equal.

## FIRE ASSAYING.

Third Year.—Class I.—Racey, Conway. Class II.—Kennedy and Rider and Stewart (L.), equal; Nairn, Bregent, O'Neill; Raymond and Snook, equal. Class III.—Hilborn, Gillis, Galbraith; Babson and Brunton and LaForest, equal; Wisdom; Eakins and Morison and Winslow, equal; Sutherland.

#### FREEHAND DRAWING.

First Year.—Class I.—Gnaedinger (F. T.) and McDonald (P. E.) and Murphy and Oughtred and Pope and Sankey and Scott and Scrivener and Stavely, equal; Archibald and Briercliffe and Clark (R. B.) and Forbes and Linagh and Planche and Ray and Walcott and Willis (G. C.), equal; Fuller and Stuart and Willis (F. S.), equal; Foster; Cushing and De Gruchy and Keith-Ovalle, equal; Brotherhood and Smith (G. A.), equal; Elliott and Johnston (R. L.) and Kingsley and McInnes and McMaster and Matheson and Richardson (C. E.) and Webb and Wood (D. F.), equal; Bacon and Demers and Ivey and McGill and Stevenson, equal; Carnwath and Cram and Dixon and Garth and Hetherington and Lesage and Pengelley, equal. Class II.—Austin and Boast and Falcke and Forman and Gorman and Hasbrouck and Lockhart and McManus and Thompson, equal; Childe and Nares and Walker and Watson,

equal; Evans and Glassmacher and Kelly and Koch and Lipsey and Morkill, equal; Alward and Mallory and Murray and Robinson, equal; Clawson and Dennison and Gillies and Jones and Lindsay and O'Leary and Ralston and Smith (W. P.) and Wilson, equal; Logan and Macaulay and Stevens and Taylor, equal; Christie and Johnston (R. C.) and Shanly, equal; Brebner and Dodd and Lauder and Lewis and McDougall and Oliver and Phillips, equal; Collier, Holland. Class III.—Anderson (J. R.) and Fortier and Gnaedinger (C. W.), equal; Irwin and Woodyatt, equal; Bolton and Campbell, equal; Anderson (J. G.) and Barnaby and Legris (C. E.) and McDonell (F. H.), equal; Holgate and Hooper and Ross (G.), equal; Allwood and Patterson and Turner, equal; Darling and Gohier and Green and Johnson (F. H.), equal; Beaulne and Pain, equal.

#### FREIGHT SERVICE.

Third Year (Transportation Course).—Class I.—Ker. Class II.—Slingsby, Coulin, Gibb.

## GAS ANALYSIS.

Third Year.—Class I.—None. Class II.—Baillie and Campbell and Cheesbrough, equal; Letourneau. Class III.—Descarries.

#### GEODESY.

Fourth Year.—Class I.—Copp, Read, Bates, Kingston. Class II.—Lighthall, Baird, Emmerson; Davis and Graham and Stitt, equal; Forbes. Class III.—D'Aeth and Pitts, equal; Mather, Kerr; Holloway and Scott (G. E.), equal; Melhuish; Ballantyne and Bell, equal; Christie.

## GEODETIC FIELDWORK.

Fourth Year.—Class I.—Pitts, Baird; Bates and Read, equal. Class II.—Kingston, Forbes; Christie and Lighthall, equal; Copp and Emerson, equal; Ballantyne and Melhuish, equal; Finlayson and Kerr, equal; Bell, Davis; Holloway and Scott (G. E.), equal; Mather. Class III.—D'Aeth and Manny, equal; Ståvert, Graham, Stitt, Baylis.

## GEOLOGY.

Third Year.—Class I.—McLean; Powell and Smith (G. W.) and Stewart (L.), equal. Class II.—Kennedy, Fox, Rider; Campbell and Johnston, equal; De Lancey, Raymond; Nairn and Yuill, equal; Dawson and Porter, equal; Conway and Hilborn and Sailman, equal; Sutherland and Winslow, equal; Galbraith; Dennis and O'Neill, equal. Class III.—Cheesbrough, Babson, Brunton; Anderson and Lumsden, equal; Bronson and Snook, equal; Russell; Fetterly and Morison, equal; Gillis and Heywood, equal; Wisdom, Letourneau, McKinnon (J.), Dickson; Ross (C. C.) and Thorne and Bregent and Cantley and Baillie, equal.

#### GEOLOGY AND ORE DEPOSITS.

Fourth Year.—Class I.—None. Class II.—Brennan; Carmichael and Merrill, equal; Dick, Montgomery; Ells and Hayes, equal; Harding and Sproule, equal. Class III.—Ross (C. M.), Paré, Carruthers, Campbell, Kemp.

#### GRAPHICAL STATICS.

- Third Year (Civil Engineering and Transportation Courses).—Class I.—Fox, Slingsby, Coulin, Ker, Poissant; Dennis and Johnston, equal; Gibb, McLean; McDougall and Sailman, equal. Class II.—Dawson and Smith (G. W.), equal; Heywood; Burbidge and McKinnon (K. R.), equal; Powell, Anderson, Lumsden, Bronson. Class III.—Fetterly, Bayly, Thorne; De Lancey and Manny, equal; Byrne.
- Third Year (Electrical, Mechanical and Mining Engineering Courses).—
  Class I.—Grove; Kennedy and McKnight, equal; Nairn, Lindsay,
  Dwight, Hague; Allen (A. D.) and Robb and Richardson, equal;
  Hilborn and Stansfield, equal. Class II.—Green and Snook and
  Soper and Stewart (L.), equal; Allen (L. W.) and Dickieson and
  Scott and Yuill, equal; Bregent; Briggs and Cate and Ford and
  Galbraith and Mooney, equal; O'Neill; Briegel and Grahame
  (D. F.) and Mulock and Smith (S. M.), equal; Maver, Babson;
  Goode and Morison, equal. Class III.—Fraser; Cook and Sutherland and Wilson and Wisdom, equal; Brunton and Landry, equal;
  Ross (A. C.); Gillis and Winslow, equal; Boyd; Dion (A.) and
  Edwards, equal; Cantley and Ekers and Graham (H. M.), equal.

## HYDRAULICS.

- Fourth Year (Civil, Electrical and Mechanical Engineering Courses).—
  Class I.—Read, Copp, Guillet. Class II.—Sheen, Turnbull; Callaghan and Perry, equal; Bates and Herbert, equal; Pitts, Whitton;
  Baird and Bristol and Cameron and Lighthall, equal; Killam,
  Stitt; Holloway and Mather, equal; Winslow; Emmerson and
  Scott (G. E.), equal. Class III.—D'Aeth and Graham and Melhuish, equal; Kingston and Moore and Raphael, equal; Bell and
  Pease, equal; Cattanach and Crocker and Davies, equal; Christie
  and Forbes and Zimmerman, equal; Davis, Ballantyne, Kerr.
- Fourth Year (Optional in Electrical Engineering Course).—Class I.—Kenyon. Class II.—Vipond, Parham, Eaton, Lea, Whyte, Trimingham. Class III.—Mulligan, Dowell, Spencer, Morrin, Hodge, Lundy, Ross (D.).
- Fourth Year (Mining Engineering Course).—Class I.—None. Class II.—Sproule; Dick and Kemp and Montgomery and Ross (C. M.), equal; Harding, Brennan, Campbell.

#### LABORATORIES.

## A. C. Laboratory.

Fourth Year (Electrical Engineering Course).—Class I.—Herbert and Kenyon, equal; Lea and Scott (W. G.), equal; Trimingham and Vipond, equal; Perry and Whyte, equal. Class II.—Dowell and Morrin and Pease, equal; Parham and Raphael, equal; Eaton and Sheen, equal; Cattanach and Hodge and Mulligan and Spencer, equal. Class III.—Ross (Donald); Archibald and Richards, equal; Landy.

Analytical Chemistry Laboratory.

Third Year.—Class I.—Conway.

## Chemical Laboratory.

Third Year (Metallurgical Course).—Class I.—Conway.

Fourth Year (Mining Engineering Course).—Class I.—Carmichael, Dick, Montgomery. Class II.—Carruthers, Brennan, Ells, Paré, Campbell, Ross (C. M.), Kemp, Phillips, Sproule, Harding.

Third Year (Mining Engineering Course).—Class I.—Stewart (L.), Yuill; Hilborn and Kennedy, equal; Conway, Snook. Class II.—Nairn, Rider; La Forest and O'Neill, equal; Bregent and Gillis, equal. Class III.—Winslow, Galbraith, Morison; Cantley and Sutherland, equal; Boyd and Wisdom, equal.

Third Year (Organic Chemistry).—Class I.—Campbell and Cheesbrough, equal. Class II.—Descarries and Letourneau, equal; Baillie.

Third Year (Special Course).—Class III.—Cummins, Phillips, Eakins.

Second Year. - Class I. - Harris and Maclean, equal; Callander and MacDiarmid and MacNab and Von Pozer, equal; Dawes and Gladman and Cowles, equal; Alford and Beagley and Cloran and Dowie and Haultain and McLeod (A. C. G.) and Pearce, equal; Bennet and Boright and Brown and Dennis and Fox and Hollinsed and Narraway and Needham and Reid (R.H.) and Rutherford and White (M.), equal; Biggar and Bisson and Clark and Dakin and Daubney (C. B.) and Daubney (J. E) and Donald and Duguid and MacDonald (J. H.) and Timberlake, equal. Class II.—Magrath and Maltby, equal; Jackson and Meek and Wyman, equal; Derrom and Hanson and Scott (O. H.) and Strong and Young (W. L.), equal; Cole and Cowley and Cox and Echenberg and Fowler and Jones and Macfarlane and Stark, equal; Dobson and Mackay and Penney, equal; Reid (A.C.); Burland and Fregeau and Pope and Robertson (E.D.), equal; Cardinal and Sproule, equal; Kohl, and Legris (J. A.) and Vinet and Hemmant, equal. Class III .- Fitzpatrick and Millican and Wood, equal; Archibald and Macintosh and Elkins and Ewart and Gartshore and Scott (R. W.) and Vroom, equal; Crockett and Powis, equal; Goodstone and Ryley and Stuart, equal; Gilchrist, Mauer; Fraser and Williams, equal.

## C. C. Laboratory.

Third Year (Mechanical Engineering Course).—Class I.—Robb, McKinnon (K. R.). Class II.—Ford, Richardson, Maver. Class III.—Grove, Cook, Stansfield, Ekers, Goode; Graham (H. M.) and Grahame (D. F.), equal.

## D. C. Laboratory.

Third Year (Electrical Engineering Course).—Class I.—Allen (A. D.) and Mulock, equal; Wilson, Lindsay, Briggs, Dwight, Soper, Mooney, McKnight. Class II.—Seely, Allen (L. W.), Briegel, Cate, Smith (S. M.). Class III.—Green, Hague, Dickieson, Fraser; Dion and Trotter, equal; Gall, Edwards, Gomes, Landry.

## Electrical Measurement's Laboratory.

Third Year.—Class I.—Mulock, Lindsay, Dwight, Soper, Allen (A. D.), Hague. Class II.—McKnight, Dickieson; Briggs and Wilson, equal; Allen (L. W.), Landry; Green and Fraser, equal; Edwards and Smith (S. M.), equal; Trotter, Dion, Gall. Class III.—Cate, Ross (A. C.), Gomes.

## Geodetic Laboratory.

Fourth Year.—Class I.—Baird, Pitts; Copp and Lighthall, equal. Class II.—Bates and Kingston and Read, equal; Mather, Ballantyne; Christie and Kerr, equal; Emmerson and Holloway, equal; Forbes and Stitt, equal. Class III.—Bell and Scott (G. E.) and Stavert, equal; Melhuish, Davis, Graham, D'Aeth, Baylis.

## Mechanical Engineering Laboratory.

Fourth Year.—Class I.—Guillet, Turnbull. Class II.—Cameron, Whitton, Callaghan, Killam, Bristol, Davies, Crocker. Class III.—Murphy, Zimmerman, Winslow, Cowan.

## Metallurgical Laboratory.

Fourth Year.—Class I.—Phillips. Third Year.—Class I.—Conway.

## Ore Dressing and Metallurgical Laboratory.

Fourth Year.—Class I.—Carmichael, Dick. Class II.—Kemp, Carruthers; Campbell and Paré, equal; Sproule, Brennan. Class III.—Ells and Montgomery, equal; Ross (C. M.), Harding.

## Physical Laboratory.

Second Year.—Class I.—Boright, Brown, Burland, Cowles, Cowley, Dakin, Daubney (J. E.), Dawes, Dennis, Dobson, Dowie, Fowler, Gilchrist, Harris, McDiarmid, Macdonald (J. J.), McHenry, MacLean, McLeod (A. C. G.), McLeod (J. W.), McNab, Magrath, Millican, Simpson, Sproule, Von Pozer. Class II.—Alford, Archibald, Ayer, Beagley, Bennet, Biggar, Bisson, Callander, Clark, Cloran, Cole, Cox, Crockett, Daubney (C. B.), Derrom, Donald, Duguid, Echenberg, Elkins, Ewart, Ferrier, Fitzpatrick, Fox, Fregeau, Gladman, Goodstone, Hepburn, Halliday, Hanson, Haultain, Hollinsed, Jackson, Kohl, Macdonald (J. H.), Maltby, Mauer, Meek, Nares, Narraway, Needham, Pearce, Penney, Powis, Reid (R. H.), Robertson, Rutherford, Ryley, Scott (C. H.), Scott (R. W.), Stark, Strong, Stuart, Timberlake, Vinet, White (Marven), Williams, Wyman, Young (A. A.). Class III.—Cardinal, Frith, Gartshore, Jones, Macfarlane, Mackintosh, MacKay, Pope, Reid (A. C.), Vroom, Young (W. L.), Wood (J. R.).

First Year.—Class I.—Allwood, Bacon, Boast, Briercliffe, Brotherhood, Carnwath, Childe, Clark (R. B.), De Gruchy, Dixon, Dodd, Falcke, Foster, Glasmacher, Gnaedinger (C. W.), Ivey, Johnson (F. H.), Johnston (R. I.), Linagh, Lipsey, Lockhart, Macaulay, McDonald (P. E.), Morkill, Murphy, Murray, Nares, Oughtred, Keith-Ovalle, Pain, Pengelley, Pope, Ray, Scrivener, Staveley, Stevenson, Thompson, Walker, Willis (F. W.), Willis (G. C.), Woodyatt. Watson. Class II.—Alward, Anderson (J. R.), Archibald, Austin, Bolton, Brebner, Campbell, Christie, Clawson, Collier, Connolley, Cram, Cushing, Darling, Demers, Elliott, Evans Forman, Fortier, Fuller, Garth, Gillies, Gnaedinger (F. T.), Gohier, Green, Hooper, Johnston, Jones, Kelly, Kingsley, Koch, Lesage, Lewis, McDonell (F. H.), McDougall, McGill, McInnes, McMannus, Matheson, O'Leary, Oliver, Phillips, Planche, Ralston, Richardson (C. E.), Sankey, Scott (A. N.), Shanly, Smith (G. A.), Smith (W. P.), Stevens, Stuart, Taylor, Turner, Walcott, Webb, Wood. Class III.—Beaulne, Durie, Gorman, Holgate, Holland, Irwin, Lauder, Legris (C. E.), Lindsay, McMaster, Mallory, Smith, (H. F.). Passed.—Armstrong, Daw, Hasbrouck, Skelton, Turnbull.

## Testing Laboratory.

Third Year.—Class I.—Dwight; Ford and McLean, equal; McKinnon (K. R.), Hague. Class II.—Dennis and Nairn and Stewart (L.), equal; Dickieson and Fox and Johnston and Lindsay and Powell and Wilson, equal; Anderson and Fetterly and Sailman, equal; Allen (L. W.) and Hilborn and McKnight and Smith (S. M.) and Winslow, equal; Allen (A. D.) and Briggs and Cook and Galbraith and Heywood and O'Neill and Robb and Smith (G. W.) and Dion, equal. Class III.—Allan (M.G.) and Cate and Dawson and Rider and Stansfield and Trotter, equal; Gall and Grove and Soper, equal; Bronson and Gillis and Landry and Richardson (C. E.) and Sutherland, equal; Babson and Boyd and Burbidge and Byrne and Edwards and Grahame (D. F.) and Poissant and Yuill, equal;

Cantley and Conway and De Lancey and Dickson and Ekers and Goode and Graham (H. M.) and Green and Kennedy and Lumsden and McDougall and Raymond and Ross (C. C.) and Snook and Wisdom, ecual.

#### LETTERING

First Year.—Class I.—De Gruchy and Gnaedinger (C. W.) and Ivey and McDonald (P.E.) and Morkill and Ray and Staveley and Willis (G. C.), equal; Carnwath and Cushing and Forbes and Pope and Smith (G. A.), equal; Bacon and Briercliffe and Garth, equal; Murphy and Richardson (C. E.) and Scrivener, equal; Lauder; Archibald and Boast and Walker, equal; Anderson (J. R.) and Walcott, equal; Brotherhood and Childe and Fuller and Stuart and Willis (F.S.), equal; Pengelley and Scott and Wood (D. F.), equal; Alward and Elliott and Foster and Gillies and Johnston (R. C.) and Ovalle and Lockhart and McGill and Wilson, equal; Clark R. B.) and Forman and Holgate and Planche and Ralston, equal. Class II.—Dixon and Falcke and Johnston (R. L.) and Smith (W. P.), equal; Dennison and Lindsay and Oughtred and Stevenson and Watson, equal; Darling and Koch and Sankey, equal; Austin and Gnaedinger (F. T.) and Taylor, equal; Dodd and Kingsley and Webb, equal; Allwood and Barnaby and Cram and Hetherington and Linagh and Macaulay and McMannus, equal; Demers and Hooper and Nares and Shanly, equal; Johnson (F. H.) and Lipsey and McMaster and Matheson, equal; Collier and Fortier and Ross (G.), equal; Gohier and Holland and Jones and Legris (C. E.) and Lewis and Murray and O'Leary, equal. Class III.—McDougall; Kelley and Oliver and Phillips and Thompson, equal; Clawson and Irwin and McDonell (F. H.), equal; Bolton and Brebner and Stevens and Turner, equal; Gorman and Pain and Woodyatt, equal; Evans; Christie and Glasmacher and Green and Lesage, equal; Anderson (J. G.); Beaulne and Campbell and Mallory, equal.

#### MACHINE DESIGN.

Fourth Year (Electrical Engineering Course).—Class I.—Herbert and Perry, equal. Class II.—Sheen, Whyte, Vipond, Eaton, Trimingham; Kenyon and Morrin and Parham, equal. Class III.—Lea and Richards, equal; Cattanach, Hodge; Dowell and Pease and Scott, equal; Lundy and Mulligan, equal; Raphael.

Fourth Year (Mechanical Engineering Course).—Class I.—Callaghan, Guillet. Class II.—Bristol; Turnbull and Whitton, equal; Cameron, Moore, Murphy, Crocker, Norton. Class III.—Killam,

Davies, Winslow.

Third Year.—Class I.—Briggs, McKinnon (K. R.); Hague and Mulock, equal; Dwight and Ford and Lindsay and Smith (S.M.), equal; Dickieson. Class II.—Richardson, Robb, Grove, Cate; Edwards and McKnight, equal; Briegel; Goode and Landry, equal; Graham (H. M.) and Stansfield, equal; Allen (A. D.); Grahame (D. F.) and Wilson, equal; Allen (L. W.) and Fraser, equal; Dion. Class III.—Cook, Ross (A. C.), Ekers, Soper, Gall, Green, Seely.

#### MAPPING.

Third Year (Civil Engineering Course).—Class I.—Johnston, McLean. Class II.—Fox; Russell and Smith (G. W.), equal; Dawson; Dennis and Heywood and Sailman, equal; Frith; Burbidge and Poissant, equal; Bronson and Scott, equal; Gosselin and Powell, equal. Class III.—Dickson, Lumsden; De Lancey and Fetterly, equal; Anderson, Bayly.

Third Year (Mining Engineering Course).—Class I.—Galbraith. Class II.
Gillis and Rider and Snook, equal; Kennedy, Nairn; Morison and O'Neill, equal; Hilborn; Babson and Bregent and Raymond, equal; Wisdom and Yuill, equal. Class III.—Stewart (L.), Boyd, Cantley; Sutherland and Winslow, equal; Brunton.

Third Year (Transportation Course).—Class I.—Slingsby, Coulin. Class II.—Ker, Gibb.

Second Year.-Class I.-McLeod (A. C. G.), Sproule; Archibald and MacLean, equal; Boright and Cox and Vinet, equal; Fox and MacDiarmid and Macdonald (J. J.) and McNab and Meek and Nares, equal. Class II.—Magrath and Rutherford and Simpson, equal; Callander and Cowles and Fowler, equal; Alford and Dakin and Dowie and Hollinsed and Jackson and Pearce and White (M.), equal; Brown and Clark (A. W. G.) and Dawes and Derrom and Dobson and Duguid and Stuart and Timberlake and Vroom, equal: Cloran and Daubney (J. E.) and Kingston and McHenry and McLeod (J. W.) and Millican, equal; Ayer and Bennet and Brunton and Burland and Elkins and Needham, equal; Biggar and Dennis and Hanson and Harris and Maltby, equal; Ferrier and Fraser and Fregeau and Gartshore and Gilchrist and Powis and Rvley and Strong, equal; Bisson and Cowley and Crockett and Daubney (C. B.) and Ewart and Haultain and Robertson (E. D.) and Von Pozer, equal; Paine (A. J. C.) and Reid (R. H.) and Scott (R. W.) and Stark and Wyman, equal. Class III.—Donald and Narraway and Pope, equal; Cole and Fitzpatrick and Macdonald (J. H.) and Macfarlane, equal; de Hart and Gladman and Reid (A. C.), equal; Cummins and Halliday and Kohl, equal; Little and Payne (S. C.) and Young (A. A.), equal; Beagley and Legris (J. A.), equal.

#### MATERIALS OF CONSTRUCTION.

Second Year.—Class I.—Macdonald (J. J.), Derrom, Cowles, Harris; Burland and McLeod (A. G.), equal. Class II.—Magrath; Boright and Hemmant, equal; Halliday; Dennis and Fowler and Sproule, equal; Brown and De Hart and Mackay and Vroom, equal; Beagley and Cox and Hollinsed and McNab, equal; Dakin and Dowie and McHenry and McLeod (J. W.) and Simpson, equal; Brunton and Daubney (J. E.) and Fregeau, equal; Ayer and Ewart and Hanson and Von Pozer, equal; Cowley and Dobson and Elkins and Gilchrist and Reid (A. C.), equal. Class III.—Cloran and Donald and Gartshore and Nares and Rutherford and Williams, equal; Kohl and Maltby and Penney and Young (A. A.), equal; Ferrier and Needham, equal; Daubney (C. B.) and Dawes and Powis and

Scott (R. W.) and Stuart (H. M.) and Young (W. L.), equal; Archibald and Fraser and Narraway and Reid (R. H.), equal; Clark (A. W. C.) and Frith and Jackson and Macdonald (J. H.) and Pearce and White (M.), equal; Bennet and Callander and Robertson and Wood (J. R.), equal; Biggar and MacDiarmid and Strong and Wyman, equal; Duguid and Echenberg and Goodstone and Hepburn and Ryley and Stark, equal; Fitzpatrick and Fox and Macfarlane and Mauer and Meek and Popham and Timberlake, equal.

## MATHEMATICS.

# Calculus and Analytic Geometry.

Third Year.—Class I.—Dwight, Powell, Ford, Landry; Briggs and McKinnon (K. R.) and McLean, equal; Kennedy, Sailman, McKnight, Lindsay. Class II.—Dennis, Fox, Johnston (H. S.); Allen (A. D.) and Stewart (L.), equal; Allan (M. G.) and De Lancey, equal; Dickieson and Yuill, equal; Fraser and Wilson, equal; Graham (H. M.) and Ross (C. C.), equal; O'Neill, Drysdale; Burbidge and Dawson and Dickson and Nairn and Robb and Snook, equal. Class III.—Hague, Smith (S. M.); Anderson and Briegel and Lumsden and Morison, equal; Soper; Emmerson and Heywood and Smith (G. W.), equal; Galbraith, Goode; Gall and Poissant, equal; Rider, Bronson, Winslow; Gillis and Mulock, equal; Hilborn, Stansfield, Grove; Dion and Edwards and Gomes and Maver and Raymond and Richardson and Russell and Sproule and Sutherland and Trotter and Wisdom, equal.

## Mechanics.

Third Year.—Class I.—McLean, Kennedy, Fraser, Fox, Burbidge; Briggs and Dennis and Dwight and McKinnon (K.R.) and Ford, equal. Class II.—Smith (G.W.), Sailman, Allen (A.D.), Allan (M.G.), Hague, Morison, O'Neill; De Lancey and Powell and Yuill, equal. Class III.—Stewart (L.), Heywood, Nairn; Johnston (H.S.) and Sutherland, equal; Hilborn and Trotter, equal; Mulock and Lindsay, equal; Dickieson and Grove, equal; Fetterly and Galbraith and Goode and Graham (H.M.) and Landry and Snook and Wilson and Wisdom, equal.

## Analytical Geometry.

Second Year.—Class I.—Macdonald (J. J.) and Fowler and Cowley and McHenry, equal; Dowie and Magrath, equal; Beagley and Brown and Ewart and Rutherford, equal; Sproule, Dennis; Ayer and Boright and McFee and Needham, equal; McLean; Harris and Hepburn and Narraway, equal; Whyte (H. E.), Daubney (J. E.); Cloran and Gilchrist, equal; Macdonald (J. H.); Clark and Dakin, equal; Cole and Cox and Gill and Pope, equal; Penney. Class II.—Bennet and McLeod (J. W.) and Von Pozer, equal; Gibbins, Jackson; Cowles and Dawes and Eldridge, equal; Daubney (C. B.) and Scott (R. W.), equal; Alford and McNab, equal;

Kohl and Strong and Timberlake, equal; Young (A. A.); Anderson (P.) and Maltby and Ryley, equal; De Hart and Ferrier and Frith, equal; Blanchard (C. P.); Elkins and Scott (O. H.) and Meek and Irwin, equal. Class III.—Mackay and Popham and Powis, equal; Donald and Jones, equal; Fregeau and McLeod (A. C. G.), equal; Dobson; Nares and Young (W. L.), equal; Fraser; Fitzpatrick and Goodstone, equal; Hollinsed and Wyman, equal; Burland and Callender, equal; Vroom; Crockett and Stuart, equal; Archibald and Pearce and Robertson (E. D.) and Stark, equal; Scott (F. H.); Derrom and Fox and Gladman, equal; Gooding and Mauer, equal; Haultain and Reid (R. H.) and Williams, equal; Shearer and Rolston, equal.

#### Calculus.

Second Year.—Class I.—Harris, Boright. Class II.—McHenry; Gill and McDonald (J. J.), equal; Cloran; Ferrier and Gilchrist and Magrath, equal; Needham, Sproule; Ayer and Cowles and Dowie and Ewart and McLeod (J.W.), equal; Brown; Dennis and Rutherford, equal; Beagley and Cole and Eldridge and Kohl and Narraway, equal. Class III.—De Hart and Fowler, equal; McFee; Daubney (C. B.) and Daubney (J. E.), equal; McLeod (A. C. G.; Clark (A. W. G.) and Von Pozer, equal; Dakin, Cowley, Gibbins; Dawes and Scott (O. H.) and Anderson and Whyte (H. E.), equal; Bennet and Melean and Meek and Slingsby, equal; Vroom; Hepburn and Timberlake, equal; Penney and Robertson (E. D.), equal; Dobson and Jackson, equal; Macdonald (J. H.) and Pope and Stuart, equal; Ryley; Burland and Cox and Fregeau and Frith and Goodstone and Haultain and McNab and Popham and Reid (A. C.) and Reid (R. H.) and Scott (R. W.) and Strong and Young (A. A.), equal.

## Mechanics.

Second Year.—Class I.—Dowie, Harris. Class II.—Ayer, De Hart, Ferrier, Boright, McHenry, Macdonald (J.), Brown; Cowley and Daubney (J. E.), equal; Cox, Dakin; Cloran and Cowles, equal; Magrath; Dennis and Fowler and Gilchrist and Needham and Sproule, equal. Class III.—Kohl; Bennet and McLeod (A. C. G.), equal; Von Pozer, Beagley, Clark; Brunton and Ewart and McFee and Meek, equal; Gill; Narraway and Vroom and Whyte (H. E.), equal; Goodstone and McLeod (J. W.), equal; Penney; Fox and McNab, equal; Dawes and Dobson and Hollinsed, equal; Alford and Daubney C. B.) and Pearce, equal; Cole and Donald and Mauer and Ryley and Strong, equal; Anderson and Archibald and Duguid and Eldridge and Fregeau and Jackson and Macdonald (J. H.) and Reid (R. H.) and White (M.) and Williams and Heywood, equal.

## Algebra.

First Year.—Class I.—Linagh, Willis (G.C.). Class II.—Serivener, Walcott; Morkill and Sankey, equal; Boast and Murray, equal; Foster and Ivey, equal; Munro, Oughtred; Briercliffe and Lipsey,

equal; De Gruchy; Galloway and Johnston (R. L.) and Smith (W. P.), equal. Class III.—Walker; Falcke and Irwin and Thompson, equal; Archibald and Bisson and Glasmacher and Stevenson, equal; Forman and Nares and Wood (D. F.), equal; Pope; Keith-Ovalle and Richardson (C. E.), equal; Childe and Gnaedinger (C. W.), equal; Gillies; Bacon and Brebner, equal; Woodyatt, Macaulay; Forbes and Pengelley, equal; Brotherhood; Carnwath and Kingsley and Skelton, equal; Fortier and McDonald (P. E.) and Turnbull and MacKinnon, equal; Hooper and Lockhart, equal; Brydone-Jack and Clark (R. B.) and Staveley, equal; O'Leary; Alward and Cram and Johnson (F. H.) and Koch and Murphy and Phillips and Ray and Shanly and Turner and Watson and Underhill, equal.

## Dynamics.

First Year.—Class I.—Linagh, Scrivener; Willis (G. C.) and Munro, equal; Sankey; Walcott and Ray and Morkill, equal; Ivey. Class II.—Murray, Galloway, Pope, Clark (R. B.), Pengelley, De Gruchy, Oughtred, Johnson (F. h.); Staveley and Walker, equal; Bacon and Gnaedinger (C.W.), equal. Class III.—Kelly; Cushing and Stevenson, equal; Green and Lipsey, equal; Murphy and Richardson (C. E.), equal; Falcke, Glasmacher, Hooper, McKinnon; Scott and Gillies, equal; Boast and Briercliffe and Carnwath, equal; Armstrong and Evans and Woodyatt, equal; Robinson and Smith (G. A.), equal; Irwin; Brotherhood and Johnston (R. C.) and Turner, equal; Elliott and Forbes and Johnston (R. L.) and Nares and O'Leary and Willis (F. S.), equal; Bisson and Childe and Gall and Wood (D. F.), equal; Kingsley and Smith (W. P.), equal; Archibald and Forman and Holland and Matheson, equal; Alward and McInnes, equal; Clawson and Foster and Fuller, equal; Garth and Koch and Legris (J. A.) and Macaulay and Turnbull and Webb, equal.

## Geometry.

First Year.—Class I.—Scrivener and Willis (G.C.), equal; Linagh; Murray and Sankey and Walcott, equal; Pope; Staveley and Galloway, equal; Oughtred; Richardson (C. E.) and Wood (D. F.) and Morkill, equal. Class II.—Munro, O'Leary, Glasmacher, Murphy; Collier and Ray, equal; Otiver, De Gruchy, Walker, Ivey; Hooper and Forbes and Briercliffe, equal; Gnaedinger (C. W.) and McKinnon, equal; Lipsey. Class III.—Boast; Macaulay and Pengelley, equal; Willis (F.S.), Stuart; Brotherhood and Carnwath and Cushing and Gillies, equal; Gall; Koch and Smith (G. A.) and Shanly, equal; Brydone-Jack and Matheson and Ovalle and Webb, equal; Evans and Johnson (F. H.) and Stevenson, equal; Archibald and Childe and Underhill, equal; Woodyatt and Brebner, equal; Clark (R. B.); Elliott and Irwin and Thompson, equal; Cram; Robinson and Smith (W. P.) and Watson and Seath, equal; Turner and Phillips and Falcke and Armstrong, equal; Holland and Johnston (R. L.) and Johnston (R. C.) and Scott, equal; Planche and Nares and Gorman and Forman and Bacon and Alward, equal.

## Trigonometry.

First Year.—Class I.—Scrivener, Linagh, Willis (G.C.), Walcott. Class II.—Foster, Boast, Murray, Sankey; Gnaedinger (C.W.) and Ivey and Oughtred, equal; Morkill and Wood (D.F.), equal; Briercliffe and Glasmacher, equal; Munro and Pengelley, equal; Lipsey and Galloway, equal; Macaulay and Byrdone-Jack, equal; Pope; Archibald and O'Leary, equal; Brebner, Brotherhood; De Gruchy and Hooper and MacKinnon, equal. Class III.—Falcke and Keith-Ovalle and Smith (W.), equal; Johnston and Ray and Watson, equal; Boyd and Kingsley, equal; Oliver, Walker; Carnwath and Gillies and Underhill, equal; Cram; Bacon and Irwin and Webb, equal; Macdonald (P. E.) and Skelton, equal; Murphy and Stuart, equal; Forman and Duguid, equal; Collier and Gall, equal; Childe and Lockhart and Turner, equal; Willis (F.); Kelly and Richardson (C.), equal; Elliott and Alward and Lesage and Planche and Thompson, equal; Clark (J.B.) and Darling and Holland and Phillips and Ralston and Staveley, equal.

#### MECHANICAL DRAWING.

- Third Year (Electrical Engineering Course).—Class I.—None. Class II.—Wilson and Lindsay, equal; Green, Hague, McKnight. Class III.—Dickieson, Allan (A.D.), Briggs, Smith (S.M.); Mooney and Soper, equal; Trotter, Edwards, Ross (A.C.); Fraser and Cates, equal.
- Third Year (Mechanical Engineering Course).—Class I.—Robb. Class II.
  —Richardson (C. E.), McKinnon; Ford and Stansfield, equal;
  Grove. Class III.—Goode, Grahame (D.), Ekers, Cook, Vessot.
- Third Year (Mining Engineering Course).—Class I.—None. Class III.—Hilborn, Galbraith, Conway; Stewart (L.), and Morison, equal; O'Neill and Brunton and Yuill, equal; Babson and Kennedy and Raymond and Rider, equal; Gillis and Snook, equal.
- Second Year .- Class I .- Boright, Sproule. Class II .- Brown and Macdonald (J. J.), equal; MacLean and Fox and Meek, equal; Mc-Leod (A. C. G.); Daubney (J. E.) and Needham, equal; Mac-Diarmid and Derrom and Dennis, equal; White (M.) and Alford, equal; McHenry and Archibald and McLeod (J. W.) and Magrath, equal; Frith and Millican, equal. Class III.—Dawes and Powis and Callander, equal; Cole and Cox and Hollinsed and Cowles and Pearce and Bisson and Donald and Duguid, equal; Ayer and Clark (A. W. G.) and Ferrier and Timberlake and McNab and Maltby and Nares and Skelton and Simpson, equal; Cowley and Gartshore and Hanson and Harris and Jackson and Narraway and Reid (R. H.) nd Stark and Stuart and Burland and Daubney (C.B.), equal; Cloran and Ewart and Goodstone and Rutherford and Beagley and Reid (A.C.) and Vroom and Young (W.L.), equal; Bennet and Brunton and Fowler and Fregeau and Halliday and Haultain and MacDonald (J. H.), and Von Pozer, equal; Crockett and Macfarlane and Mauer and Robertson (E.D.) and De Hart and Kohl and Legris (J. A.) and Ryley and Wood (J. R.),

equal; Fraser and Strong and Young (A.A.) and Gilchrist and Popham, equal; Gladman and Wyman and Allwood and Echenberg and Biggar and Seath, equal.

#### MECHANICAL ENGINEERING. .

Fourth Year (Civil, Electrical and Mining Engineering Courses).—Class I—Bates; Herbert and Whyte, equal . Class II.—Copp, Vipond; Sheen and Lea, equal; Baird and Carmichael and Parham and Perry and Sproule and Trimingham, equal; Kingston; Dick and Dowell and Finlayson and Mather and Read, equal; Christie and Holloway, equal; Campbell and Emmerson and Kemp and Scott (W.G.), equal; Lighthall and Pitts and Stitt, equal. Class III.—Davis, Kenyon; Carruthers and Cattanach and Lundy and Mulligan and Pease and Raphael, equal; D'Aeth and Brennan and Eaton and Graham, equal; Spencer; Ells and Harding and Hodge and Melhuish, equal; Morrow; Baylis and Montgomery and Phillips and Ross (C. M.), equal; Ballantyne and Bell and Forbes and Kerr and Morrin and Paré and Richards and Ross (D.) and Stavert, equal.

Fourth Year (Mechanical Engineering Course).—Class I.—Guillet, Cameron, Turnbull, Whitton. Class II.—Bristol, Killam, Winslow; Callaghan and Murphy, equal; Davies. Class III.—Cowan, Crock-

er, Moore, Renaud.

#### MECHANICS OF MACHINES.

Fourth Year.—Class I.—None. Class II.—Guillet, Killam; Turnbull and Whitton, equal. Class III.—Cameron, Bristol, Callaghan, Davies, Crocker, Winslow; Cowan and Murphy, equal; Moore.

Third Year.—Class I.—Dwight, Robb, McKnight; Allen (A. D.) and McKinnon (K. R.), equal. Class II.—Ford, Smith (S. M.), Allen (L. W.); Hague and Mulock, equal; Wilson and Briggs, equal; Edwards and Fraser, equal; Goode and Lindsay, equal; Soper. Class III.—Cate, Grove, Ekers; Dickieson and Trotter, equal; Cook; Landry and Stansfield, equal; Grahame (D. F.), Gall, MacKay (G. H.).

Second Year.—Class I.—Boright, McLeod (A. C. G.), Macdonald (J. J.), Cowles, Dowie; Gilchrist and White (M.), equal. Class II.— MacKay, Gill; Cloran and Cox and Hemmant, equal; Cole; Brunton and Dobson and McNab, equal; Fowler and McHenry, equal; Brown and Cowley and Wyman, equal; Daubney (J. E.) and Sproule, equal; Dakin and Needham, equal; Dennis, Narraway, Elkins; Ayer and Ryley and Vroom and Whyte (H. E.), equal; Slingsby; Kohl and Von Pozer, equal; Ewart and Ferrier, equal; Archibald and Pearce and Strong and Eldridge, equal. Class III.—Reid (R. H.) and Stuart, equal; Allen (L. W.) and De Hart and Fregeau and Hanson and McLeod (J. W.) and Magrath and Timberlake, equal; Meek, Clark; Dodd and Macdonald (J. H.) and Reid (A. C.), equal; Bennet and Donald, equal; Powis and Wood (J. R.), equal; Gibbins and Halliday and Hollinsed and

MacDiarmid and Popham and Robertson (E. D.), equal; Nares and Rutherford and Young (A. A.), equal; Anderson and Fox and Goodstone, equal; Macfarlane; Duguid and MacLean and Maltby and Simpson, equal; Cummins and Dawes and Echenberg and Haultain and Vinet, equal; Beagley, Gladman; Callander and Derrom and Lomer and Young (W. L.) and Shearer, equal.

Supplementals (Mechanics of Machines). — Passed. — Bentley, Tanner Townshend.

#### METALLURGY.

- Fourth Year (Metallurgical Course).—Class I.—None. Class II.—Phillips.
- Third Year (Chemistry and Mining Courses).—Class I.—Cantley; Cheesbrough and Kennedy and Wisdom, equal; Stewart (L.); Campbell and Hilborn and Yuill, equal. Class II.—O'Neill and Rider, equal; Baillie and Nairn and Snook, equal; Babson, Conway, Eakins, Gillis, Fitzgerald; Boyd and Letourneau, equal. Class III.—Raymond; Brunton and Galbraith and Sutherland, equal; Bregent, Morison, Descarries; La Forest and Winslow, equal.
- Third Year (Metallurgical Course).—Class I.—None. Class II.—La Forest, Conway.

## METALLURGY OF COPPER AND LEAD.

Fourth Year.—Class I.—Brennan, Carmichael. Class II.—Sproule, Campbell; Dick and Ells, equal; Kemp and Montgomery, equal. Class III.—Paré and Carruthers, equal; Phillips and Ross (C. M.), equal; Harding.

#### METALLURGY-ELECTRO.

Fourth Year.—Class I.—Sproule. Class II.—Ross (C. M.); Carmichael and Paré, equal; Campbell and Kemp, equal; Brennan and Ells, equal. Class III.—Harding; Dick and Montgomery, equal; Carruthers and Phillips, equal.

## METALLURGY OF IRON AND STEEL,

Fourth Year.—Class II.—Ells, Dick, Carmichael; Brennan and Sproule, equal. Class III.—Paré, Harding; Kemp and Campbell, equal; Montgomery; Carruthers and Ross (C. M.), equal.

## MINERALOGY.

- Fourth Year.—Class I.—Nicoll, McFee. Class II.—Carmichael and Ross (C. M.), equal; Dawson and Mohan, equal; Porter; Sproule and Merrill, equal; Ells, Hayes. Class III.—Mackay, Dick; Campbell and Montgomery, equal; Kemp, Brennan; Carruthers and Phillips, equal; Paré, Harding.
- Third Year.—Class I.—Stewart (Leighton), Racey, Campbell, Yuill.

  Class II.—Nairn, Kennedy, Phillips; Rider and Snook, equal;
  Conway, Bregent; Brunton and Winslow, equal; La Forest. Class

III.—Eakins and O'Neill, equal; Babson and Cheesbrough, equal; Hilborn and Porter, equal; Galbraith; Baillie and Morison, equal; Descarries and Sutherland, equal; Letourneau, Raymond, Wisdom, Cantley, Gillis.

#### MINERALOGY. - DETERMINATIVE.

Third Year.—Class I.—Yuill, Brunton. Class II.—Winslow, Stewart (Leighton), Rider, Cheesbrough; Babson and Baillie and Campbell (W. B.) and Conway and Hilborn, equal; Descarries and Sutherland, equal; Galbraith, Letourneau; La Forest and O'Neill and Racey, equal; Snook. Class III.—Gillis and Kennedy, equal; Fitzgerald, Cantley; Boyd and Cummins and Eakins and Raymond, equal; Wisdom; Morison and Nairn, equal.

## MINING ENGINEERING.

Fourth Year.—Closs I.—Ells, Brennan. Class II.—Dick, Montgomery, Sproule, Carmichael, Campbell, Ross (C. M.), Kemp. Class III.—Carruthers, Harding, Paré.

#### MINING FIELD WORK.

Fourth Year.—Class I.—Dick. Class II.—Carruthers and Kemp, equal; Paré and Ross (C. M.) and Sproule, equal; Montgomery; Campbell and Carmichael, equal; Brennan, Harding.

## MINING MACHINERY.

Fourth Year.—Class I.—Sproule, Dick. Class II.—Carmichael, Kemp, Ells, Paré, Brennan, Ross (C. M.), Montgomery. Class III.—Carruthers, Campbell, Harding.

#### MUNICIPAL ENGINEERING.

- Fourth Year.—Class I.—Read, Kingston, Lighthall; Bates and Copp, equal. Class II.—Baird and Pitts and Stitt, equal; Holloway; Emmerson and Mather, equal; Ballantyne; Forbes and Graham and Kerr, equal; Scott (G. E.). Class III.—Davis, Christie, Melhuish, D'Aeth, Bell.
- Third Year.—Class I.—De Lancey. Class II.—McLean and Smith (G. W.), equal; Fox and Johnston, equal; Powell; Anderson and Dawson, equal; Bronson and Burbidge and Fetterly and Thorne, equal; Dennis. Class III.—Lumsden and Russell, equal; Sailman; McKinnon and Heywood, equal; Allan (M.G.) and Dickson, equal; Ross (C.C.); Bayly and Manny, equal.

#### OPERATING.

Fourth Year.—Class II.—Brooks, Irwin, Bentley, McGuire, Martin. Class III.—Pratt, Estey.

#### ORE DRESSING.

- Fourth Year.—Class I.—Carmichael, Brennan. Class II.—Kemp, Sproule, Dick. Class III.—Campbell, Ells, Montgomery, Carruthers, Ross (C. M.), Paré, Harding.
- Third Year.—Class I.—Galbraith, Racey, Kennedy; Hilborn and Yuill, equal. Class II.—Wisdom, Nairn, Stewart (L.), O'Neill, Morison. Class III.—Brunton, Cantley; Raymond and Snook, equal; Conway and Rider and Sutherland, equal; Babson and Eakins, equal; Bregent; Gillis and Winslow, equal; Boyd.

#### PASSENGER SERVICE.

Fourth Year (Transportation Course).—Class I.—McGuire, Estey. Class II.—Martin, Bentley, Irwin, Brooks. Class III.—Pratt.

#### PETROGRAPHY.

Fourth Year.—Class I.—Carmichael. Class II.—Brennan, Sproule, Kemp; Montgomery and Hayes, equal; Dick, Carruthers, Ross (C. M.), Campbell, Harding. Class III.—Ells, Paré, Eakins.

#### PHYSICS.—ELECTRICITY AND MAGNETISM.

Second Year.—Class I.—Boright, Cowles, Dowie, Fowler, Magrath; Gilchrist and Macdonald (J. J.), equal; Eldridge; Harris and Needham and Gill, equal. Class II.—Dennis; Cowley and McHenry, equal; Cox and Sproule, equal; Brown and McLeod (A. C. G.), equal; Ayer, Timberlake; Dakin and Kohl, equal; Cloran; Bennet and Rutherford, equal; Whyte (H. E.) and Ewart, equal; Gibbins and Beagley and Fregeau and MacKay and Scott (O. H.), equal; Daubney (J. E.) and McLeod (J. W.), equal; Narraway and White (M.), equal. Class III.—Cole and McNab and Reid (A. C.), equal; Dobson and Scott (R. W.) and Simpson and Vroom, equal; Charters and Daubney (C. B.) and Robertson (E. D.) and Von Pozer, equal; Reid (R. H.); Macdonald (J. H.), Meek; Duguid and Nares and Ryley and Stuart, equal; Anderson and Biggar and Ferrier and Strong, equal; Derrom and Penney, equal; Elkins and Fox and Hanson, equal; Callander and Clark (A. W. G.) and McDiarmid and Powis and Wyman, equal; Archibald and Crockett and Hepburn, equal; Dawes, Young (A. A.); Donald and Haultain and Hollinsed and Macfarlane and McLean and Maltby and Rolston, equal; Burland and Jackson, equal; Alford and Gladman and Halliday, equal; Goodstone and Williams and Shearer, equal.

## PHYSICS.

First Year.—Class I.—Serivener, Macaulay, Pope; Linagh and Murray, equal; Dodd; Morkill and Sankey and Willis (G. C.), equal; Forman; Carnwath and Wood (D. F.), equal; Clark (R. B.) and Munro, equal; Oughtred. Class II.—Boast, Staveley, Glasmacher; Foster and Johnston (R. L.) and McDonald (P. E.), equal; Archibald and De Gruchy and Hooper, equal; Bacon; Brotherhood

and Forbes and Gnaedinger (C. W.) and Murphy and Galloway, equal; Briercliffe, Ivey, Ovalle; Robinson (D. S.) and Smith (W. P.) and Stevenson, equal; Ray, Brebner; Fortier and Walker, equal; Alward and Richardson, equal; Garth and O'Leary and Webb and Irwin, equal; Childe and Elliott and Pengelley and Walcott, equal. Class III.—Thompson and Watson, equal; Johnson (F. H.); Evans and Falcke and Gillies and Skelton, equal; Armstrong and Johnston (R. C.), equal; Darling, Bolton; Anderson (J. R.) and Planche, equal; Kock; Collier and Kingsley and Oliver, equal; MacKinnon and Matheson, equal; Dixon; Allwood and Holland and McInnes and Phillips and Stuart, equal; Austin and Fuller and Turner, equal; Turnbull; Campbell and Christie and Lipsey, equal; Smith (G. A.); Lauder and Legris (C. E.), equal; Anderson (J. G.) and Demers and Gall and Green and Shanly and Hasbrouck and Taylor, equal; Willis and Woodyatt, equal; Kelly and McMannus and Mallory, equal.

#### PHYSIOGRAPHY AND CLIMATOLOGY.

Fourth Year (Transportation Course).—Class I.—Brooks. Class II.— Irwin, Bentley, McGuire. Class III.—Pratt, Martin, Estey.

#### PHYSIOGRAPHY AND PRACTICAL GEOLOGY.

Fourth Year.—Class I.—Brennan and Hayes, equal; Dick. Class II.—Montgomery, Ross (C. M.), Ells, Merrill; Carmichael and Paré and Sproule, equal; Harding, Campbell. Class III.—Carruthers, Kemp.

#### PRACTICAL ASTRONOMY.

Third Year.—Class I.—Kennedy, Powell, Johnston; Dennis and Fox, equal; McLean. Class II.—Scott (O. H.), Smith (G. W.), Heywood; De Lancey and Yuill, equal; Dawson; O'Neill and Russell and Stewart (L.), equal; Morison. Class III.—Sailman, Galbraith, Bregent; Babson and Nairn and Drysdale, equal; Allan and Anderson and Snook and Sutherland, equal; Burbidge, Lumsden.

#### RAILWAY ENGINEERING.

- Fourth Year.—Class I.—Bates, Irwin, Read, Lighthall. Class II.—Brooks, Kerr; Copp and Forbes, equal; Bentley, Martin, Graham; Bell and Stitt, equal; Baird and Christie, equal; Kingston and Emmerson and Mather, equal; Holloway, Pratt, Baylis, Scott (G. E.); Estey and McGuire and Pitts and Davis, equal; Morrow. Class III.—D Aeth, Melhuish, Ballantyne.
- Third Year (Civil and Transportation Courses).—Class I.—Coulin, Johnston, Smith (G. W.). Class II.—Fox, Gibb, Ker, McLean, Powell, Burbidge, Dennis; Sailman and Slingsby, eoual; Poissant. Class III.—Bronson, De Lancey; Dawson and Dickson, equal; Heywood, Russell; Scott and Fetterly, equal.

Third Year (Mining Course).—Class I.—None. Class II.—Yuill; Snook and O'Neill, equal; Rider and Nairn, equal; Babson; Galbraith and Hilborn and Kennedy, equal; Gillis and Wisdom, equal. Class III.—Stewart (L.), Cantley; Morison and Winslow, equal; Raymond, Brunton, Boyd.

#### RAILWAY LAW.

Third Year.—Class I.—Gibb, Irwin. Class II.—Coulin; Brooks and McGuire, equal; Slingsby, Martin, Estey, Ker, Pratt, Bentley.

#### SHOPS AND ROUND HOUSES.

Fourth Year (Transportation Course).—Class I.—Brooks. Class II.—Estey, Martin, Irwin, Bentley. Class III.—McGuire.

#### SHOP WORK.

Fourth Year (Mechanical Engineering Course).—Class I.—Crocker, Guillet. Class II.—Moore, Davies; Cameron and Turnbull, equal; Killam; Callaghan and Whitton, equal; Renaud and Winslow, equal; Cowan. Class III.—Zimmerman, Murphy.

Third Year.—Class I.—Richardson, Allen (A.D.). Class II.—Grove and Lindsay, equal; McKnight, Robb, Mooney, Seely; Briggs and Smith (S.M.) and Trotter, equal; Dickieson; Fraser and Wilson, equal; Cook and Green and Stansfield, equal; Dwight and Ford and Gall and McKinnon (K.R.) and Vessot, equal; Briegel and Hague and Soper, equal; MacKay; Ekers and Goode and Landry, equal; Maver. Class III.—Edwards; Cate and Graham (H.M.), equal; Stevenson, Scott.

Second Year .- Class I .- None. Class II .- Rutherford; McLean and Needham, equal; Legris (C. A.) and MacDiarmid and McLeod (A. C. G.), equal; Boright and Macdonald (J. J.) and Reid (R.H.), equal; Brown and McLeod (J. W.) and Vinet and Vroom and Wyman, equal; Cowles and Cox and Dennis and Dowie and Duguid and McHenry and Sproule, equal; Cowley and Macfarlane and Nares and Timberlake, equal; Bisson and Gladman and Harris and Strong and Von Pozer, equal; Archibald and Echenberg and Ewart and Fregeau and Halliday and Hollinsed, equal. Class III. -Bennet and Clark and Cloran and Daubney (C. B.) and Ferrier and Hepburn and Jackson and Kohl and Macdonald (J. H.) and McNab and Millican and Pearce and Seath and Simpson, equal; Beagley and De Hart and Maltby and Mauer and Powis and Reid (A.C.) and Robertson (E.D.), equal; Biggar and Burland and Callander and Dawes and Gilchrist and Goodstone and Haultain \* and Scott (R.), equal; Ayer\* and Elkins and Fitzpatrick and Hanson and Young (A.A.) and Cardinal and Cole and Crockett\* and Meek and Narraway, equal; Derrom and Fox and Popham \* and Young (W. L.), equal; Penney and Pope, equal; Dakin and Fowler and Macintosh \* and Stark \* and Hemmant, equal; Alford\* and Daubney (J. E.) and Magrath and Williams \*, equal; Dobson and Gartshore and Ryley \*, equal.

<sup>\*</sup> To take Examination in Shopwork.

First Year.—Class I.—None. Class II.—Scrivener \* and Willis (G.C.), equal; Smith (G.A.); Archibald and Garth and Gnaedinger \* (C. W.) and Staveley, equal; Briercliffe and Brotherhood and Walker and Wilson, equal; Carnwath and Pope and Scott (A. N.) and Willis, equal; De Gruchy and Walcott, equal; Linagh and Lockhart and Macaulay and Planche and Ray, equal; Forbes and Webb, equal; Bacon and Boast and Dixon and Gillies and Koch and Sankey, equal; Murphy; Christie and Kingsley, equal; Bolton and Ross and Thompson, equal; Cram and Demers and O'Leary and Ralston and Wood (D. F.), equal; Alward and Forman and Ivey and Oughtred and Taylor and Woodyatt, equal; Clark (R. B.) and Dodd and Foster and Pengelley and Watson, equal; Anderson (J. R.) and Austin and Glasmacher and Holgate and Legris (C. E.) and Lesage \* and Logan \* and Morkill and Oliver and Turner, equal; Falcke and Fuller and Gnaedinger \* (F. T.) and Lauder \*, equal; Childe and Darling and Flewin \* and McDougall and Matheson, equal. Class III.—Campbell \* and The Company of t Evans and Hooper and Johnson (F. H.) and Smith (W. P.) and Stevenson, equal; Fortier and Kelley and Lipsey \* and McDonald \* (P. E.) and McGill \* and McMannus and Mallory and Nares \* and Stevens, equal; Clawson and Cushing \* and Gohier and Pain and Phillips \* and Richardson (C. E.), equal; Elliott and Gorman and Irwin and Shanly and Stuart and Lindsay \* and McInnes \* and Patterson and Reid \* (A. W.) and White \*, equal; McMaster \* and Green, equal; Beaulne \* and Holland \*, equal; Johnston (R. L.); Alwood \* and Brebner \*, equal; Jones \*; Connolley \* and Dennison and Murray \* and Ovalle and Robinson, equal; Collier \* and Johnston (R. C.) and Lewis \*, equal; McDonell \* (F. H.), Durie \*.

#### SIGNALLING.

Fourth Year.—Class I.—Irwin; Estey and Martin, equal. Class II.—Brooks, Bentley. Class III.—McGuire.

#### STEAM ENGINEERING.

Third Year.—Class I.—None. Class II.—Gibb and Ker, equal; Coulin.

#### STRENGTH OF MATERIALS.

Third Year (Transportation Course).—Class I.—Ker. Class II.—Coulin, Gibb.

#### STRUCTURAL ENGINEERING.

Third Year.—Class I.—Fox, Johnston, Coulin. Class II.—Bronson, Mc. Lean, Dennis, Powell; Heywood and Ker and Smith (G. W.), equal; Sailman, Dawson. Class III.—Gibb, Fetterly; Anderson and Burbidge and Goodchild and Russell, equal; De Lancey, Allan (M. G.), Poissant. Class III.—Byrne and McDougall, equal; Thorne, Dickson.

<sup>\*</sup> To take Examination in Shopwork.

#### SUMMER ESSAY.

- Fourth Year (Chemistry Course).—Class I.—Nicholls, MacKay, McFee, Dawson.
- Fourth Year (Civil Engineering Course).—Class I.—Lea, Bristol, D'Aeth. Class II.—Baird. Class III.—Moore, Eaton.
- Fourth Year (Electrical Engineering Course).—Class I.—Herbert. Class II.—Vipond, Mulligan, Spencer. Class III.—Raphael, Parham, Hodge.
- Fourth Year (Mechanical Engineering Course).—Class I.—Whitton. Class II.—Cameron. Class III.—Killam; Callaghan and Guillet and Murphy, equal.
- Fourth Year (Mining Engineering Course).—Class I.—Sproule. Class II.
  —Dick and Paré, equal; Campbell and Carmichael and Ross (C. M.), equal; Ells, Montgomery. Class III.—Kemp, Carruthers, Brennan.
- Fourth Year (Transportation Course).—Class II.—Copp, Finlayson.
- Third Year (Civil Engineering Course).—Class II.—Johnston, McLean, Russell. Class III.—Bronson.
- Third Year (Electrical Engineering Course).—Class I.—Soper, Dwight. Class II.—Lindsay. Class III.—Wilson and Hilborn, equal.
- Third Year (Mechanical Engineering Course).—Class III.—McKinnon (K. R.), Richardson; Grove and Stansfield, equal.
- Third Year (Mining Engineering Course).—Class I.—Yuill; Cantley and Hayes, equal. Class II.—Stewart (L.), Mohan.
- Third Year (Transportation Course).—Class II.—Fox, Fetterly, Ker.

#### SURVEYING.

- Third Year.—Class I.—Fox and Smith (G. W.), equal; Dawson and Dennis and McLean and Sailman, equal; Johnston and Kennedy, equal. Class II.—Yuill; Hilborn and Powell and Ross (C. C.) and Scott and Snook, equal; De Lancey and Nairn, equal; Lumsden; Heywood and Russell and Stewart (L.), equal. Class III.—Burbidge; Sutherland and Winslow, equal; Bronson and O'Neill, equal; Fetterly and Poissant, equal; Galbraith; Cantley and Wisdom, equal; Raymond, Anderson; Bregent and Willis, equal; Dickson and Boyd and Brennan, equal.
- Second Year.—Class I.—Harris, Cowles, Macdonald (J. J.), Boright, Dowie; McLean and McLeod (A. C. G.), equal. Class II.—McHenry; Daubney (C. B.) and Magrath, equal; Ayer; Gilchrist and Gill, equal; McNab; Daubney (J. E.) and Pearce and Timberlake, equal; Cox and Kohl, equal; Cowley; Bentley and Needham and Vroom, equal; Clark and Cloran and Fowler, equal; Dennis and Sproule, equal. Class III.—Eldridge; Ewart and Fregeau, equal; Brown; Cole and Ferrier and Hanson and White (M.), equal; De Hart and Echenberg and Narraway and Von Pozer and Wyman, equal; Dakin and Duguid and Penney, equal; McLeod (J. W.) and Hemmant and Stevenson, equal; Reid (R. H.) and Simpson and Strong, equal; Reid (A. C.); Beagley and Bennet and Dobson and Paine (A. J. C.) and Young (A. A.),

equal; Biggar; Elkins and Jackson, equal; Kingston and Meek and Nares and Rutherford and Ryley, equal; Callander; Anderson and Bisson and Fraser and McDiarmid, equal; Macdonald (J. H.); Derrom and Dawes and Maltby and Stuart, and Whyte, equal; Brunton and Powis and Vinet and Williams, and Rolston, equal.

#### SURVEYING-FIELD WORK.

Third Year.—Class I.—Fox, Johnston. Class II.—De Lancey and Dennis and Yuill, equal; McLean; Galbraith and Nairn and Sailman, equal; Dawson, Powell, Fetterly, Smith (G.W.); Burbidge and Hilborn, equal; Rider; Cantley and Ker and Lumsden and Russell, equal; Coulin and Scott and Stewart (L.), equal; Kennedy, O'Neill, Bronson, Wisdom. Class III.—Raymond and Ross (C.C.) and Snook, equal; Winslow; Gibb and Morison, equal; Bayley, La Forest, Poissant, Bregent.

Second Year .- Class I .- Vinet (E.) and Young (A. A.), equal; McLeod (A. C.) and Wyman, equal; McLean, Millican. Class II.—Kingston and McHenry, equal; Biggar and Cowley and Hepburn and McLeod (J. W.), equal; Callander and Dawes and Ewart and Gartshore, equal; Bought and Cowles and Daubney (C. B.) and Harris and McNab and Ryley, equal; Bennet and Daubney (J. E.) and Donald and Duguid and Fox and Hollinsed and Jackson and Penney and Robertson and Simpson and White (M.), equal; Brown and Chrysler and Echenberg and Haultain and Sproule and Vroom, equal; Cox and Dowie and Gilchrist and Hanson and Legris (J. A.) and MacDiarmid and Narraway and Reid (R. H.) and Scott (R. W.), equal; Archibald and Ayer and Maltby, equal; Alford and Meek and Paine (A. J. C.) and Von Pozer and Williams and Young (W. L.), equal; Beagley and Crockett and Fowler and Halliday and Macdonald (J. H.) and Macfarlane and Seath and White (J. A. G.), equal; Dennis and Dobson and Rutherford, equal; Clark and Macintosh and Magrath and Strong, equal; Cole and Jones and Needham and Pearce, equal; Goodstone and Kohl, equal; Bisson and Cardinal and Fregeau and Powis, equal; Cloran and Mauer and Payne (S. C.) and Pope and Stark and Timberlake, equal; Little, Ferrier. Class III.—Fitzpatrick, Nares, Burland; Fraser and Reid (A. C.), equal; Blanchard (E. S.) and Elkins, equal; Turnbull, Macdonald (J. J.).

#### THEORY OF STRUCTURES AND GRAPHICAL STATICS.

Fourth Year.—Class I.—Read, Copp, Macklem; Bates and Pitts, equal.

Class II.—Emmerson and Lighthall, equal; Kingston, D'Aeth;
Davis and Howe, equal; Baird and Mather and Melhuish, equal.

Class III.—Graham, Forbes; Ballantyne and Scott (G. E.), equal;
Holloway, Bell, Christie, Stitt, Kerr.

#### THEORY OF STRUCTURES.

Third Year.—Class I.—Dwight, Smith (G. W.); Landry and McKinnon (K. R.), equal; Ford and McKnight, equal. Class II.—Dickieson and Hague and Mulock and Smith (S. M.), equal; Kennedy and Sailman, equal; Briggs and Lindsay, equal; Powell; Russell and

Stewart (L.), equal); Fox and Heywood and McLean and De Lancey, equal. Class III.—Winslow; Dennis and Burbidge, equal; Nairn and Wilson, equal; Edwards, Dickson, Allan (M.C.), Soper; Allen (A.D.) and Yuill, equal; Bronson; Gall and Johnston, equal; Dawson; Anderson and Briegel and Green and O'Neill and Dion, equal; Richardson and Sutherland, equal; Robb, Galbraith; Goode and Stansfield and Wiscom, equal; Allen (L.W.) and Babson and Cate and Fraser and Trove and Poissant and Ross (C.C.), equal; Scovil, Slavin, Eakins, Goodehild.

#### THERMODYNAMICS.

Fourth Year (Mechanical Engineering Course).— Class I.—None. Class II.—Turnbull, Killam, Callaghan, Cameron, Bristel, Guillet. Class III.—Whitton, Moore, Davies, Winslow, Crocker, Murphy, Shearer.

#### THERMODYNAMICS, INCLUDING LABORATORY.

Fourth Year (Electrical Engineering Course).—Class I.—Parham, Lea. Class II.—Vipond; Herbert and Pease, equal; Hodge and Kenyon, equal; Morrin, Cattanach, Trimingham, Whyte, Spencer, Scott (W. G.), Dowell; Eaton and Mulligan, equal. Class III.—Perry, Raphael; Ross (D.) and Seely, equal; Lundy, Sheen, Richards.

Third Year (Mechanical Engineering Course).—Class II.—McKinnon (K. R.), Ford, Robb. Class III.—Goode; Graham (H. M.) and Richardson, equal; Grahame (D. F.) and Grove, equal; Ekers.

# SESSIONAL EXAMINATIONS 1907-1908.

## Faculty of Cam

## THIRD YEAR (GRADUATING CLASS).

HONOURS.

(In Order of Merit.)

Stewart, William, B. A.—Elizabeth Torrance Gold Medal; First Rank Honours, and Prize of \$50.00.

Stewart, Thomas S., B. A.—First Rank Honours and Prize of \$50.00. Ballon, Isidore, B. A.—First Rank Honours.

#### PASSED FOR THE DEGREE OF B. C. L.

(In Order of Merit.)

Stewart, W., B.A. Stewart, T. S., B.A. Ballon, I., B.A. Hyde, G. G., B.A. Cameron, A. W., B.A. Jenkins, J., B.A. McMurtry, R. O., B.A. Callaghan, F. O., B.A. Pelletier, A. D., B.A.

#### STANDING IN THE SEVERAL SUBJECTS.

(In Order of Merit.)

AGENCY, PARTNERSHIP AND CORPORATIONS.

Stewart (T. S.), Stewart (W.), Ballon, Hyde, Cameron, Pelletier, Jenkins, McMurtry, Callaghan.

COMMERCIAL LAW-(PROF. R. C. SMITH).

Stewart (W.), Stewart (T.S.), Ballon, Jenkins; Cameron, McMurtry, Hyde, Callaghan, Pelletier.

COMMERCIAL LAW-(MR. JUSTICE DOHERTY).

Stewart (W.), Stewart (T. S.); Ballon and Callaghan, equal; McMurtry, Jenkins, Hyde, Cameron, Pelletier.

#### CONSTITUTIONAL LAW.

Stewart (T. S.), Ballon, Stewart (W.), Hyde, Cameron, McMurtry, Jenkins, Pelletier.

#### CRIMINAL LAW.

Stewart (T. S.) and Stewart (W.), equal; Jenkins, Hyde; Ballon and Callaghan, equal; McMurtry, Pelletier, Cameron.

#### INTERNATIONAL LAW.

Stewart (W.), Stewart (T.S.); Ballon and Jenkins, equal; Cameron and Hyde, equal; McMurtry, Pelletier, Callaghan.

#### MARRIAGE COVENANTS, PRESCRIPTION, ETC.

Ballon and Stewart (W.), equal; Cameron and Stewart (T. S.), equal; Hyde, Jenkins, Callaghan, Pelletier, McMurtry.

#### OBLIGATIONS.

Stewart (T. S.), Stewart (W.), Ballon, Cameron, Hyde, Callaghan, Jenkins, McMurtry, Pelletier.

#### PROCEDURE.

Ballon, Stewart (W.), Stewart (T.S.); Cameron and Hyde, equal; Jenkins, Callaghan, McMurtry, Pelletier.

#### REAL PROPERTY LAW.

Stewart (W.), Stewart (T.S.); Ballon and Jenkins, equal; Cameron, Hyde, McMurtry, Pelletier, Callaghan.

#### ROMAN LAW.

Stewart (W.), Ballon, Stewart (T.S.), Cameron, Hyde, Callaghan, Mc-Murtry, Pelletier, Jenkins.

#### SUCCESSIONS, GIFTS AND SUBSTITUTIONS.

Stewart (T. S.); Ballon and Stewart (W.), equal; Hyde, Pelletier; Jenkins and McMurtry, equal; Callaghan, Cameron.

#### SECOND YEAR.

#### HONOURS.

Barclay, G., B.A.—First Rank General Standing, and Alexander Morris Exhibitioner.

Hing, P.—First Rank General Standing, and Prize of \$40.00. Hackett, J. T., B.L.—Second Rank General Standing.

#### PASSED THE SESSIONAL EXAMINATIONS.

(In Order of Merit.)

Barclay, G., B.A. Hing, P. Hackett, J. T., B.L. Gibb, R. W., B.A. Savard, A., B.A. De Lorimier, J. Dutaud, G., B.A.

#### STANDING IN THE SEVERAL SUBJECTS.

(In Order of Merit.)

CIVIL PROCEDURE.

Barclay, Hackett, Dutaud, Gibb, Hing, Savard, De Lorimier.

CRIMINAL LAW.

Hing, Barclay, Hackett, Gibb, Dutaud, De Lorimier, Savard.

COMMERCIAL LAW-(PROF. R. C. SMITH).

Barclay, Hing, Hackett, Savard, De Lorimier, Dutaud.

COMMERCIAL LAW-(MR. JUSTICE DOHERTY).

Barclay, Hackett, Hing, Gibb, Savard, De Lorimier.

GIFTS, ETC.

Hing, Barclay, Hackett, Gibb, Dutaud, Savard, De Lorimier.

MARRIAGE COVENANTS, ETC.

Hing, Barclay, Hackett, Dutaud, Savard; De Lorimier and Gibb, equal.

OBLIGATIONS.

Barclay, Hackett, Hing, Gibb, Dutaud.

PARTNERSHIP AND AGENCY.

Barclay, Hackett; Gibb and Savard, equal; Hing, De Lorimier.

PRIVATE INTERNATIONAL LAW.

Barclay, Hing; Gibb and Savard, equal; De Lorimier, Hackett, Dutaud.

#### REAL PROPERTY LAW.

Barclay, Hing, Hackett, Gibb.

#### FIRST YEAR.

#### HONOURS.

Heward, C. G., B.A.—First Rank General Standing; Scholarship of \$100, and Second Prize in Roman Law.

Penny, E. G. T., B.A.—First Rank General Standing; Scholarship of \$100 and First Prize in Roman Law.

Cousins, G. V., B.A.—Prize of \$25.00.

MacCallum, O. B., B.A.—Prize of \$25.00.

#### PASSED THE SESSIONAL EXAMINATIONS.

#### (In Order of Merit.)

Heward, C. G., B.A.
Penny, E. G. T., B.A.
Cousins, G. V., B.A.
MacCallum, O. B., B.A.
Jamieson, J. S., B.A.
Tulk, A. E.
Alexander, M.
Cushing, D., B.A.
Tétreau, M.
Cameron, A. G.
Jacobs, L.
Goodstone, I. A.

### STANDING IN THE SEVERAL SUBJECTS.

(In Order of Merit.)

#### CIVIL PROCEDURE.

Heward; Penny and Alexander, equal; MacCallum, Tétreau; Jacobs and Jamieson, equal; Tulk, Cushing, Cousins, Goodstone, Cameron.

#### CONSTITUTIONAL LAW.

Heward; Cousins and MacCallum, equal; Tulk, Penny, Jamieson, Alexander, Cushing; Goodstone and Tétreau, equal; Cameron, Jacobs.

#### LEGAL HISTORY.

Cousins, Heward, Jamieson, MacCallum, Cushing, Penny, Cameron, Jacobs, Tulk, Tétreau.

#### PERSONS.

Heward and Penny, equal; Cameron and Jamieson, equal; Cushing; Alexander and Goodstone, equal; Cousins, Tulk; Jacobs and MacCallum, equal; Tétreau.

#### PLEADING AND PRACTICE.

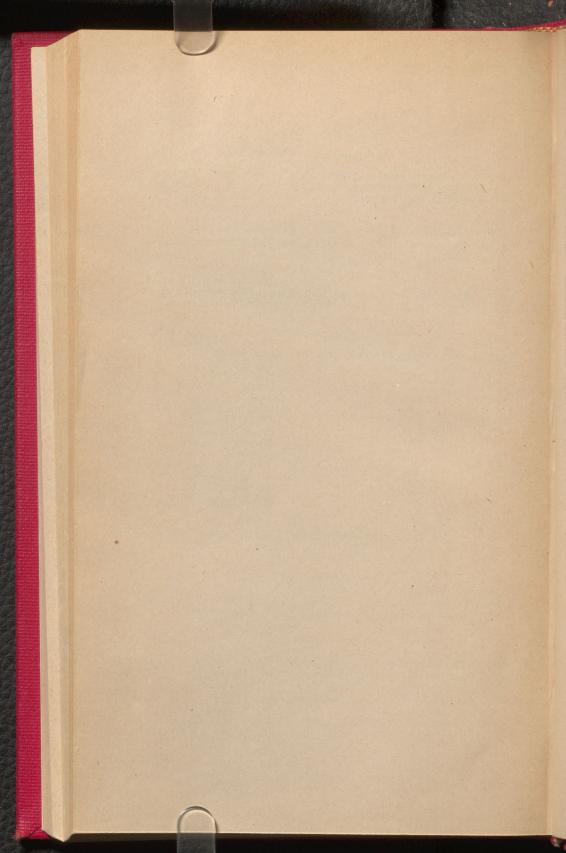
Heward, Alexander, MacCallum, Penny, Cousins, Tulk, Jamieson, Tétreau.

#### REAL RIGHTS.

Heward, MacCallum, Penny, Cousins, Tulk, Tétreau, Jamieson; Cushing and Goodstone, equal; Alexander; Cameron and Jacobs, equal.

#### ROMAN LAW.

Penny, Heward, Cousins, Jamieson, Tulk, MacCallum.



## SESSIONAL EXAMINATIONS

1907-1908

## Graduate School

(Names in Alphabetical Order.)

ADMITTED B.A., AD EUNDEM.

John Stewart Jamieson, B. A. (Toronto). Alexander Edward Wrottesley Salt, B.A. (Oxon.). Richard Percival Devereux Graham, B. A. (Oxon.). Donald Sutherland McIntosh, B.A., B. Sc. (Dallfousie).

ADMITTED M.A., AD EUNDEM.

Alexander Stewart Eve, M.A. (Cantab.).

ADMITTED TO THE DEGREE OF MASTER OF ARTS.

Cousins, George Vipond, B.A.
Jamieson, John Stewart, B.A.
Parker, David Warren, B.A.
Rorke, Mabele Lavinia, B.A.
Salt, Alexander Edward Wrottesley, B.A.
Smith, Ella Lauekner, B.A.
Vincent, Irving Orrin, B.A.

ADMITTED TO THE DEGREE OF MASTER OF SCIENCE.

Allan, John Andrew, B.A. Graham, Richard Percival Devereux, B.A. Harrington, John Lyle, B.A., B.Sc. McFee, Malcolm Charles Coll, B.A. McIntosh, Donald Sutherland, B.A., B.Sc. Shearer, George Wyman, B.Sc. Strangways, Henry Fox, B.Sc.

ADMITTED TO THE DEGREE OF DOCTOR OF SCIENCE.

Alexander Stewart Eve, M.A. Francis Charles Harrison, M.Sc.

## SESSION 1907-1908

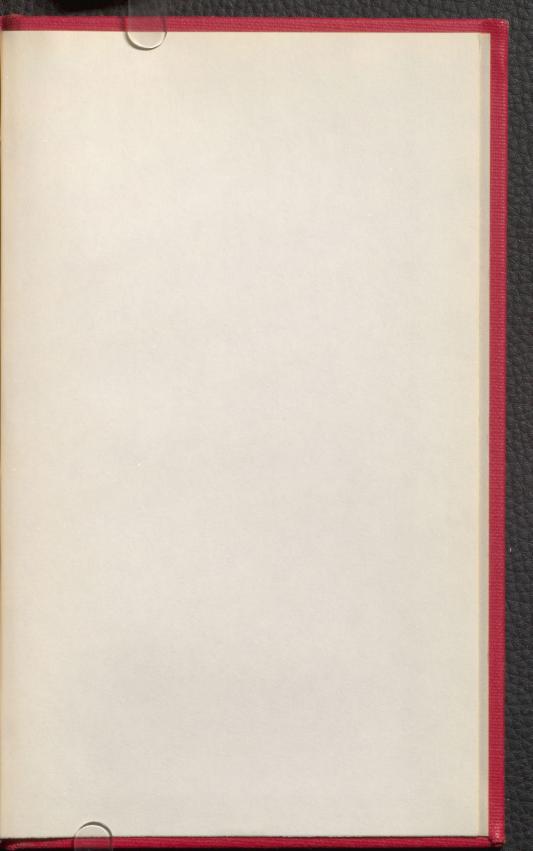
## Honorary Degrees Conferred

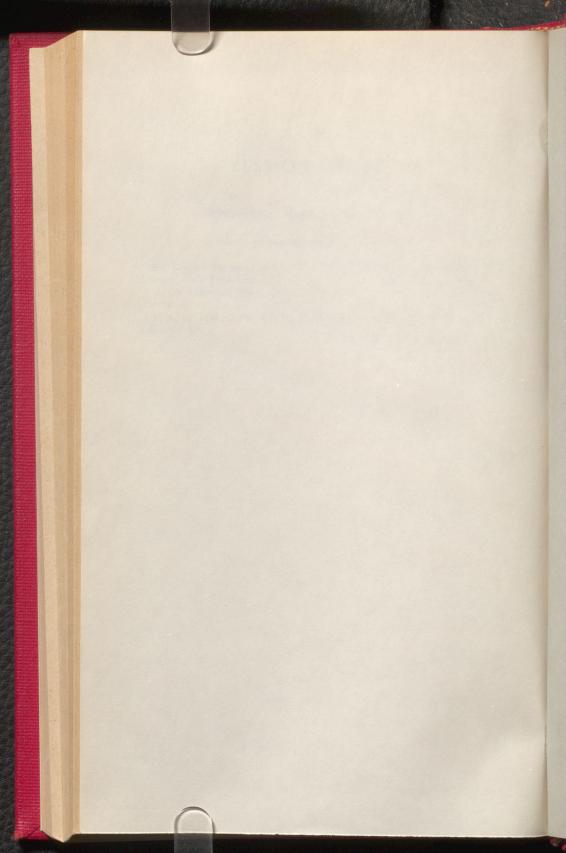
ADMITTED TO THE DEGREE OF DOCTOR OF LAWS.

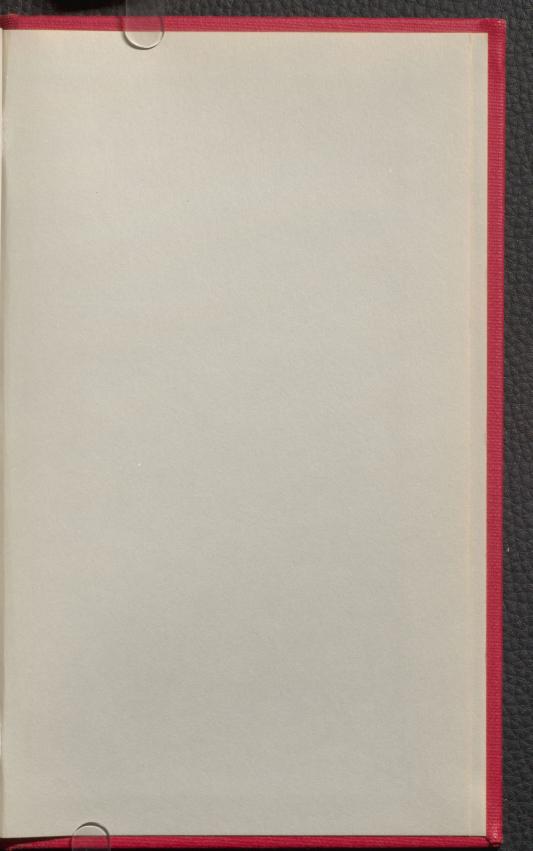
Sir Caspar Purdon Clarke, Kt., C.V.O., Director of the Metropolitan Museum, New York City.

Henry Marshall Tory, D. Sc., LL.D., President of the University of Alberta.

E. A. Schafer, D. Sc., LL.D., Professor of Physiology in the University of Edinburgh.







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