

# McGILL COLLEGE

UNIVERSITY,

MONTREAL.



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

SESSION 1898-99.

Montreal :

PRINTED FOR THE UNIVERSITY BY JOHN LOVELL & SON.

1898.

## CONTENTS.

GENERAL ANNOUNCEMENTS :---

GENERAL MAROUNDERING	
Governing Body Committees O ficers of Instruction	cxiv
FACULTY OF ARTS.	1
DONALDA SPECIAL COURSE FOR WOMEN	81.
FACULTY OF APPLIED SCIENCE	87
FACULTY OF LAW	157
FACULTY OF MEDICINE	180
FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE	236
McGill Normal School	253
UNIVERSITY SCHOOL EXAMINATIONS :-	
For Associate in Arts	270
PASSED THE UNIVERSITY EXAMINATIONS	285
SCHOLARSHIPS AND EXHIBITIONS	291
PRIZES, HONOURS AND STANDING	
LIST OF STUDENTS OF THE UNIVERSITY	330
OBSERVATORY	
Gymnasium	347
REGULATIONS CONCERNING COLLEGE GROUNDS AND ATHLETICS	347
UNIVERSITY SOCIETIES	349
BENEFACTIONS	357

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

## ADDENDA.

THE JUNE ENTRANCE EXAMINATIONS for 1899 will begin on MONDAY, MAY 29th, and be continued through the first week of June.

THE SIR J. WILLIAM DAWSON EXHIBITION of \$60, the gift of the New York Graduates' Society, will be open for competition to Candidates for Entrance in the Faculty of Arts (men or women) in September, 1898.



HIS E.

[Being the

TH

JOH WII HUG GEG EDV SAM ANI HOY CHA RICH SIR JAM CHA

(The Boa frame Statu the Univers o xxiv

1 81 87 157 180 236 . . 253 ... .. 270 .. 285 ... 291 ... 292 ... 330 .. 346 .. 347 .. 347 .. 349 ... 357

> ination nd may

> > ONDAY,

he New tes for 8. Goberning Body of the Aniversity.

## VISITOR:

HIS EXCELLENCY THE RIGHT HONOURABLE THE EARL OF ABERDEEN, M.A. (Oxon), LL.D., P.C. GOVERNOR GENERAL OF CANADA, ETC.

### GOVERNORS:

[Being the Members of the Royal Institution for the Advancement of Learning.]

THE RIGHT HON. LORD STRATHCONA AND MOUNT ROYAL, G.C.M.G., LL.D. (Hon Cantab.), President and Chancellor of the University.
JOHN MOLSON, Esq.
WILLIAM C. MCDONALD, Esq.
HUGH MCLENNAN, Esq.
GEORGE HAGUE, Esq.
GEORGE HAGUE, Esq.
EDWARD B. GREENSHIELDS, Esq., B.A.
SAMUEL FINLEY, Esq.
ANDREW FREDERICK GAULT, Esq.
HON. JOHN SPROTT ARCHIBALD, M.A., D.C.L.
CHARLES J. FLEET, Esq., B.A., B.C.L.
RICHARD B. ANGUS, Esq.
SIR WILLIAM C. VAN HORNE, K.C.M.G.
JAMES ROSS, Esq.
CHARLES S. CAMPBELL, B.A., LL.D.

(The Board of Governors has, under the Royal Charter, the power to frame Statutes, to make Appointments, and to administer the Finances of the University.)

12

## PRINCIPAL.

iv

#### WILLIAM PETERSON, M.A., LL.D., Vice-Chancellor.

(The Principal has, under the Statutes, the general superintendence of all affairs of the College and University, under such regulations as may be in force.)

#### FELLOWS:

SIR WILLIAM DAWSON, M.A., LL.D., F.R.S., C.M.G., Governors' Fellow.

ALEXANDER JOHNSON, M.A., LL D., D.C.L., F.R.S.C., Vice-Principal, and Dean of the Faculty of Arts.

REV. D. H. MACVICAR, D.D., LL.D., Representative Fellow, Presbyterian College, Montreal, Principal of the College.

JOHN REDPATH DOUGALL, M.A., Representative Fellow in Arts.

REV. J. CLARK MURRAY, LL.D., F.R.S.C., Elective Fellow, Faculty of Arts.

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

BERNARD J. HARRINGTON, M.A., Ph.D., F.G.S., F.R.S.C., Elective Fellow, Faculty of Applied Science.

REV. E. I. REXFORD, B.A., Governors' Fellow.

VERY REV. R. W. NORMAN, M.A., D.C.L., Governors' Fellow.

S. P. ROBINS, M.A., LL.D., Principal of McGill Normal School.

FREDERICK W. KELLEY, B.A., Ph. D., Representative Fellow in Arts.

REV. JAMES BARCLAY, M.A., D.D., Governors' Fellow.

ROBERT CRAIK, M.D., LL.D., Dean of the Faculty of Medicine.

T. WESLEY MILLS, M.A., M.D., F.R.S.C., Representative Fellow in Medicine.

DUNCAN McEACHRAN, D.V.S., Dean of the Faculty of Comparative Medicine and Veterinary Science.

MALCOLM C. BAKER, D.V.S., Elective Fellow, Faculty of Comparative Medicine and Veterinary Science.

ALEXANDER FALCONER, B.A., B.C.L., Representative Fellow in Law. CHAS. E. MOYSE, B.A., Elective Fellow, Faculty of Arts.

JOHN COX, M.A., Elective Fellow, Faculty of Arts.

R. F. RUTTAN, B.A., M.D., F.B.S.C., Elective Fellow, Faculty of Medicine. WM. McLENNAN, B.C.L., Representative Fellow in Law.

C. H. McLEOD, Ma.E., F.R.S.C., Representative Fellow in Applied Science. REV. C. R. FLANDERS, B.A., D.D., Representative Fellow, Stanstead

 REV. C. R. FLANDERS, B.A., D.D., Representative Fellow, Stanstead Wesleyan College, Stanstead, Que., Principal of the College.
 C. H. GOULD, B.A., Governors' Fellow.

REV. W. I. SHAW, M.A., LL.D., Representative Fellow, Montreal Wesleyan Theological College, Principal of the College.

FRANK D. ADAMS, M.A.Sc., Ph.D., Representative Fellow in Applied Science. JOHN

D. P. Hon. . Rev. I

Rev.

REV.

F. P. V. C. W. A. E.

(The Corpor frame and ot

W. VA

JAMES SAMUEI

The Associa the tea statutes ing such making ience of may be

ors' Fel-

rincipal,

byterian

rts.

aculty of

L., Dean

Elective

in Arts.

'ellow in

oparative

parative

in Law.

Medicine.

Science. Stanstead ze.

Wesleyan

Applied

JOHN A. DRESSER, M.A., Representative Fellow, St. Francis College, Richmond, Q., Principal of the College.

D. P. PENHALLOW, B.Sc., M.A.Sc., Elective Fellow, Faculty of Arts.

HON. JOHN S. HALL, B.A., B.C.L., Governors' Fellow.

REV. DONALD MACRAE, D.D., Representative Fellow, Morrin College, Quebec, Q, Principal of the College.

REV. FREDERICK J. STEEN, M.A., Representative Fellow, Montreal Diocesan Theological College.

REV. J. HENP.Y GEORGE, D.D., PH.D., Representative Fellow, Congregational College of Canada, Principal of the College.

F. P. WALTON, B.A., LL.B., Dean of the Faculty of Law.

C. W. WILSON, M.D., Representative Fellow in Medicine.

A. E. C. MOORE, D.V.S., Representative Fellow in Comparative Medicine and Veterinary Science.

(The Governors, Principal and Fellows constitute, under the Charter, the Corporation of the University, which has the power, under the Statutes, to frame regulations touching the Course of Study, Matriculation, Graduation and other Educational matters, and to grant Degrees.)

## 

W. VAUGHAN, OFFICE, EAST WING, MCGILL COLLEGE.

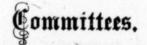
Office Hours : 9 TO 5.

JAMES W. BRAKENRIDGE, B.C.L. SAMUEL R. BURRELL, Cierk.

## THE ACADEMIC BOARD.

CHAIRMAN-THE PRINCIPAL.

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 of the University, have been constituted, under the statutes, the Academic E-ard of the University, with the duty of considering such matters as pertain to the interests of the University as a whole and making recommendations concerning the same.



#### FINANCE COMMITTEE OF THE GOVERNORS.

(Meeting on the second Thursday of each month at 3 p.m.) HUGH MCLENNAN, Esq. E, B. GREENSHIELDS, Esq. GLORGE HAGUE, Esq.,

SAMUEL FINLEY, Esq. C. J. FLEET, Esq. R. B. ANGUS, Esq.

#### PETER REDPATH MUSEUM COMMITTEE.

(Meeting on the Monday before the Quarterly Meeting of Corporation, at 4 p.m.)

PRINCIPAL PETERSON, Chairman. GEORGE HAGUE, Esq. C. J. FLEET, Esq. SIR WILLIAM DAWSON.

J. R. DOUGALL, Esq. DR. B. J. HARRINGTON. PROF. D. P. PENHALLOW. DR. F. D. ADAMS. PROF. ERNEST W. MACBRIDE.

## UNIVERSITY LIBRARY COMMITTEE.

(Meeting on the Monday before the Quarterly Meeting of Corporation at 5 p.m.) PRINCIPAL PETERSON, Chairman. REV. DR. J. CLARK MURRAY. HUGH MCLENNAN, Esq. DR. H. T. BOVEY. C. J. FLEET, Esq. J. R. DOUGALL, Esq. DR. ALEX. JOHNSON.

DR. B. J. HARRINGTON. PROF. C. E. MOYSE. C. H. GOULD, Esq. PROF. D. P. PENHALLOW.

## COMMITTEE OF MANAGEMENT OF THE MCDONALD PRYSICS BUILDING.

(Meeting on the Thursday before the Quarterly Meeting of Corporation at 5 p.m.) PRINCIPAL PETERSON, Chairman.

W. C. McDONALD, Esq. CHAS. S. CAMPBELL, Esq. DK. ALEX. JOHNSON. DR. H. T. BOVEY. PROF. JOHN COX.

#### COMMITTEE OF MANAGEMENT OF THE ENGINEERING BUILDING.

(Meeting on the third Monday of each month at 4 p.m.) PRINCIPAL PETERSON. C. J. FLEET, Eso. W. C. McDONALD, Esq. PROF. C. H. McLEOD.

DR. H. T. BOVEY.

#### COMMITTEE OF MANAGEMENT OF THE MCDONALD CHEMISTRY AND MINING BUILDING.

PRINCIPAL PETERSON. W. C. McDONALD, Esq. C. J. FLEET, Esq.

(Meeting on the third Monday of each month at 5 p.m.) DR. H. T. BOVEY. DR. B. J. HARRINGTON. DR. J. B. PORTER.

#### COMMITTEE OF MANAGEMENT OF THE COLLEGE GROUNDS.

PRINCIPAL PETERSON. C. J. FLEET, Esq. PROF. A. McGOUN.

(Meeting on the second Tuesday of each month at 5 p.m.) DR. F. D. ADAMS. DR. C. MCEACHRAN.

PROF. C. H. McLEOD (Sec. of Com.) DR. R. F. RUTTAN.

And Representatives of the Graduates and the University Athletic Clubs.

SIR WI HENRY

WM. WI

D. C. M.

MATTH

HON. J.

Hon, J. !

## Principal and Professors Emeriti,

4

🗑 🔓 [Retaining their Rank and Titles, but retired from active work.]

SIR WM. DAWSON, LL.D., F.R.S., C.M.G.

Emeritus Principal, and Emeritus Professor in the Faculty of Arts. HENRY ASPINWALL HOWE, LL.D.

Emeritus Professor in the Faculty of Arts. WM, WRIGHT, M.D.

Emeritus Professor in the Faculty of Medicine.

D. C. MACCALLUM, M.D. Emeritus Professor in the Faculty of Medicine.

MATTHEW HUTCHINSON, D.C.L. Emeritus Professor in the Faculty of Law.

How. J. EMERY ROBIDOUX, D.C.L. Emeritus Professor in the Faculty of Law.

HON. J. S. C. WURTELE, J.Q.B., D.C.L., (Officier d'Instruction Publique), Emeritus Professor in the Faculty of Law

LD

.)

.) AY.

.)

RING

LD

3E

(om.)

## Officers of Instruction.

## PROFESSORS.

- ---

WM. PETERSON, M.A. (Oxon), LL.D. (St. Andrews	and Princeton).
Principal and Professor of Classics.	889 Sherbrooke Street.
ALEXANDER JOHNSON, M.A., LL.D. (Dublin), D. Senior Moderator (Math. and Phys.), and late Cla	ssical Scholar Trin, Coll., Dub.
Vice-Frincipal and Dean of the Faculty of Arts,	, and
Peter Redpath Professor of Pure Mathematics.	895 Sherbrooke Street.
ROBERT CRAIK, M.D., LL.D. Dean of the Faculty of Medicine, and Professor of and Public Health.	Hygiene 887 Sherbrooke Street.
CILBERT P. GIRDWOOD, M.D., F.R.S.C. Professor of Chemistry, Faculty of Medicine.	82 University Street.
REV. J. CLARK MURRAY, LL.D. (Glasgow), F.R.S.C.	
Professor of Logic, and John Frothingham Profes.	
and Moral Philosophy.	340 Wood Av., Westmount.
BERNARD J. HARRINGTON, M.A., Ph.D., (Yale), F.	
David J. Greenshields Professor of Chemistry and	
Lecturer in Assaying, and Director of Chemistry and	007
Mining Building.	295 University Street.
THOMAS G. RODDICK, M.D.	
Professor of Surgery.	80 Union Avenue.
WILLIAM GARDNER, M.D.	
Professor of Gynæcology.	899 Sherlrooke Street.
HENRY T. BOVEY, M.A. (Cantab.), M. Inst. C.E., LL.I.	
late Fellow Queen's College, Cambridge.	, D.C.L. (Distops), F.R.S.C.,
Dean of the Faculty of Applied Science, and Will	iam Scott
Professor of Civil Engineering and Applied	
	Sunnandene, Ontario Avenue.
CHARLES E. MOYSE, B.A. (London).	
Molson Professor of English Language and Litera	ture. 802 Sherbrooke Street.
C. H. McLEOD, Ma.E., F.R.S.C.	
Professor of Surveying and Geodesy, and Lecturer	
Supt. of Meteorological Observatory.	Observatory, McGill College
FRANCIS J. SHEPHERD, M.D.	
Professor of Anatomy.	152 Mansfield Street.
FRANK BULLER, M.D.	
Professor of Ophthalmology and Otology.	123 Stanley Street.
JAMES STEWART, M.D.	
Professor of Medicine and Clinical Medicine.	285 Mountain Street.
GEORGE WILKINS, M.D.	Mary Mary Mary Market
Professor of Medical Jurisprudence and Lecturer i	in Histology. 898 Dorchester St.
D. P. PENHALLOW, B.Sc. (Boston Univ.), M.A.Sc., F.K	4.S.C., F.R.M.S.
Professor of Botany.	McGill College.

G. H. C F T. WE:

A. JUD

Hon. CH Pro THOMA: Pro W. DeM. Pro Hon. CH. Pro EUGENE Pro ALEX. D Pro JOHN T. Tho

R. F, RU' Proy JAMES.B Proy J. GEORG Proy FRANK I Loga H. S. BIRI Prof C. W. COL Prof

As ARCHII Pr DUNCA De MALCO Pr CHARLI Fr JOHN C( Wi

P J. CHA P Rev. D. P

G. H. CHANDLER, M.A.	
Professor of Applied Mathematics.	32 Lorne Avenue.
T. WESLEY MILLS, M.A., M.D., F.R.S.C.	
Professor of Physiology.	McGill College.
J. CHALMERS CAMERON, M.D.	
Professor of Midwifery and Diseases of Infancy.	941 Dorchester Street.
REV. DANIEL COUSSIRAT, B.A., B.D. (Université de F Officier d'Académie,	'rance), D.D. (Queen's),
Professor of Hebrew and Oriental Literature.	171 Hutchison Street.
A. JUDSON EATON, M.A. (Harvard), Pa.D. (Leipsic). Associate Professor of Classics.	34 Arlington Ave., Westmount.
ARCHIBALD McGOUN, M.A., B.C.L.	34
	stmount, and 181 St. James Street.
DUNCAN MCEACHRAN, F.R.C.V.S., D.V.S.	
Dean of Faculty of Consparative Medicine and Vet. Professor of Veterinary Medicine and Surger	erinary Science, and y. 6 Union Avenue.
MALCOLM C. BAKER, D.V.S.	
Professor of Veterinary Anatomy.	6 Union Avenue.
CHARLES MCEACHRAN, D.V.S.	
Professor of Veterinary Obstetrics and Diseases of	Cattle 6 Union Avenue.
JOHN COX, M.A. (Cantab ), late Fellow Trin. Coll., Camb	oridge.
William C. McDonald Professor of Physics, and Physics Building.	
Hon. CHRISTOPHER A. GEOFFRION, Q.C., D.C.L., 1 Professor of Civil Law.	P.C. 97 St James Street.
THOMAS FORTIN, D.C.L., LL.L. (Laval),	
Professor of Civil Law.	97 St James Street.
W. DeM. MARLER, B.A., D.C.L.	
Professor of Civil Law.	157 St James Street.
HON. CHARLES J. DOHERTY, D.C.L.	1 51 5
Professor of Civil Law.	232 Stanley Street
EUGENE LAFLEUR, B.A., B.C.L.	
	N.Y. Life Building, Place d'Armes.
ALEX. D. BLACKADER, B.A., M.D.	
Professor of Pharmic logy and Therapeutics, and on Diseases of Children.	236 Mountain Street,
JOHN T. NICOLSON, B.Sc. (Edin.).	
Thomas Workman Professor of Mechanical Engin Lecturer on Thermodynamics.	neering, 260 University Street,
R. F. RUTTAN, B.A. (Toronto), M.D., F.R.S.Can. Professor of Practical Chemistry, and Registrar Ma	edical Faculty. McGill College.
JAMES BELL, M D.	A Contract of the second s
Professor Clinical Surgery.	873 Dorchester Street.
J. GEORGE ADAMI, M.A., M.D. (Cantab.), F.R.S.E., la College, Cambridge.	ate Fellow of Jesus
Professor of Pathology and Director of Medical M	Museum. 331 Peel Street.
FRANK D. ADAMS, M.A. Sc., Ph.D. (Heidelberg) F.G.S. Logan Professor of Geology and Palzontology.	S.A., F.R.S.Can. 343 Mountain Street.
H. S. BIRKETT, M. D.	
Professor of Laryngology.	123 Stanley Street.
C. W. COLBY, M.A. and Ph.D. (Harvard).	
Professor of History.	McGill College.

rooke Street. C. I., Dub.

rooke Street.

rooke Street.

Nestmount.

rsity Street. on Avenue.

oke Street. R.S.C.,

rio Avenue.

oke Street.

ry, ill College

eld Street.

aley Street.

ain Street.

:hester St.

ill College.

ix

¢

14

FRANK CARTER, M.A. (Oxon). Professor of Classics. McGill College.	W. S.
F. G. FINLEY, M.B. (London), M.D. Assistant Professor of Medicine and Associate Professor of	J. G. C L
Clinical Medicine. 1013 Dorchester Street.	MAXII
H. A. LAFLEUR, B.A., M.D. Assistant Professor of Medicine and Associate Professor of Clinical Medicine. 58 University Street.	H, M. 1 L
GEO. E. ARMSTRONG, M.D. Associate Professor of Clinical Surgery. 320 Mountain Street.	CARRI
S. HENBEST CAPPER, M.A. (Edin.), A.R.I.B.A., A.R.C.A., William C. McDonald Professor of Architecture. McGill College.	JOHN L
J. BONSALL PORTER, E.M., A.M., Ph.D. (Col. Univ., N.Y.), M. Can. Soc, C.E.	C. F. M Lt
William C. McDonald Professor of Mining and Metallurgy, 33 McTavish St. F. P. WALTON, B.A. (Oxon), LL.B. (Edin).	LOUIS
Dean of the Faculty of Law and Gale Professor of Roman Law. McGill College.	J. J. GA
ERNEST WILLIAM MACBRIDE, M.A. (Cantab.), B. Sc. (Lond.), Fellow of St. John's College, Cambridge. Professor of Zoology.	<i>Le</i> J. A. SP
Hon. CHARLES PEERS DAVIDSON, M.A., D.C.L.	Le N. D. G
Professor of Criminal Law. 74 McGill College Ave. DONALD MACMASTER, Q.C., D.C.L.	De
Professor of Commercial Law. 185 St. James Street. William C. McDonald Professor of Electrical Engineering. McGill College.	Rev. J. 1 See
William C. McDonald Professor of Physics. McGill College	S. B. SL. Le
William C. McDonald Professor of Chemistry. McGill College.	AIMÉ C Lea
RICHARD S. LEA, MA.E. Assistant Professor of Civil Engineering and Lecturer in Mathematics. 59 Metcalfe Street.	GORDO Lea
HENRY F. ARMSTRONG, Assistant Professor of Freehand Drawing and Descriptive	F. A. L. <i>Lec</i> J. C. WE
Geometry. 12 Park Ave. R. J. DURLEY, B.Sc. (London), Ma.F., A.M.I.C.E.	Lec R. TAIT
Assistant Professor of Mechanical Engineering. McGill College. WYATT G. JOHNSTON, M.D.	Me
Assistant Professor in Public Health and Preventive Medicine. 74 Shuter Street.	JOHN P. Inst
Assistant Professor in Civil Engineering and Descriptive Geometry. McGill College.	J. G. McC Sen
LECTURERS, &c.	D. J. EV.
Lecturer in Logic and English. 58 University Street.	G. GORD
LEIGH R. GREGOR, B.A., Ph.D. (Heidelberg). Lecturer in German Language and Literature. 23 University Street.	Dem W. F. HA
T. J. W. BURGESS, M.D., F.R.S.C., Lecturer on Mental Diseases. Drawer 2381, Montreal.	J. A. HE
PERCY C. RYAN, B.C.L. Lecturer on Civil Procedure. Canada Life Building, St. James Street.	J. W. SCA
NEVIL NORTON EVANS, M.A.Sc.	Dem KENNET Dem
Lecturer in Chemistry. 217 Milton Street.	Den

X

	W. S. MORROW, M.D.	en and an and and
McGill College.	Lecturer in Physiology.	96 Park Av.
	J. G. G. KERRY, MA.E., A.M. Can. Soc. C.E.	and parts produced
	Lecturer in Surveying and Descriptive Geometry.	149 Durocher Street.
and anter Street	MAXIME INGRES,	
rchester Street.	Lecturer in French Language and Literature.	128 Crescent Street.
	H, M. TORY, M.A.	
in Second	Lecturer in Mathematics and Demonstrator in Physics.	31 Park Ave.
niversity Street.	CARRIE M. DERICK, M.A.	
	Lecturer in Botany and Demonstrator in the Botanical Lab	oratory. McGill College.
Mountain Street.	JOHN M. ELDER, B.A., M.D.	-
	Lecturer in Medical and Surgical Anatomy and Demonstrat	or of Surgery.
McGill College.	4201 Sherbi	rooke Street, Westmount.
	C. F. MARTIN, M.D.	
	Lecturer in Medicine Faculty of Medicine, and Faculty of C	omp. 46 Park Avenue,
3 McTavish St.	Med. and Vet. Sc., Demonstrator of Clinical Medicine.	40 Fark Avenue.
	LOUIS HERDT, Ma.E., E.E. (Elect. Inst. Montefiore, Belgium).	62 Laval Av.
McGill College.	Lecturer in Electrical Engineering.	02 Lavai Av.
McOm concer	J. J. GARDNER, M.D.	Paul Street
	Lecturer in Ophthalmology.	211 Peel Street.
McGill College.	J. A. SPRINGLE, B.A., M. D.	D 1
McGin Conege.	Lecturer in Anatomy.	1237 Dorchester Street.
	N. D. GUNN, M.D.	
ill College Ave.	Demonstrator of Histology Faculty of Medicine, and Lecture Materia Medica in the Faculty of Compar. Med.	
	Vet. Sc.	47 Union Avenue.
t. James Street.	REV. J. L. MORIN, M.A.	
	Sessional Lecturer in French.	65 Hutchison Street.
McGill College.	S. B. SLACK, M.A. (Oxon).	
CON College	Lecturer in Classics.	McGill College,
IcGill College	AIMÉ GEOFFRION, B.C.L.	
McGill College.	Lecturer on Obligations.	20 Bayle Street.
acom conce.	GORDON W. MACDOUGALL, B.A., B.C.L.	
		Building, Place d'Armes.
letcalfe Street.	F. A. L. LOCKHART, M.B. (Edin.)	
letcane Street.	Lecturer in Gynæcology.	38 Bishop Street.
	J. C. WEBSTER, B.A.& M.D. (Edin.), F.R.C.P. (Edin.)	30 Dianop Circon
12 Park Ave.	Lecturer in Gynæcology.	287 Mountain Street.
	R. TAIT McKENZIE., B.A., M.D.	207 Mountain Succes
IcGill College.	Medical Examiner and Instructor in Physical Culture, and	
reom compet	Demonstrator of Anatomy.	59 Metcalfe Street.
Classic Street	JOHN P. STEPHEN.	
Shuter Street.	Instructor in Elocution.	875 Dorchester Street.
Com Chu	J. G. McCARTHY, M.D.	and the state of the
4cGill College.	Senior Demonstrator of Anatomy.	61 Drummond Street.
	D. J. EVANS, M.D.	
1	Demonstrator of Obstetrics.	939 Dorchester Street.
	G. GORDON CAMPBELL, B.Sc. (Dalhousie), M.D.	939
versity Street.	Demonstrator of Clinical Medicine.	117 Metcalfe Street
	W. F. HAMILTON, M.D.	my mercanic brief,
iversity Street.		287 Mountain Street.
	Demonstrator of Clinical Medicine. J. A. HENDERSON, M.D.	auf mountain Bucet,
381, Montreal,		191 Bleury Street.
	Demonstrator of Anatomy.	igt Dicuty Street,
James Street.	J. W. SCANE, M.D.	4469 St Catherine Street.
James Street.	Demonstrator of Physiology,	4409 St Catherine Street.
	KENNETH CAMERON, B.A., M.D.	an Douchester Street
Milton Street,	Demonstrator of Clinical Surgery	903 Dorchester Street.

1

xi

이 같은 것은 것은 것을 알았는 것은 것을 알았는 것을 알았는 것을 알았다.	
C. G. L. WOLF, B.A. (Man), M.D.	
Demonstrator of Practical Chemistry.	McGill Medical College.
FRANK H. PITCHER, M.A. Sc. *	
Demonstrator of Physics.	McGill College.
HOWARD T. BARNES, M.A.Sc.	
Demonstrator of Physics.	14 Lorne Av.
W. I. BRADLEY, B.A. (Toronto), M.D.	
Demonstrator of Puthology and Anatomy.	2812 St. Catherine Street.
A. E. GARROW, M.D.	
Demonstrator of Surgery and Clinical Surgery.	2726 St Catherine Street.
ALEXANDER BRODIE, M.A.Sc.	-,
Demonstrator of Practical Chemistry.	McGill College.
JOHN W. BELL, B.A.Sc.	meon concer,
Demonstrator of Mining.	McGill College.
HOMER M. JAQUAYS, B.A., B.A.Sc.	McG.n Conege.
Demonstrator of Mechanical Engineering.	McGill College.
R. A. KERRY, M.D.	McGin Conege.
Assistant Demonstrator of Pharmacy.	149 Durocher Street.
J. J. ROSS, B.A., M.D.	149 Durocher Street.
Demonstrator of Anatomy.	Gar Walliam Start
A, E, ORR, M.D.	679 Wellington Street.
	D 1
Demonstrator of Anatomy.	900 Dorchester Street .
A. G. NICHOLLS, M.A., M.D. Demonstrator of Pathology.	
	267 Mountain Street.
H. B. YATES, B.A. (Cantab ), M.D.	
Demonstrator of Bacteriology.	257 Peel Street.
A. A. ROBERTSON, B.A., M.D.	
Demonstrator of Physiology.	79 St. Matthew Street.
J. ALEX. HUTCHISON, M.D.	
Demonstrator of Surgery.	70 Mackay Street.
J. D. CAMERON, M.D.	
Demonstrator of Gynæcology.	2068 St Catherine Street
E. J. SEMPLE, B.A. (St. Mary's College), M.D.	
Curator.	2437 Notre Dame Street
D. D. McTAGGART, B.A.Sc., M.D.	
Assistant Demonstrator of Pathology.	Montreal General Hospital-
S. RIDLEY MACKENZIE. M,D.	
Assistant Demonstrator of Medicine.	144 Peel Street.
D. P. ANDERSON, B.A., M.D.	
Assistant Domonstrator of Pathology.	493E St. Urbain Street.
T. P. SHAW, M.D.	
Assistant Demonstrator of Obstetrics.	1260 Dorchester Street.
JAMES BARCLAY, M.D.	
Assistant Demonstrator of Obstetrics.	McGill Medical College.
MISS HELEN S. GAIRDNER.	medital Contege.
Lady Superintendent Donalda Ladies' Classes.	47 Victoria Street
MISS HELEN O. BARNJUM.	
Instructress in Physical Education, Donalda Ladies	' Classes. 9 Drummond Street.
LIBRARY.	
CHAS H GOULD BA	
HAS H GUILD BA	In Trape to The Control of States of States and the States of States and States and States and States and States

963 Dorchester Street.

47 St. Famille Street-

Th

the ame By Governo

of the L

with the Arts and

In its rel

while all no interf

THE FA Sessi

The liberal p possible

The Montreal

Expe

Natu is, w

the 1 in fa

Scier Certa

of stu The Degn

learn Queb

avoid

give t tables

in eith enterin

similar THE FACU

extend. Mining

mistry, gineeri THE FACUI of eigh

THE FACUL over fo C.M.

THE FACUL

complet the Deg

The Degre Law a

THE DONA in sepa

In the Ses by wh Facul

University Librarian. н мотт. Assistant Librarian.

xii

General Statement.

## SESSION OF 1898-99.

The Sixty-sixth Session of the University, being the Forty-sixth under the amended Charter, will commence in the autumn of 1898.

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

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

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

#### I. MCGILL COLLEGE.

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

THE FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.—The complete course extends over three Sessions of six months each, and lea is to the Degree of D.V.S.

Idical College.

McGill College.

14 Lorne Av.

therine Street.

therine Street.

McGill College.

McGill College.

McGill College.

urocher Street.

illington Street.

chester Street .

Juntain Street.

57 Peel Street.

atthew Street.

Mackay Street.

atherine Street

Dame Street ...

neral Hospital.

4 Peel Street.

Urbain Street.

chester Street.

idical College.

ictoria Street

amond Street.

chester Street.

amille Street.

Thursda Friday

Saturday

Tuesday Wednesd

Thursda

9 Friday

11 SUNDA

13 Tuesday 14 Wednesd

15 Thursday

17 Saturday

18 SUNDAY

20 Tuesday

21 Wednesda

23 Friday 24 Saturday

25 SUNDA 26 Monday

Tuesday 27

Wednesda

Thursday

I Saturday

2 SUNDAY

Tuesday

Wednesda

Thursday Friday

8 Saturday

9 SUNDAY 11 Tuesday 12 Wednesday 13 Thursday

14 Friday 15 Saturday

16 SUNDAY 17 Monday 18 Tuesday 19 Wednesday

20 Thursday

21 Friday 22 Saturday

23 SUNDAY 24 Monday 25 Tuesday

26 Wednesday

27 Thursday 28 Friday 29 Saturday

30 SUNDAY

NOTE.-Meetin

22

29 30 Friday

Thursday

16 Friday

10 Saturday

4 SUNDA

Students of Affiliated Colleges are matriculated in the University, and may pursue their course of study in the Affiliated College, or in part in the Affiliated College and in part in McGill College, as the case may be, and may come up to the University Examinations on the same terms as the students of McGill College. MORRIN COLLEGE, QUEBEC. - Is affiliated in so far as regards Degrees in Arts and

Law. [Detailed information may be obtained from the REV. DONALD MACRAE D.D., Principal.]

ST. FRANCIS COLLEGE, RICHMOND, P.Q .-- Is affiliated in so far as regards the Intermediate Examinations in Arts. [Detailed information may be obtained from J. A. DRES-ER, B.A., Principal.]

THE STANSTEAD WESLEYAN COLLEGE, STANSTEAD, P.Q.-Is affiliated in so far as regards the Intermediate Examination in Arts. [Detailed information may be obtained from the Rev. C. R. FLANDERS, B.A., Principal.]

III. AFFILIATED THEOLOGICAL COLLEGES.

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

THE CONGREGATIONAL COLLEGE OF CANADA, MONTREAL. Principal, REV. J. HENRY GEORGE, D.D., PH.D., 58 McTavish St.

THE PRESBYTERIAN COLLEGE, MONTREAL, in connection with the Presbyterian Church in Canada. Principal, REV. D. H. MACVICAR, D.D., LL.D., 69 McTavish St.

, 201 University St. THE DIOCESAN COLLEGE OF MONTREAL. Principal, -THE WESLEYAN COLLEGE OF MONTREAL. Principal, REV. W. I. SHAW, M.A., LL.D., 228 University St.

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

#### IV. MCGILL NORMAL SCHOOL.

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

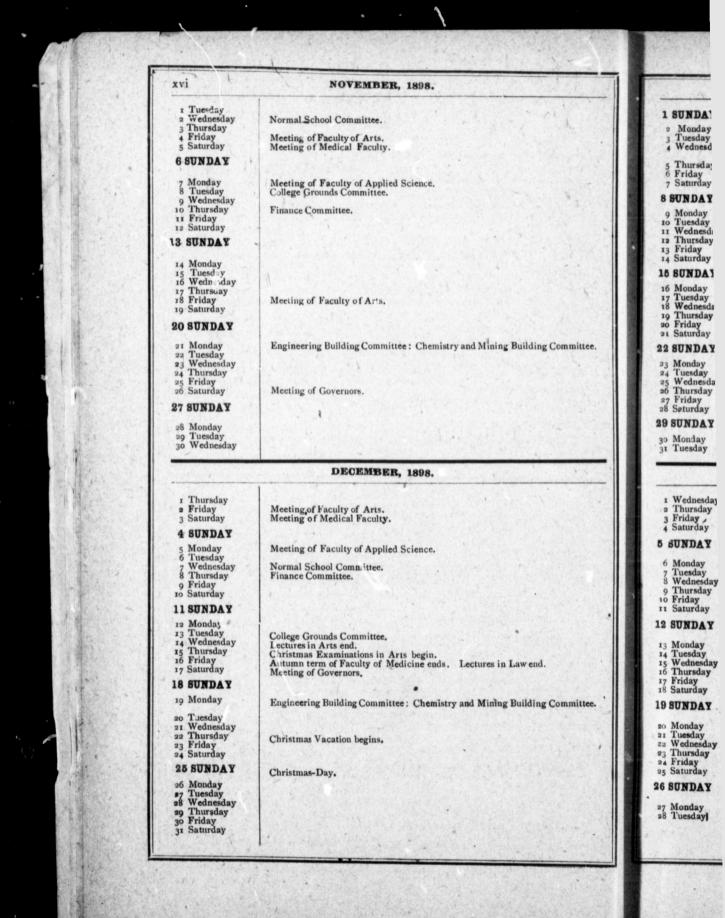
#### V. AFFILIATED HIGH SCHOOLS, ETC.

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

Schools which have prepared successful candidates for A.A. ar for matriculation (June, 1898).

Abingdon School, Montreal; Montreal Coll. Inst.; St. John the Evangelist School, Montreal; Miss Symmers' and Miss Smith's School, Montreal; Westmount Academy; Almonte High School; Aylmer Acad.; Bedford Acad.; Brantford Coll. Inst.; Chicoutimi Protestant School; Clarenceville Model School; Coaticook Acad.; Compton Ladies' Coll.; Cookshire Acad.; Cowansville Acad.; Danville Acad.; Dufferin Grammar School; Dunham I adies' Coll.; Enfield School; Feller Inst.; Gananoque High School; Granby Acad ; Huntingdon Acad. ; Knowlton' Acad. ; Lachute Acad. ; Lennoxville Model School; Magog Model School; Orangeville High School; Ormstown Acad.; Ottawa Coll. Inst.; Pembroke High School; Portage du Fort Model School; Girls' High School, Quebec; Renfrew High School; Church School for Boys, Rothesay, N.B.; Shelburne Acad-N.S.; Sherbrooke Acad.; Stanstead Wesleyan Coll.; Sutton Acad.; St. Francis Coll. School; St. Johns' High School; Bishop Field Coll., St. John, Nfld., Three Rivers Acad.; Buckland Coll., Vancouver, B.C.; Waterloo Acad.; Williamstown High School.

	ACADEMICAL YEAR 1898-99.
	SEPTEMBER, 1898.
1 Thursday	Normal School opens.
2 Friday 3 Saturday	Meeting of Medical Faculty.
4 SIINDAY	Meeting of Faculty of Applied Science.
6 Tuesday	Matriculation in Law. Lectures in Law begin.
7 Wednesday 8 Thursday	Normal School Committee. Finance Committee.
9 Friday 10 Saturday	
11 SUNDAY	
13 Tuesday	Register opens for students in Medicine. College Grounds Committee.
14 Wednesday 15 Thursday	Meeting of Faculty of Arts. Matriculation and Supplemental Examinations (Classics). [For Exhibition and
16 Friday	Scholarship Examinations see page xxi.] Examinations continued (Mathematics).
17 Saturday	Matriculation in Veterinary Science.
18 SUNDAY 19 Monday	Examinations continued (English, Logic, Mental Philosophy and Chemistry
	Engineering Building Commutee: Chemistry and Mining Building Committee.
20 Tuesday	Examinations continued (Modern Language sand Natural Science). Introducto Lecturc in Medicine.
21 Wednesday	Lectures in Arts. Medicine and Veterinary Science begin. Meetings of Faculty Arts and of Applied Science.
22 Thursday	
23 Friday 24 Saturday	Lectures in Applied Science begin. Meeting of Faculty of Arts, Meeting of Covernors.
25 SUNDAY 26 Monday	
27 Tuesday	
28 Wednesday 29 Thursday	and the second
30 Friday	Le contra de la co
	OCTOBER, 1898.
1 Saturday	Summer Essays in Applied Science, Meeting of Medical Faculty.
2 SUNDAY 3 Monday	Meeting of Faculty of Applied Science.
4 Tuesday	
5 Wednesday 6 Thursday	Founder's Birthday. Normal School Committee. The William Molson Hall opened, 1862.
7 Friday 8 Saturday	Meeting of Faculty of Arts. Supplemental Examinations, Applied Science.
9 SUNDAY 10 Monday	
11 Tuesday	College Grounds Committee.
12 Wednesday 13 Thursday	Finance Committee.
14 Friday 15 Saturday	
16 SUNDAY	
17 Monday 18 Tuesday	Engineering Building Committee : Chemistry and Mining Building Committee
19 Wednesday 20 Thursday	Physics Building Committee.
21 Friday 22 Saturday	University Athletic Sports. Meeting of Faculty of Arts. Meeting of Governors, Register closes for Students in Medicine.
23 SUNDAY 24 Monday 25 Tuesday	Museum Committee : Library Committee.
26 Wednesday	Regular Meeting of Corporation. Reports of Scholarships and Exhibitions Accounts audited.
27 Thursday 28 Friday	Accounts auditou.
29 Saturday	
30 SUNDAY 31 Monday	New Library opened, 1893
	f the Faculty of Arts are held at 4.30 P.M. unless otherwise specified.
meetings (	I the I about of the at and at 4130 I . M. uncesould whet specificat



	JANUARY, 1899
1 SUNDAY	
2 Monday	Meeting of Faculty of Applied Science.
3 Tuesday 4 Wednesday	Christmas Vacation ends. Winter term Faculty of Medicine begins. Normal School Committee.
5 Thursday 6 Friday 7 Saturday	Lectures in Arts and Applied Science resumed. Meeting of Faculty of Arts. Meeting of Medical Faculty.
8 SUNDAY	
9 Monday 10 Tuesday 11 Wednesday	Lectures in Law resumed. College Grounds Committee.
12 Thursday 13 Friday 14 Saturday	Finance Committee. Meeting of Faculty of Arts.
15 SUNDAY	
16 Monday 17 Tuesday	Engineering Building Committee: Chemistry and Mining Building Committee.
18 Wednesday 19 Thursday 20 Friday	Physics Building Committee.
21 Saturday	Intecting of Governors.
22 SUNDAY	Museum Committee : Library Committee.
23 Monday 24 Tuesday 25 Wednesday	Regular Meeting of Corporation. Examiners appointed. Annual Report to Visitor
25 Wednesday 26 Thursday 27 Friday	Meeting of Faculty of Arts.
27 Friday 28 Saturday	income or Faculty of Artor
29 SUNDAY	
30 Monday 31 Tuesday	Theses for M.A. and LL.D. to be sent in.
	FEBRUARY, 1899.
1 Wednesday 2 Thursday	Normal School Committee.
3 Friday , 4 Saturday	Meeting of Medical Faculty.
5 SUNDAY	
6 Monday	Meeting of Faculty of Applied Science.
7 Tuesday 8 Wednesday	
9 Thursday 10 Friday	Finance Committee. Meeting of Faculty of Arts.
11 Saturday	
12 SUNDAY	
13 Monday 14 Tuesday 15 Wednesday 16 Thursday	College Grounds Committee. No Lectures.
17 Friday 18 Saturday	
19 SUNDAY	
20 Monday	Engineering Building Committee : Chemistry and Mining Building Committee.
21 Tuesday 22 Wednesday	
23 Thursday 24 Friday	Meeting of Faculty of Arts.
25 Saturday 26 SUNDAY	Physics and Engineering Buildings opened, 1893. Meeting of Governors.
·	
27 Monday 28 Tuesday	and the second second in the second sec
· · ····	A second s
A State of the State of the State	· · · · · · · · · · · · · · · · · · ·

ilding Commi

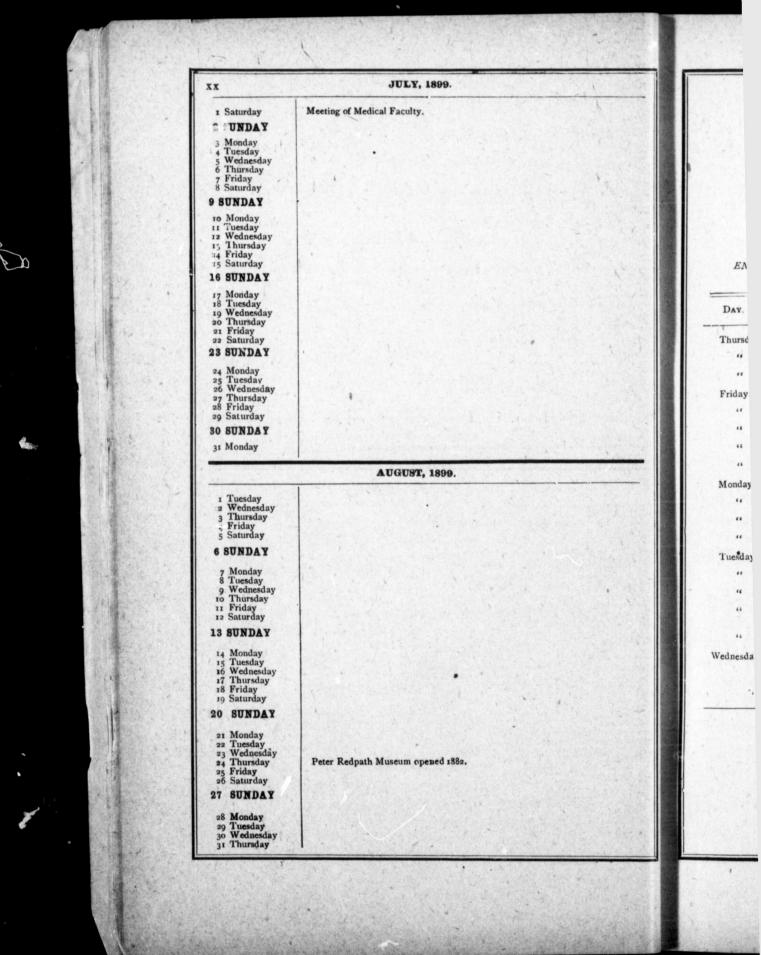
xviii	MARCH, 1899.	
1 Wednesday 2 Thursday	Normal School Committee.	
3 Friday 4 Saturday	Meeting of Medical Faculty.	I Mon 2 Tues
6 Monday 7 Tuesday 8 Wednesday	Meeting of Faculty of Applied Science.	3 Wed 4 Thur 5 Frida 6 Satur 7 SU
9 Thursday 10 Friday 11 Saturday	Finance Committee. Meeting of Faculty of Arts.	8 Mone 9 Tues
12 SUNDAY		To Wed
13 Monday 14 Tuesday 15 Wednesday 16 Thursday 17 Friday	College Grounds Committee.	11 Thur 12 Frida 13 Satur 14 SU
18 Saturday		16 Tues
19 SUNDAY 20 Monday 21 Tuesday 22 Wednesday 23 Thursday	Engineering Building Committee : Chemistry and Mining Building Committee.	17 Wedn 18 Thur 19 Frida 20 Satur 21 SU
24 Friday	Meeting of Faculty of Arts. Reports of Attendance on Lectures. Winter term ends Faculty of Medicine.	22 Mond
25 Saturday	Meeting of Governors.	23 Tueso 24 Wedr
26 SUNDAY		25 Thur 26 Frida
27 Monday 28 Tuesday 29 Wednesday 30 Thursday	Lectures in Arts and Applied Science end. Convocation for Degrees in Veterinary Science. Lectures in Law end, Examin-	27 Satur 28 SUI
	ations in Arts, see p. xxiii, Good Friday. Easter vacation begins.	29 Mond
31 Friday	Good Finday, Amore receive asympt	30 Tueso 31 Wedn
a start and a start	APRIL, 1899.	
1 Saturday	Meeting of Medical Faculty.	
2 SUNDAY	Easter Sunday.	T Thur
3 Monday 4 Tuesday 5 Wednesday 6 Thursday 7 Friday	Meeting of Faculty of Applied Science, Easter vacation ends. •Normal School Committee.	2 Frida 3 Satur 4 SUN 5 Mond
8 Saturday	· / · · ·	6 Tuesd 7 Wedn
9 SUNDAY		8 Thurs 9 Frida
10 Monday 11 Tuesday	Spring term begins Faculty of Medicine. College Grounds Committee.	to Sature 11 SUN
12 Wednesday 13 Thursday 14 Friday 15 Saturday	Finance Committee.	12 Mond
16 SUNDAY		13 Tuesd 14 Wedn
17 Monday 18 Tuesday	Engineering Building Committee : Chemistry and Mining Building Committee.	15 Thurs 16 Frida 17 Sature 18 SUN
19 Wednesday 20 Thursday	Physics Building Committee.	
21 Friday 22 Saturday	Meeting of Governors.	19 Monda 20 Tuesd
23 SUNDAY		21 Wedn 22 Thurs
24 Monday	Museum Committee : Library Committee,	23 Friday 24 Sature
25 Tuesday 26 Wednesday	Regular meeting of Corporation	. 25 SUN
27 Thursday 28 Friday 29 Saturday	Convocation for Degrees in Arts, Law and Applied Science. Meeting of Examiners for School Examinations.	26 Mond 27 Tuesd
30 SUNDAY	1 A State of the s	28 Wedn 29 Thurs 30 Friday

Ą

MAY, 1899. xi Monday Tuesday Wednesday Normal School Committee. Thursday Friday Meeting of Medical Faculty. SUNDAY 8 Monday 9 Tuesday 10 Wednesday 11 Thursday 12 Fridav 13 Saturday Examinations in Normal School begin. College Grounds Committee. Finance Committee. **14 SUNDAY** 15 Monday 16 Tuesday 17 Wednesday 18 Thursday 19 Friday 20 Saturday Engineering Building Committee : Chemistry and Mining Building Committee. uilding Committee. 21 SUNDAY Whit Sunday. Winter term Lectures. 22 Monday 23 Tuesday 24 Wednesday 25 Thursday 26 Friday 27 Saturday 28 SUNDAY Queen's Birthday. Lectures end Faculty of Medicine, Meeting of Governors. Trinity Sunday. in Law end, Examin-Examinations begin Faculty of Medicine, and for Matriculation and Associate in 29 Monday Arts, 30 Tuesday 31 Wednesday Normal School closes for Summer Vacation. JUNE, 1899. Thursday Friday Saturday 2 Meeting of Medical Faculty. 3 4 SUNDAY 5 Monday 6 Tuesday 7 Wednesday 8 Thursday 9 Friday 10 Saturday Normal School Committee. Finance Committee. Committee. 11 SUNDAY 12 Monday 12 Monday 13 Tuesday 14 Wednesday 15 Thursday 16 Friday 17 Saturday College Grounds Committee, Physics Building Committee. Convocation for degrees in Medicine. uilding Committee. 18 SUNDAY 19 Monday 20 Tuesday 21 Wednesday Engineering Building Committee : Chemistry and Mining Building Committee. 22 Thursday 23 Friday 24 Saturday Meeting of Governors. **25 SUNDAY** 26 Monday 27 Tuesday 28 Wednesday. 29 Thursday 30 Friday Museum Committee : Library Committee, Regular Meeting of Corporation. Report of Normal School.

2

A



.

## FACULTY OF ARTS.

## ENTRANCE, EXHIBITION, SCHOLARSHIP, &., EXAMINATIONS, SEPTEMBER, 1898.

DAY.	DATE	FIRST YEAR	SECOND YEAR.	THIRD YEAR.	HOUR
Thursday.	15	Latin.	Greek.	Greek.	9 to 1
- 4	15	Greek.	Latin.	Latin Prose Comp.	2 to 5
"	15			Mathematics.	9 to 1
Friday.	16	Geometry.	Mathematics.	Latin.	9 to 1
"	16			Mathematics.	9 to 13
"	16			Botany.	9 to 1
"	16	Algebra, Arithmetic	Mathematics.	Ancient History.	2 to 5
"	16	and Trigonometry.		Botany.	2 to 5
Monday.	19	English.	English.	English.	y to 1
"	19			Logic.	9 to 1
"	19	English.		English.	a to
"	19		Chemistry.	Chemistry.	2 to 5
Tuesday.	20			Mathematics.	9 to 1
"	20	Second Contractor		Botany.	9 to 12
4	20	French.	French.	French.	9 to
	20	Grammar and Comp. (Classics for Exhib.)	General Paper. (Classics.)	English Composition	2 to 5
"	20	German.			a to 5
Vednesday.	21	Physics and Nat. Sc.	Mathematics.	Mathematics.	9 to' 12
		Physics and Nat. Sc.	English.	German.	2 to 5
			German.		

xxi

ł

١

DATE.

30 MARCH

APRIL. 5 Wed. 6 Thurs. 7 Fri. 10 Mon. II Tues. 12 Wed. 13 Thurs. 14 Fri. 17 Mon. 19 Wed. 20 Thurs. 21 Fri. 22 Sat. 23 Sun. 24 Mon. 25 Tues. 26 Wed.

1

C

27 Thurs. 28 Fri.

The Examina

μ.

## FACULTY OF ARTS.

CHRISTMAS EXAMINATIONS, DECEMBER, 1898.

xxii

1

DAY.	DATE	FIRST YEAR.	SECOMD YEAR.	THIRD YEAR.	FOURTH YEAR.
Thursday.	15	Latin,		Mechanics.	Astronomy.
	15	i	M 2.M.		
Friday.	16	Greek.		Greek.	Gicek.
	16		1 - C	Zoology, P.M.	Latin, P.M.
Monday.	39	Mathematics.	Psychology.	Latin.	Moral Philosophy.
"	19	French, P.M.	French, P.M.	Ment. Phil., P.M.	Geology, P.M.
Tuesday.	20	Physics.	Botany.		
"	20	German, P.M.	German, P.M.		
"	20	Hebrew, P.M.	Hebrew, P.M.		
Wednesday.	21	English.	History.		1 States

\_\_\_\_\_

FOURTH YEAR.

Astronomy.

Gaek.

Latin, P.M.

foral Philosophy. Geology, P.M.

APRIL 5 Wed. Greek......Greek. Greek. .... Greek. Mechanics..... Ethics. Ethics. Latin. ...... Latin. Latin. ..... Latin. Latin. Latin. 6 Thurs. Latin. Latin. English ..... English. Mod. Hist ..... Ex. Phy- English. Ex. Phy- English. 7 Fri. sics..... Botany..... sics 10 Mon. ..... Botany. ....... Geometry and Arithmetic... Trigonometry Mathematics..... Greek. ..... Greek. II Tues. Mechanics and B.A. Honours. Astr'y. and Optics. B.A. Honours. Geology. Geology 12 Wed. Mathematics... Astronomy and .... and Algebra. ..... rench. German. French. German. Metaphysics..... 13 Thurs. French. 14 Fri. Chemistry ...... Logic..... Zoology...... Greek. Greek. ...... Botany ...... French.....German. Botany..... French. ...German. French. Germa B.A. Honours. B.A. Honours. German 17 Mon. Advanced Section 19 Wed. Examinations. 20 Thurs. ..... Honour Examinations Honour Exam'tions B. A. Honours. 21 Fri. Advanced Section Examinations. Meeting of Examin ers and Faculty at 9.30 A.M. 22 Sat. 23 Sun. ....... Meeting of Examiner's and Faculty at 9.30 A.M. Declaration of results. 24 Mon. 25 Tues. ...... ...... 26 Wed. Regular Meeting of C orporation..... 27 Thurs. ..... ..... Convocation for Degr ees in Arts. 28 Fri.

FACULTY OF ARTS. SESSIONAL AND HONOUR EXAMINATIONS, 1899.

P.M.

THIRD YEAR.

Hebrew .....

P.M.

A.M.

SECOND YEAR.

Hebrew ......

A.M.

FIRST YEAR.

P.M.

A.M.

30 MARCH Hebrew .....

DATE.

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

xxiii

FOURTH YEAR.

Hebrew and B.A. Honours.

P.M.

A.M.

۱

## **M**.

xxiv

## FACULTY OF APPLIED SCIENCE.

## SESSIONAL EXAMINATIONS, APRIL, 1899.

D	ATE.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR.
AP I S	RIL.		Building Const. a.m.	Testing Lab. a.m.	Geology.
2 S	un.	Easter Sunday.			
3 M		Desc. Geom., a.m.	Desc. Geom.	Theory of Structures	f Chemistry.
				Chemistry.	Assaying.
4 1	ues.	Mathematics.	Chemistry.	Elect. Eng.	Dyn. of Machin'y (Chemistry.
5 W	Ved.	•••••	Chemistry.	Theory of Structures	Elect. Engin. Theory of Struct.
6 T	hurs.	Math. Lab.	Surveying.	{ Desc. Geom. { Muncip. Eng, p.m. (Sanitary).	(Sanitary).
7 F 8 S			Exp. Physics.	Exp. Physics.	Elect. Engin. Geodesy. Mechl. Eng.
9 S					
10 M	lon.	Pract. Chem. (1)	Kinematics.	Surveying,	Mechl. Engin. Lab. (Hydraulics.
11 T	ues.	Mathematics.	Mathematics.	Machine Design. Org. Chemistry.	a.m. and p.m. Org. Chemistry.
12 W	Ved.	Desc. Mechanism.	{Mining. Elem. of Archt. p.m.	Elem. of Archt, p.m.	
13 T	hurs.	Pract. Chem. (2)	Hist. of Archt. a.m. and p.m.	Hist. of Archt. a.m. and p.m. Dyn. of Mach.	Elect. Eng. Geology. Machine Design.
14 F	ri.	Chemistry.	{ Mechl. Drawing. { Zoology.	{Mechl. Drawing. Geology. Phys. Lab.Wk.p.m	[Theory of Struct. Phys. Lab. Wk. p.m.
15 S	at.	Pract. Chem. (3)		{ Mining. { Thermodynamics.	Thermodynamics.
16 S	un.		•••••		
17 N		Mathematics.	Botany.	Railway Engin.	Railway Eng.   Geology.   Municipal Engin.
18 T	ues.		Mathematics.	Mathematics.	Mechl. Designing.
19 V	Wed.			Mineralogy (Adv.).	Geology.
20 T	hurs,				Metallurgy.
21 F	ri.			Mineralogy (Adv.).	
22 S	sat.				
23 S	sun.				
24 N	Ion.				
25 T	lues.				
26 V	Wed.				
27 ]	Thurs.				
28 F	Fri.	Convocation.			
-	1				

N.B.-The Examinations begin at 9.00 a.m. and 2.00p.m. when not specified otherwise.

I.-OFF II.-Cou G L E F i G S e H M M N i C h i Bo Zo Ge Me Ped Elo Phy Tin APPI III.-UNIV Lib Mus Phys Cher Bota Bota Zool Petre Obse

#### FOURTH YEAR.

.....

ology.

hemistry. heory of Struct. issaying. )yn. of Machin'y hemistry. lect. Engin. heory of Struct. ieology (Adv.). luncp. Eng. p.m. (Sanitary). lect. Engin. ieodesy. lechl. Eng. 

chl. Engin. Lab. lydraulics. a.m. and p.m. rg. Chemistry.

ct. Eng.

lect. Eng. eology. lachine Design. heory of Struct.

s. Lab. Wk. p.m.

rmodynamics.

..... ailway Eng. sology. unicipal Engin. echl. Designing. ogy.

allurgy.

.....

..... ..... 

..... .....

l otherwise.

..... ..... .....

## FACULTY OF ARTS.

## TABLE OF CONTENTS.

#### PART FIRST.

PAGE

IOFFICERS OF INSTRUCTION	3
IICOURSES OF LECTURES, ETC	
Greek	4
Latin	7
English	9
French	12
German	15
Semitic Languages	16
History	17
Mental and Moral Philosophy	
Mathematics and Astronomy	
Mathematics and Physics	22
Natural Philosophy	
Chemistry	-
Mineralogy	
Botany	
Zoology	
Geology	-
Meteorology	
Pedagogy	-
Elocution.	-
Physical Culture	-
Time Table 3	-
APPENDIX	

III.-UNIVERSITY EQUIPMENT.

I ibrary	35
Museum	36
Physics Building	37
Chemical Laboratories	40
Botanical Laboratories	40
Botanic Garden	41
Zoological Laboratory	41
Petrographical Laboratory	42
Observatory	42

4

### PART SECOND.

 $\mathbf{2}$ 

## PAGE I.-REGULATIONS FOR ENTRANCE ..... 44 I. Ordinary Course for B.A..... 52 2. Honour Courses and Exemptions ..... 55 3. M.A...... 58 LL.D...... 60 4. 5. Examinations...... 60 6. Exemptions for Students in Professional Faculties ...... 64. 7. Medals, Prizes, Classing, and Certificates ...... 66 Partial Students ..... 70 8. Attendance and Conduct..... 71 9. IV .- SCHOLARSHIPS, EXHIBITIONS, AND BURSARIES ...... 74 V.-GENERAL INFORMATION FOR STUDENTS ...... 80 VI. -SPECIAL COURSE FOR WOMEN ..... 81 Time Table ...... 85

SIR J. W the Faculty of

W. PETERSON ALEXANDER Faculty of . REV. J. CLAF BERNARD J. alogy. CHARLES E. M D. P. PENHAL REV. DANIEL Oriental Lite JOHN COX, M. A. JUDSON EA FRANK D. AD. -, Profess C. W. COLBY, FRANK CARTER ERNEST WILL -, Profess

PAUL T. LAFLI LEIGH R. GRE Literature. MAXIME INGRE (The a.

C. H. MCLEOD, NEVIL NORTON REV. H. M. TOI C. M. DERICK, J REV. J. L. MOR S. B. SLACK, M. F. H. PITCHER, ÂLEX. BRODIE, E HOWARD T. BAR J. P. STEPHEN, J R. TAIT MCKEN;

Faculty	of	Arts.

## Part First.

SIR J. W. DAWSON, LL.D., Emeritus Principal, and Emeritus Professor in the Faculty of Arts.

#### I. OFFICERS OF INSTRUCTION.

PROFESSORS.

W. PETERSON, M.A., I.L.D., Principal, and Professor of Classics.

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

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

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

CHARLES E. MOYSE, B.A., Professor of the English Language and Literature. D. P. PENHALLOW, B.Sc., M.A.Sc., Professor of Botany.

REV. DANIEL COUSSIRAT, B.A., D.D., O.A., Professor of Hebrew and Oriental Literature.

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

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

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

C. W. COLBY, M.A., Ph.D., Professor of History.

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

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

-, Professor of Chemistry.

LECTURERS.

PAUL T. LAFLEUR, M.A., Lecturer in Logic and English.

LEIGH R. GREGOR, B.A., Ph.D., Lecturer in the German Language and Literature.

MAXIME INGRES, Lecturer in French.

(The above Professors and Lecturers constitute the Faculty .- )

OTHER OFFICERS OF INSTRUCTION.

C. H. McLEOD, Ma.E., Superintendent of the Observatory.

NEVIL NORTON EVANS, M.A.Sc., Lecturer in Chemistry.

REV. H. M. TORY, M.A., Lecturer in Mathematics, and Demonstrator in Physics.

C. M. DERICK, M.A., Lecturer in Botany.

REV. J. L. MORIN, M.A., Sessional Lecturer in French.

S. B. SLACK, M.A., Lecturer in Classics.

. H. PITCHER, B.A.Sc., Demonstrator in Physics.

LEX. BRODIE, B.A.Sc., Demonstrator in Chemistry.

HOWARD T. BARNES, M.A.Sc., Demonstrator in Physics.

. P. STEPHEN, Instructor in Elocution.

R. TAIT MCKENZIE, B.A., M.D., Instructor in Physical Culture.

PAC	GE
4	4
5	I
	2
-	58
	0
	io
6	54
(	56
	70
	71
	72
	74
	80
	81
	85

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

## Professors :--W. Peterson, M.A., LL.D. Frank Carter, M.A.

#### Associate Professor :--A. J. Eaton, M.A., Ph.D. Lecturer :--S. B. Slack, M.A.

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

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

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

Subjects are suggested for Summer Readings in the various branches of class work. Students are strongly recommended to undertake these subjects during their long vacation, and credit will be given for them at an examination held in the course of the Session.

## Ordinary

## Greek.

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

> For 1898-99 the work will be Demosthenes, Olynthiacs I-III (Glover, Pitt Press); Homer, Odyssey IX (Mayor, Macmillan); Euripides, Alcestis, 1-746 (Hadley, Pitt Press). *History*—from B. C. 560 to 479, Cox's Greeks and Persians (Longmans' Epoch Series). For *Composition*, the manual used will be Abbott's Arnold's Greek Prose Composition (Longmans); for *Translation at Sight*, written and oral, Turner's Latin and Greek Passages (Longmans).

Second Year. 2. The work of the Second Year will be selected mainly from the Greek Dramatists, and from THUCYDIDES, PLATO or DEMOSTHENES.

Subjects SUMMER ] Press). His (Longmans ture.—Outli pp. I-IOO. portion of SESSIONA: Rivingtons) Sophocles, Clarendon ] Sight will t and Jerram'

The follow first two yea lehose); Jeb in Murray, J (in part); Primer of C graphy (Maa Syntax); or Greek Rudir Students sl tiquus.

Subjects fo 3. SUMMER Campbell & ponnesian W History, with Literature.—T and Orators SESSIONAL Li Euripides, Ipl Composition, will be used; mans).

4. Subjects SUMMER RE (Harper's); T study of Greel SESSIONAL LE bridge Universidon Press). Con Subjects for 1898-99:-

SUMMER READINGS. - Luciani Vera Historia (Jerram, Clarendon Press). History -The Athenian Supremacy; Cox's "Athenian Empire" (Longmans' Epoch Series) with Abbott's Pericles (Putnam). Literature.-Outlines as contained in Jebb's Primer of Greek Literature, pp. 1-100. Students are also recommended to work through some portion of Burnet's Greek Rudiments (Longmans).

5

SESSIONAL LECTURES-Thucydides, The Seige of Plataea (Sing, Rivingtons); and the Retreat from Syracuse (Rouse, Rivingtons); Sophocles, Ajax (Jebb, Rivingtons, or Campbell & Abbott, Clarendon Press). The practice of Composition and Translation at Sight will be continued as before ; Sidgwick's First Greek Writer and Jerram's Anglice Reddenda (First Series).

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

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

Subjects for 1898-99:-

3. SUMMER READINGS. - Sophocles, Antigone (Jebb, Pitt Press, or Campbell & Abbott, Clarendon Press). History.-The Peloponnesian War and Outlines to the Battle of Chaeronea (Oman's History, with Sankey's Spartan and Theban Supremacies, Longmans). Literature .- The origin and growth of the Drama. The Historians and Orators (Murray's Ancient Greek Literature, Heinemann).

SESSIONAL LECTURES.-Isocrates, Panegyricus (Sandys, Longmans); Euripides, Iphigenia at Aulis (Headlam, Pitt Press). For practice in Composition, Sidgwick's Introduction to Greek Prose Composition will be used; for Translation at Sight Fowler's Sportella (Longmans).

4. Subjects for 1808-00.-

SUMMER READINGS .- Merriam's "The Phaeacians of Homer" Fourth (Harper's); The Constitutional History of Athens, with a general study of Greek Antiquities and Literature.

SESSIONAL LECTURES .- Plato, Republic, I. and X. (Adam, Cambridge University Press); Aeschylus, Eumenides (Sidgwick, Clarendon Press). Composition and Translation at Sight as in the Third Year.

Third Year .

Year.

ory.

Ph.D.

years is divided ion and the readnt is at the same Literature, Anarious text-books

Honour Courses) id an attempt is nches of ancient life and thought. work prescribed overtaken in lec-

in the various mmended to unnd credit will be of the Session.

l principles (Ruof some Greek IN and EURIPIDES

Olynthiacs I-IIl or, Macmillan); History\_from (Longmans' ins will be Abbott's or Translation at Passages (Long-

mainly from the DEMOSTHENES.

The following books are recommended for general use: Gow's Companion to School Classics (Macmillan); Jebb's Growth and Influence of Classical Greek Poetry (Macmillan); Campbell's Guide to Greek Tragedy (Percival); Abbott's Pericles (Putnam); Jevon's or Mahaffy's or Murray's History of Greek Literature; Kiepert's Manual of Ancient Geography (Macmillan); Greenidge's Constitutional History. King & Cookson's Comparative Grammar (Clarendon Press).

6

## Honours

Third and Fourth Years. 5. The work of the Honours Classes in Greek has been so arranged as to admit of separate courses of lectures being given, with illustrative readings, along certain main lines of literary study, in addition to supplementary work as provided for below. In 1898-99, the Lecture Courses will be as under, the books selected for class reading being specified under each separate head :--

A. Greek Lyric Poetry : PINDAR, Seymour's Selected Odes (Ginn).

B. Greek Oratory : DEMOSTHENES, de Corona (Drake, Macmillan).

C. Greek Drama : EURIPIDES, Hercules Furens (Gray & Hutchinson, Pitt Press).

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

Prose Composition -Sidgwick, and from Dictation.

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

Private Reading.—Homer, Iliad XVI-XVIII (Leaf, Macmillan); Plato, Phaedo (Archer Hind, Macmillan); Thucydides, VI (Marchant, Macmillan); Sophocles, Antigone (Jebb, Pitt Press; or Campbell & Abbott, Clarendon Press).

In *History* the examination will be directed to testing a general knowledge of the course of Greek History to the death of Alexander, and a more minute knowledge of the development of the Athenian Constitution and the period of Athenian Supremacy. In *Literature*, a general knowledge will be expected of the course of Greek literature, and a more minute knowledge of the lives and writings of the authors prescribed.

6. Private Reading.—HOMER, Iliad, XVI-XVIII (Leaf, Macmillan); SOPHOCLES, Trachiniae (Jebb); HERODOTUS, Book VII (Butler, Macmillan); THUCYDIDES, VII (Marchant, Macmillan), ARISTOPHANES, Wasps (Starkie, Macmillan); Attic Orators (Jebb's Selections, Macmillan); ARISTOTLE, Poetics, omitting XX and XXV (Butcher, Macmillan); Ethics I, II, and X (Bywater, Oxford); THEOCRITUS, I-XV (Snow, Clarendon Press); PLATO, Gorgias (Lodge, Ginn).

History, Literature and Antiquities.—Oman, Symonds, Murray; Jebb's Growth and Influence of Classical Greek Poetry; Leaf's Companion Social Gran Giles's Gramn

I. In

(Sonne portion SALLUS For 1-622 ( Senect Pitt Pr text-bo Exercis and for (Longn burgh's Series). 2. Fo: SUMM History. Roman The Gra are also Manual SESSIO Macmill QUINTIL Ancient Composit Composi denda (1 The fc the first (Macmil) CAESAR ( Primer Lodge. Studen tiquus.

Third Year.

Fourth Year. ral use : Gow's b's Growth and Campbell's Guide nam); Jevon's or Kiepert's Manual Institutional His-Clarendon Press).

en so arranged as with illustrative , in addition to 8-99, the Lecture ss reading being

l Odes (Ginn). Macmillan).

7 & Hutchinson,

and Exercises

Literature, Com-

eaf, Macmillan); , VI (Marchant, or Campbell &

ting a general th of Alexander, of the Athenian In Literature, of Greek literawritings of the

(Leaf, Macmil-7II (Butler, Mac-OPHANES, Wasps ns, Macmillan); er, Macmillan); s, I-XV (Snow,

onds, Murray; y; Leaf's Companion to the Iliad; Butcher's Aspects of the Greek Genius; Mahaffy's Social Life in Greece; Jebb's Attic Orators.

Grammar and Philology.—Goodwin's Greek Moods and Tenses, and Giles's Short Manual of Philology (Macmillan); Monro's Homeric Grammar (Clarendon Press).

#### Latin.

I. In this class, besides a general review of grammatical principles Ordinary (Sonnenschein's Latin Grammar; Parallel Grammar Series)— First Year. portions of some Latin author, such as OVID, TIBULLUS, LIVY, SALLUST, VIRGIL, HORACE OF CICERO—are read and explained.

For 1898-99, the subjects will be OVID. Metamorphoses XIII, 1-622 (Keene, Bell & Sons; Simmons, Macmillan): CICERO, De Senectute (Howson, Longmans); VIRGIL, Georgics IV (Sidgwick, Pitt Press.) For practice in *Composition*, both written and oral, the text-book in use during the first two years will be Heatley's Latin Exercises (Longmans), with selected Passages for continuous Prose; and for *Translation at Sight*, Turner's Latin and Greek Passages (Longmans). *History.*—Carthaginian Wars, B. C., 263-146; Shuckburgh's History of Rome, or Rome and Carthage (Longmans' Epoch Series).

2. For 1898-99, the subjects will be :-

SUMMER READINGS. — Livy XXI (Capes & Melhuish, Macmillan). *History.*—The last Century of the Republic, B. C., 133-31; The Roman Triumvirates (Merivale, Longmans' Epoch Series); Beesly's The Gracchi, Marius and Sulla (Longmans' Epoch Series). Students are also recommended to work through some portion of Ramsay's Manual of Latin Prose Composition (Vol. I).

SESSIONAL LECTURES.—CICERO, The Fourth Verrine Action (Hall, Macmillan); HORACE, (Wickham's Selected Odes, Clarendon Press); QUINTILIAN X, ch. I, sections 37-131, being Quintilian's Review of Ancient Literature (Peterson, Clarendon Press, smaller edition). Composition and Translation at Sight, Ramsay's Manual of Latin Prose Composition, Vol. I. (Clarendon Press); and Jerram's Anglice Reddenda (First Series).

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

Students should provide themselves also with Kiepert's Atlas Antiquus. Second Year. Third Year. 3. Subjects for 1898-99.

SUMMER READINGS. — VIRGIL Aeneid VI. (Sidgwick, Pitt Press). History.—The Making of Rome (to 390 B. C.), Ihne's Early Rome (Epoch Series), and Shuckburgh's History. Literature.—Mackail's Primer of Roman Literature.

8.

SESSIONAL LECTURES.—Pliny's Letters—Books i-ii (Cowan, Macmillan); TERENCE, Phormio (Sloman, Clarendon Press); Martial, Selections.

The text-book for *Composition* will be Sargent's Easy Latin Prose Exercises (Clarendon Press); and for *Translation at Sight*, Fowler's Sportella (Longmans).

Fourth Year. 4. Subjects for 1898-99.

SUMMER READINGS. — TACITUS, Annals IV (Furneaux, Clarendon Press). *History.*—Capes's Early Roman Empire (Longmans' Epoch Series); or Bury's History (John Murray), down to Domitian.

SESSIONAL LECTURES.— LIVY, V (in part), (Whibley, Pitt Press); JUVENAL, Selected Satires (Strong, Clarendon Press); TIBULLUS Selections). Composition and Translation at Sight, as in the Third Year.

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

## Honours.

Third and Fourth Years. 5. As in Greek, the work of the Honours Classes in Latin has been so arranged as to admit of separate courses of lectures being given, with illustrative readings, along certain main lines of literary study, in addition to supplementary work as provided for below. In 1898-99, the Lecture Courses will be as under, the books selected for class reading being specified under each separate head :—

A. Latin Comedy and Satire : PLAUTUS, Captivi (Hallidie, Macmillan), and HORACE, Satires, Book I (Palmer, Macmillan).

B. Latin Oratory: CICERO, Pro Milone (Reid, Cambridge Press), with TACITUS Dialogus de Oratoribus.

C. Latin Poetry: LUCRETIUS, V (Duff, Pitt Press), and MARTIAL Selections (Paley and Stone, Bell).

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

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

## Prive CICERO

VI (Si Cicero, Histo the Fir from E Liter Roman writing 6. P CICERO. Pitt Pr Annals (Peters Histor Rome ( to Latin Gramn mar (Cl.

millan);

I. A. I

chiefly sy

reference graphs.

Studies

about tw

prose Es

critical ra

and grow

expression

establishi

(A) throu

style of th

B. EURO on the ou Pitt Press). Early Rome re.—Mackail's

1, Macmillan); al, Selections. Easy Latin ion at Sight,

x, Clarendon mans' Epoch )omitian.

Pitt Press); ULLUS Selec-Third Year.

general use: ckail's Latin Longmans); ape's Early Manual of

has been so en,with illusin addition to the Lecture eading being

, Macmillan),

Press), with

d MARTIAL

1 Exercises : Extracts ;

Anthe Antifil's

Literature,

**Private Reading.** HORACE, Epistles I (Wilkins, Macmillan); CICERO, Pro Roscio Amerino (Donkin, Macmillan); VIRGIL, Aeneid VI (Sidgwick, Pitt Press); SALLUST. Catiline (Capes, Clarendon Press); Cicero, Select Letters (Pritchard & Bernard, Clarendon Press).

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

Literature.—A general knowledge will be expected of the course of Roman Literature, and a more minute knowledge of the lives and writings of the authors prescribed.

6. Private Reading.—PLAUTUS, Trinummus (Gray, Pitt Press); CICERO, de Officiis (Holden, Pitt Press); HORACE, Odes I and II (Gow, Pitt Press); VIRGIL, Aeneid X. (Sidgwick, Clarendon Press); TACITUS, Annals I. (Furneaux, Clarendon Press); Dialogus de Oratoribus (Peterson, Clarendon Press); PERSIUS (Conington, Clarendon Press).

History, Literature, and Antiquities.—How & Leigh's History of Rome (Longmans); Tyrrell's Latin Poetry; Students' Companion to Latin Authors (Middleton & Mills, Macmillan).

Grammar and Philology.—Lindsay's Short Historical Latin Grammar (Clarendon Press) and Giles's Short Manual of Philology (Macmillan); Lindsay's Textual Emendation (Macmillan).

## English Language and Literature.

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

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

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

Studies of authors and masterpieces of English literature in a course of about twenty-five lectures. For 1898-9 the subject will be the leading prose Essayists of England from Bacon to Goldsmith. The treatment is critical rather than biographical, the intention being to explain the origin and growth of essay-writing as a characteristic form of modern literary expression, together with the causes which have assisted in permanently establishing its popularity. Incidentally, this course proves ancillary to (A) through the opportunity which it offers of discussing analytically the style of the authors under examination. One hour a week.

B. EUROPEAN HISTORY, (DR. COLBY)-Twenty-five lectures will be given on the outlines of Classical, Mediæval and Modern History, including

.

Third

Year.

Fourth Year.

Ordinary

Colonial expansion since the 15th century. The design of this course is less to present a mass of facts than to illustrate the chief features of racial, political and social progress. Short historical papers will be required at regular intervals from each student. One hour a week,

il

T

kr

th

me

Μ

M

we

vis

du

bee

(H

SII

Po

hou

1

En

riat

ed

(Re

Hai

mill

1

wor

Abs

Edi

Col

Ima

a w

18

and

exan

ed f

milla

Third Year. 2. A course on MIDDLE ENGLISH. (HAUCER'S, Prologue to the Canterbury Tales (Morris and Skeat, Clarendon Press) will be read in class, and used to illustrate the leading features of the development of the English Language. The life and thought of Chaucer's day will be touched on, and the social aspects of England illustrated by lantern slides. (To be taken with 3.) One hour a week.

Third Year. 3. A course on RHETORIC. Text-Book : GENUNG, Rhetoric. (To be taken with 2.) One hour a week.

Fourth Year. 4. A course on the LEADING POETS OF THE NINETEENTH CENTURY. The chief aspects of the French Revolution will be considered, and Republican feeling in England illustrated, chiefly from the works of WORDSWORTH, COLERIDGE and SOUTHEY. The indirect revolutionary poets BYRON and SHELLEY will then be considered, and their typical poems, together with those of the poets already mentioned, critically examined. The remainder of the course will be given to SCOTT, KEATS, TENNYSON, BROWNING and SWINBURNE—In the course for 1898-99, special attention will be given to Tennyson and Browning. One hour a week.

Private reading will also be required of the student, and the time to be given to this part of the subject may be regarded as equivalent to that required to obtain a good knowledge of the matter of the lectures.

#### Honours. Fourth Year.

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

Third Year. 6. ANGLO-SAXON. An elementary course on Anglo-Saxon. The object of the course is to make the student familiar with the grammar of the language and to enable him to read easy passages at sight. Leading features of Teutonic philology will be noticed when the text calls for them. Exercises in Anglo-Saxon scansion will form a part of the regular work of the class. *Text-Books*: SwEET, Anglo-Saxon Primer and Anglo-Saxon Reader, Extt. IV.-VIII., and the pieces in verse. Two hours a week.

of this course ief features of apers will be r a week,

ogue to the will be read the developof Chaucer's nd illustrated veek.

ietoric. (To

ENTURY. The ed, and Rene works of evolutionary their typical ed, critically icott, KEATS, for 1898-99, One hour

nd the time is equivalent latter of the

intended to c languages. relations of ospel of St.

axon. The he grammar jes at sight. hen the text form a part .nglo-Saxon he pieces in 7. ANGLO-SAXON, BEOWULF. The text will be read in class and illustrated by notes on origins, philology, and verbal emendations. *Text-Book*: Harrison and Sharp (Ginn). One hour a week.

8. EARLY AND MIDDLE ENGLISH. The course is intended to give a knowledge of dialectal English, and to illustrate the changes which the language has undergone. *Text-books*: MORRIS and SKEAT'S Specimens, Part II., Extt. I.-IX. CHAUCER, Parlement of Foules. (Skeat, Minor poems of Chaucer, Clarendon Press.) One hour a week.

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

10. ELIZABETHAN AND EARLY STUART PERIODS. The general influences visible in the literature of the periods will be noticed by way of introduction to a critical examination of the following works which have been selected for private study: SPENSER. Shepheards Calender (Herford, Macmillan); Faerie Queene, Bk. I. (Percival, Macmillan); SIDNEY, An Apology for Poetry (Cook); MILTON, Shorter English Poems (Browne, Clarendon Press); and Areopagitica (Hales). One hour a week.

11. SHAKSPERE. The social and literary conditions of Elizabethan England will be noticed, and the characteristics of the pre-Shaksperian drama specially illustrated. The following plays have been selected for special criticism and private study: Love's Labour Lost (Rolfe); A Midsummer Night's Dream (Deighton, Macmillan); Hamlet (Deighton, Macmillan); and the Tempest (Deighton, Macmillan). One hour a week.

12. LATER STUART PERIOD. The method of 10 will be followed. The works selected for private study are : DRYDEN, Annus Mirabilis, Absolom and Achitophel, Part I., the Preface to the "Fables" (Globe Edition, or for Absolom and Achitophel, Dryden's Satires, ed. Collins, Macmillan). ADDISON, Essays on Paradise Lost and on the Imagination (Spectator, ed. Henry Morley, Routledge). One hour a week.

13. LATER STUART PERIOD. An introductory sketch of the critical and philosophical essayists in verse, leading up to a more minute examination of the following works of POPE, which have been selected for private study : Essay on Criticism (Churton Collins, Macmillan); Essay on Man (Morris, Macmillan). One hour a week. Fourth Year.

Third Year.

Fourth Year.

> Third Year.

Fourth Year.

> Third ! Year.

Fourth Year. Third Year. 14. PERIOD OF POPULAR INFLUENCE. Influence of the French Revolution. The influence of the French Revolution on contemporary English Literature will be discussed. The following poems have been selected for special criticism and private study WORDSWORTH, Prelude (Moxon's edition or Dent's), and CAMPBELL, Pleasures of Hope. One hour a week.

In

to

th

tic

to ele

an

inc

of

(G

Pa

BA

aff

Er

Stı

edi

adutica

chc

ed.

VIC

Vil

giv

I

T Stu

T

3

trea

logy

teris

sche

belo

trat

clas

ther

prev

et V

5

Fourth Year.

15. MODERN POETS. An interpretation in detail of TENNYSON'S In Memoriam and a comparative criticism of other famous English poems of the same class. An outline of the growth of the Arthur Saga and a special examination of TENNYSON'S Idylls of the King. BROWNING, Christmas Eve and Easter Day.

In addition to the poems just mentioned, MILTON'S Lycidas. SHELLEY'S Adonais, and MATTHEW ARNOLD'S Thyrsis have been selected for private study. One hour a week.

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

**Honour** students of the Fourth Year will, in like manner, take the following : MORE, Utopia ; MATTHEW ARNOLD, Essays in Criticism (the Second Series).

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

#### French.

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

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

## Ordinary First Year.

1. The following outline will indicate the character of the course: (a) The oral reproduction of stories by French writers of the present century, so selected as to bring out the national aspects of French life. ch Revoemporary ems have DSWORTH, easures of

e Arthur he King.

Lycidas, been se-

ly study ng from STEPHEN, X., secs. honours. her, take Criticism

e above n. The present

> ed with ge with ion will both in French to the

course: present ich life. In connection with this part of the work, words will be referred to groups and their formation noticed. (b) Biographical sketches of the leading writers of the present century, illustrated by typical selections from their works, which will be read by the class, and committed to memory. Points of grammar will be treated incidentally, and the elements of French prosody taught. (c) Private Reading, the amount and character of which will be determined by the requirements of the individual student. The following works may be taken as specimens of the literature chosen for the class : Pages choisies d'ANATOLE FRANCE (G. Lanson), ed. Colin ; Pages choisies d'ALEXANDRE DUMAS (H. Parigot), ed. Colin; A. DE VIGNY, Servitude et Grandeur militaire; BALZAC, Eugénie Grandet. In the examination of the students of affiliated colleges the extracts given for translation from French into English will be taken, in part, from the four works mentioned above. There will be regular written exercises-dictation and composition. Students are recommended to use Le Dictionnaire Larousse (Paris edition.) Four hours a week.

2. The method of the course is the same as that of I, but the more advanced points of grammar will be treated, and in literature particular attention will be directed to characteristics of style.

The following works may be taken as specimens of the literature chosen for the class: Pages choisies de G. FLAUBERT (G. Lanson), ed. Colin; Pages choisies de TH. GAUTIER (P. Sirven), ed. Colin; VICTOR HUGO, Notre Dame de Paris; G. SAND, Le Marquis de Villemer.

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

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

Three hours a week.

3. A continuation of 2. The form and origin of words will be treated more fully than in previous courses, and an outline of philology given. In the literary portion of the course the leading characteristics of the Classic, Romantic, Realistic, Impressionist and other schools will be described. Biographical sketches of writers who belong to the XVII. and XVIII. centuries will be given, and illustrated by typical selections from their works, which will be read in class and committed to memory. The following works, or portions thereof, of the same period have been chosen for private reading previous to their consideration by the class : B. DE ST. PIERRE, Paul et Virginie; VOLTAIRE. Siècle de Louis XIV.; ROUSSEAU, Emile, Le

Third

Year.

Contrat Social; CORNEILLE, Le Cid, Horace, Cinna; RACINE, Athalie, Phèdre, Andromaque; Molière, Tartuffe, Le Misanthrope, Le Bourgeois Gentilhomme; MME DE SEVIGNÉ, Lettres; BOSSUET, Discours sur l'Histoire universelle; Oraisons funèbres; PASCAL, Lettres provinciales.

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

Fourth Year. 4. Important historical changes of various kinds in the vocabulary of French will be noticed, and sentences presenting peculiar difficulties explained. The origin of the French language will be more fully treated, and French literature previous to Corneille read. Biographical sketches of leading writers of that period will be given, and typical selections from their works committed to memory. The following works or portions thereof, have been chosen for private reading previous to their consideration by the class: MONTAIGNE, Essais, La Satire Ménippée; DESCARTES, Discours de la méthode; AMYOT, Traduction de Plutarque; CALVIN, L'Institution chrétienne; RABELAIS, Gargantua, Pantagruel; COMMINES, LOUIS XI.; JOINVILLE, Vie de saint Louis; FROISSART, Chroniques; VILLEHARDOUIN, Chroniques.

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

Flonours. Third Year.

5. Grammar.—A course on French grammar treated historically. Students are recommended to consult the following works: BRACHET, Grammaire Historique de la Langue Française, Dictionnaire Etymologique; BRUNOT, Grammaire historique de la Langue française; CLÉDAT, Grammaire de la vieille langue française; LITTRÉ, Histoire de la Langue française; F. BRUNETIÈRE, Etudes critiques; G. PARIS, La Littérature française au moyen age.

Literature.—The student is expected to undertake a thorough study of the following works, portions of which will be read in class : LE ROMAN DE LA ROSE; LE ROMAN DE RENART ; J. BÉDIER, Les Fabliaux; PETIT DE JULLEVILLE, Les Mystères.

Two hours a week.

Fourth Year. 6. A course in Old French. The student will be guided in a comparative study of the Romance languages, and will use the following works of reference : E. RENAN, Essaie sur la Poésie des Races celtiques; EGGER, l'Hellénisme en France; ROQUEFORT, Glossaire de la Langue romane; CUSGNY, Grammaire de la Langue d'Oil; BRÉAL, Grammaire comparée; F. DIEZ Grammaire des Langues romanes; MEYER-LUBKE, Grammaire des Langues romanes. The and in JEAN Le Ro LA VIE Two

The as poss he may collogu tion is Largua Fourth reading critical, A cons German 1. T FREYTA millan) Maria : Four 2. T Jungfra Die Ha Two

3. Bi Nathan into Ge Two

4. Sc Prose Sc Two

Lectur They rep In additi Athalie, .e Bour-Discours res pro-

cabulary fficulties ore fully Biograren, and c followling prea Satire aduction Garganle saint

> orically. RACHET, Etymoinçaise; Iistoire . PARIS,

h study ass : LE abliaux;

a comlowing :es cel-: de la BRÉAL, nanes; 15

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

JEAN BODEL, Le Jeu de saint Nicolas ; WACE, Le Roman de Rou, Le Roman de Brut, LA CHANSON DE ROLAND ; LA VIE DE SAINT ALEXIS, LA VIE DE SAINT LEGER.

Two hours a week.

## German Language and Literature.

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

The ordinary Courses mainly keep practical ends in view. As far as possible they place the student at the German standpoint, so that he may study the language from within. Some time is devoted to colloquial exercises in the First and Second Courses; special attention is given to Literature in the Third and Fourth. The German Larguage is employed to a considerable extent in the Third and Fourth Courses. Importance is attached to correct and expressive reading. Classic texts are carefully studied, from the aesthetic and critical, as well as from the historical and linguistic points of view. A considerable amount of translation is done in class, and English-German exercises are supplemented by the "retranslation" of texts.

1. THE JOYNES-MEISSNER German Grammar (Heath & Co.); First Year. FREYTAG, Die Journalisten; UHLAND, Ballads and Romances (Macmillan); BAUMBACH, Der Schwiegersohn (Heath & Co.); SCHILLER, Maria Stuart; prominence is given to written exercises.

Four hours a week.

2. THE JOYNES-MEISSNER German Grammar; Schiller, Die Jungfrau von Orleans; STORM, Immensee (Heath & Co.); HEINE, Die Harzreise; Dictation; prominence is given to written exercises. Two hours a week.

3. BENEDIX, Die Hochzeitsreise; GOETHE, Iphigenie; LESSING, Th Nathan der Weise; German Grammar; Translations from English Te into German; History of German Literature.

Two hours a week.

4. SCHILLER, Die Braut von Messina; GOETHE, Egmont; HEINE, FOU Prose Selections; German Grammar; History of German Literature. Ye Two hours a week.

Lectures in this Course are given entirely in the German Language. Honours. They reproduce and extend the main elements of the Ordinary Courses. In addition to this class of studies an account is given of the develop-

Third Year.

Fourth Year.

umth

ment of the German Language. Students are encouraged to undertake independent work, to write German compositions on literary subjects of especial interest to themselves. In order to obtain First or Second Rank honours, candidates must also be capable of speaking German.

Two hours a week.

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

Third Year.

5a. A special study of GOETHE'S Faust (Part I.); GOETHE, Leiden des jungen Werther; Selections from HERDER'S Volkslieder; Macmillan's German Composition.

N.B.-The above constitutes the Additional course. See p. 57.

5b. GOETHE, Egmont; LESSING, Emilia Galotti; Extracts from FREYTAG'S Bilder aus der deutschen Vergangenheit; Schiller Don Carlos; History of German Literature (KLUGE); Historical Grammar.

Fourth Year.

6a. LESSING, Laokoon; BEHAGHEL, Deutsche Sprache; GRILLPARZER, Sappho; Schiller, Die Braut von Messina; Macmillan's German Prose Composition.

N.B.-The above constitutes the Additional Course. See p. 57.

6b. GOETHE, Sessenheim (Heath & Co.); KLOPSTOCK, Messias. (one canto); WIELAND, Oberon (Selections); SUDERMANN, Die Ehre; SCHEFFEL, Trompeter von Säkkingen, Selections from HEINE'S Lyrical Poems; HARTMANN von AUE, Gregorius auf dem Steine; ZARNCKE, Das Nibelungenlied. History of German Literature (KLUGE); Original Compositions in German.

## Semitic Languages.

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

The course comprises lectures on the above languages and their literature, their genius and peculiarities. Comparative philology, affinity of roots, etc., also receive due attention, while the portions selected for translation will be illustrated and explained by reference to Oriental manners, customs, history, etc. 1. THE Twen Mediae the 15th mass of and soc be take papers English, O

1. He

2. ' He

3. Tra

4a. H

5a. He

5b. Sy

4b and

A

t

F

C

T

46.

red to unders on literary obtain First ble of speak-

take lectures are taken up

THE, Leiden Volkslieder ;

ee p. 57.

stracts from it: SCHILLER UGE); His-

GRILLPARZER, Macmillan's

ee p. 57.

K, Messias. RMANN, Die ctions from regorius auf v of German Ferman.

d'Académie.

s and their philology, he portions y reference 1. Hebrew grammar and translation continued. English rendered Ordinary into Hebrew. Masoretic notes explained. The Hebrew text Second compared with the Septuagint and Vulgate Versions. Year. Two hours a week. 2. Hebrew Syntax. Translation of difficult passages of the Old Tes-Third tament. Notes on the MASSORA and the TALMUD (Mishna and Year. Gemara). Two hours a week. 3. Translation continued. Characteristics of the Semitic Languages. particularly of ARAMAIC, SYRIAC, SAMARITAN, RABBINIC, ARABIC, ASSYRIAN, SEMITIC INSCRIPTIONS. Two hours a week. 4a. HEBREW. Genesis. Isaiah, 40-66. Ecclesiastes. Literature.-F. LENORMANT, The beginnings of History. ARAMAIC, -Daniel. Ezra. Selections from the Targums. Litera-**4**b. ture .- SAYCE, Lectures on the Origin and Growth of Religion. Two hours a week. 5a. HEBREW.-Malachi, Psalms, 1-72; Job, 26-42. Fourth Literature. RENAN. A general History of the SemiticLanguages. 5b. SYRIAC .- Selections from the Peshito, and from the CHRONICLES OF BAR HEBRÆUS. Literature .- W. WRIGHT, Comparative Grammar of the Semitic Languages.

Two hours a week.

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

#### History.

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

Ordinary First]Year.

1. THE MAIN EPOCHS OF EUROPEAN HISTORY.

Twenty-five lectures will be given on the outlines of Classical, Mediaeval and Modern History, including colonial expansion since the 15th century. The design of this course is less to present a mass of facts than to illustrate the chief features of racial, political and social progress. At the Sessional Examination the results will be taken account of under the head of English. Short historical papers will be required at regular intervals from each student. (Vide English, I. pp. 9 and 10.)

B

One hour a week.

17

Fourth Year.

Honours Third Year.

Year.

Second Year.

2. THE POLITICAL HISTORY OF EUROPE FROM 1789 TO 1878.

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

Honours.

Third and 3. THE GERMAN INROADS AND THE MIDDLE AGES.

Two hours a week.

Fourth Year.

These lectures extend from the recognition of Christianity as a state religion to the death of Dante. Among the subjects with which they deal may be reckoned the character and organization of the Early Church; the laws, political institutions, and conquests of the German nations; the Empire of Charlemagne; the Holy Roman Empire in its relations with the Papacy; Feudalism; Monasticism; the Crusades; Romanesque and Gothic Architecture; the Schoolmen; and Dante. An attempt will be made to present mediaeval civilization in its positive aspects.

Three hours a week.

4. STUDIES IN THE HISTORY OF DEMOCRATIC INSTITUTIONS DURING THE MIDDLE AGES.

Two hours a week. (Omitted in 1898-99.)

5. THE RENASCENCE AND THE REFORMATION. Three hours a week. (Omitted in 1898-99.)

6. THE FRENCH REVOLUTION, 1789-95. Three hours a week. (Omitted in 1898-99.)

#### SUMMER READINGS.

Students who are devoting special attention to the literary branches of the University course are advised to read, during the long vacation, either the first or the second set of the subjoined selections.

I. HERODOTUS, VI-VIII, Macaulay's trans.; THUCYDIDES, I., II., 1-65, VI., VII., Jowett's trans : PLATO, the Republic, Jowett's trans : PLUTARCH, the Lives of Aristides, Themistocles, Pericles, and Timoleon, Clough's trans : POLYBIUS, I., II., V., Shuckburgh's trans; LIVY, XXI.-XXII., Church and Brodribb's trans : TACITUS, Annals II., Germania, Vita Agricolae, Church and Brodribb's trans. 1. This gy, in th among ot and to JE Three h

II. CL

D

Re

A

II

Cł

Ch

Er

an

(F

2. In the Students a Two ho

In the s blems in th principal s blem, also, light which are referred logy, Book on some p Two hou

3. This follows, in Introduction on ethical of Three hou

4. This c sophy. It i phical activit in Asia Min

topical rather g movements he course of ubjects to be mocracy and tical state of

378.

stianity as a ubjects with ganization of conquests of Holy Roman Monasticism; Schoolmen; eval civiliza-

DURING THE

ry branches ng vacation, ons.

I., II., 1-65, vett's trans : vericles, and huckburgh's ob's trans : Church and 19

II. CLARENDON, History of the Rebellion, Book XI.; GIBBON, Decline and Fall, Chaps. XLIV., L., LI., LXVI.; BURKE, Reflections on the French Revolution; HALLAM, Middle Ages, Chap. III.; MACAULAY, History of England, Chap. III.; BAGEHOT, The English Constitution; STUBBS, Select Charters. Introduction; BRYCE, The Holy Roman Empire, Chaps. I.-XV.; LORD ACTON, German Schools of History, English Historical Review, Vol. I.; MATTHEW ARNOLD, Pagan and Mediaeval Religious Sentiment, in Essays in Criticism (First Series).

## Mental and Moral Philosophy.

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

Ordinary holo-Second erred, Year.

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

Three hours a week.

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

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

Two hours a week.

3. This course is devoted entirely to Moral Philosophy, and follows, in its general outline, the subjects discussed in MURRAY'S Introduction to Ethics. Students are also required to write essays on ethical questions.

Three hours a week.

4. This course is devoted mainly to the history of Greek Philosophy. It begins with the colonial period, during which philosophical activity was most energetic among the colonies of the Greeks in Asia Minor and Italy. It then passes on to the Athenian period,

Fourth Year.

Honours. Third Year.

Year.

Third

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

Two hours a week.

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

Part I.—Schwegler's History of Philosophy, Chapters 1-21 inclusive; Mill's System of Logic, Books IV. and V.; James' Principles of Psychology, Chapters 10-16 inclusive; selected portions from Thomson's Outline of the Laws of Thought, from Jevons' Principles of Science, and from Venn's Empirical Logic. Any two of these subjects, along with the Honour Lectures, may be taken as the Additional Course.

Part II.—Plato's Theatetus (by S. W. Dyde); Fraser's Selections from Berkeley.

Fourth Year.

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

First term, two hours a week ; second term, one hour a week.

6. The other course is on the History of English Philosophy from Hartley to Herbert Spencer. The lectures discuss the chief characteristics of English thought during the last one hundred and fifty Part I

Part Il

1. MAT

when Philoual life in the which Philo-1 of the great arose towards ount 1s given and by which intal thought. in Schools in are also given nour Course. the fragments v embodying

the lectures,

-21 inclusive; es' Principles cted portions ought, from i's Empirical the Honour e.

r's Selections

ne is devoted sketching the se gives some by Bacon and The Idealistic ainly in three e Cambridge ement originan movement th a lengthy

ir a week.

losophy from chief characlred and fifty years, more particularly as shewn in the works of English psychologists and political writers during that time. The writers to whom special attention is given are : in Psychology-PRIESTLEY, HARTLEY ERASMUS DARWIN. the two MILLS, BAIN, and HERBERT SPENCER ; in Political and Social Science-BURKE, PAINE, GODWIN, PALEY, References are also made to minor writers, BENTHAM, MALTHUS. whose work may be deemed to be of sufficient importance in the general movement and development of philosophy. No text-book is specially recommended; but the student is expected to read appointed selections from the writers under discussion, as well as to consult LESLIE STEPHEN'S History of English Thought in the Eighteenth Century, and a few chapters in LEWES' History of Philosophy. The principal points emphasized in the lectures are the empirical character of the English school in psychology and metaphysics, and the practical, utilitarian view of English political writers.

Second term; one hour a week.

Students are expected to write an essay exhibiting an independent study of one of the modern philosophers.

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

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

## Mathematics and Astronomy.

Professor :- Alexander Johnson, M.A., LL.D. Lecturer :- Rev. H. M. Tory M.A.

Ordinary

1. MATHEMATICS-Arithmetic.-Euclid, Books, I, 2, 3, 4, 6 (omit- First Year ting propositions 27, 28, 29), with definitions of Book 5, TODHUNTER'S edition, or HALL AND STEVENS'; the latter is recommended to Students in Advanced Sections especially. COLENSO'S Algebra (Part I.) to end of Quadratic Equations. -GALBRAITH AND HAUGHTON, Plane Trigonometry. Nature and use of Logarithms. Four hours a week.

ſ

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

Second. Year.

3. MATHEMATICS. - Arithmetic, Euclid, Algebra and Trigonometry as before .- Nature and use of Logarithms .- Numerical solution of triangles and practical applications. One hour a week.

Third Year 4. (Optional, but open to those only who have studied Mathematical Physics) .- ASTRONOMY-LOCKYER, Elementary Astronomy, English edition ; first five chapters, viz. : The Stars and Nebulae ; The Sun ; The Solar System ; Apparent movements; Time. Students are recommended to use with this an "Easy Guide to the Constellations," by GALL. This subject is taken with Optics.

Hours to be arranged.

Fourth Year.

ASTRONOMY .- (Optional.) GALBRAITH and HAUGHTON'S Astronomy or Brinkley by Stubbs and Brunnow .- This subject is taken with Optics as one course. The lectures will be given before Christmas.

First term ; two hours a week.

#### Mathematics and Physics.

Professors (Mathematics) :- A. Johnson, M.A., LL.D. 66 (Physics) :- John Cox, M.A. ..

Lecturer (Mathematics, First Year):-Rev. H. M. Tory, M.A. Demonstrators in Physics:-Rev. H. M. Tory, M.A., and F. H. Pitcher, B.A.Sc.

Second. Year.

Honours. 6. MATHEMATICS.-LOCK, Higher Trigonometry, with McClelland and PRESTON, Spherical Trigonometry, Part I.; SALMON, Conic Sections, chapters 1, 2, 3, 5, 6, 7, and 10 to 13 inclusive; WILLIAMSON, Differential and Integral Calculus (selected course). Three hours a week.

Third Year.

7. MATHEMATICAL PHYSICS .- MINCHIN, Statics, Vol. I. (selected chapters); WILLIAMSON and TARLETON, Dynamics, Chaps. I to 8 inclusive ; BESANT Vol. I., Hydro-Mechanics, Part I., chaps. I, 2, 3, 7; PARKINSON, Optics.

Two hours a week.

\* Honours may be awarded in the Advanced Section (see page 52.)

The A1 tition in §

8. M

MA 9.

1

F

F

F

li

cl

D

M

of EXPER

10. Pr

11. M.

I. PHYS um acqui cation to ductory t Science, : and Foun branch of to their 1

Y, Sequel to FODHUNTER OF ected course).

gonometry as crical solution

Mathematical Astronomy,

he Stars and t movements; his an "Easy oject is taken

s Astronomy ject is taken given before

> M.A. and F. H.

McCLELLAND .; SALMON, to 13 incluus (selected

(selected Chaps. I to t I., chaps.

hage 52.)

8. MATHEMATICS. — WILLIAMSON, Differential and Integral Calculus and BOOLE or FORSYTH, Differential Equations, or Salmon, Geometry of Three Dimensions, (alternate years).

ASTRONOMY.--GODFRAY. Two hours a week.

EXPERIMENTAL PHYSICS .- Courses 5 and 7.

- 9. MATHEMATICS.—WILLIAMSON, Differential and Integral Calculus; SALMON, Conic Sections; SALMON, Geometry of Three Dimensions (course selected in text-book); BOOLE or FORSYTH, Differential Equations (selected course).
- PHYSICAL ASTRONOMY.—GODFRAY, Lunar Theory; or CHEYNE, Planetary Theory; or the Theory of the Tides; NEWTON, Principia, Lib. I., secs. 9 and 11, with the necessary preliminary propositions.
- 11. MATHEMATICAL PHYSICS.—MINCHIN, Statics, Vol. II., selected chapters; WILLIAMSON and TARLETON, Dynamics; ROUTH, Dynamics of a Rigid Body (for reference); BESANT, Hydro-Mechanics; PRESTON, Theory of Light; CUMMING, Theory of Electricity.

EXPERIMENTAL PHYSICS .- Courses 6 and 8.

The ANNE MOLSON MATHEMATICAL PRIZE (\$64) will be offered for competition in September in a part of the above courses.

## Natural Philosophy.

Professors :- John Cox, M.A.

Demonstrators :- Rev. H. M. Tory, M.A. F. H. Pitcher, B.A.Sc. Howard T. Barnes, M.A.Sc.

#### I. Physics.

I. PHYSICS. —This course has two objects:—(1) to give the minim- Ordinary um acquaintance with Physical Science requisite for a liberal edu- First Year. cation 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

23

Fourth Year. receive concrete illustration in the study of the principal instruments in daily use in the laboratory. Two illustrated lectures will be given per week. During the session each student will be required to attend in the laboratory eight times, and make measurements involving the use of the following instruments;—Balance, Pendulum, Barometer, Thermometer, Sonometer, Spherical Mirror or Lens, Tangent Galvanometer, Wheatstone's Bridge.

24

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, Connection and Radiation to common problem<sub>8</sub> of Climate, Ventilation, etc.

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

(4). Electricity and Magnetism. The Electrophorus, the Modern Induction Machine, the Condenser. Coulomb's Law of Force. The idea of Potential. The Quadrant Electrometer. Atmospheric Electricity, Magnetic Pole, Moment, Field, and Law of Force. The Compass and Terrestrial Magnetism. Effects of Current. The Voltameter and Storage Cell. The Galvanometer. Heating effects. Simple Batteries. Ohm's Law. Units and Measurement of Current, 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. Description of Energy.

Two hours a week.

Ordinary Second Year.

#### II. Mathematical Physics.

 ELEMENTARY MECHANICS. One hour a week up to February. An introductory course, without a Text-book, developing the fundamental principles of Mechanics. One hour a week. In I spent i atory, Lectur

M

4. 0

5. LA

6. EL

7. (

**(b)** 

8.

(0)

al instruments s will be given required to atements involvmdulum, Baro-Lens, Tangent

4. (

ience. Primary ion, Velocity, , Work. The brium and the n, the Penduy. Summary ion of Energy. wave Motion. retched String

e Calorimeter, Lussac. The onnection and n, etc. lirror, Prism, ope. Principle

, the Modern f Force. The ospheric Elecce. The Comhe Voltameter ects. Simple urrent, Resists of Conduc-Motor. The of the Dynaand supply of

on of Energy

to February. eveloping the

MECHANICS AND HYDROSTATICS ;	Text-hook	LONEY	Mechanics	Third
and Hydrostatics for Beginners.	1 040-0000,	LONEI,	Meenames	Year.
Two hours a week till January.				
OPTICS; Text-book, GALBRAITH and H	HAUGHTON.			Third
Two hours a week, from January	to end of	Session	• (10 may)	Year.

#### 1II. Experimental Physics.

5.	LAWS OF ENERGY, S	OUND, LIGH	T AND	HEAT. Text-l	ook, GANOT	Third
	or JONES, Physics	. Lectures	fully	illustrated.		Year
	Two hours a we	ek.		1		

 ELECTRICITY AND MAGNETISM. Text-Book, GANOT or S. P. THOMPSON, Physics. Lectures fully illustrated. Two hours a week.

### IV. Laboratory Courses.

In Experimental Physics, requiring three hours per week to be spent in practical measurements in the Macdonald Physical Laboratory, during the Third and Fourth Years, in conjunction with the Lecture Courses 4 and 5.

- SOUND —Velocity of Sound ; Determination of rates of vibration of Tuning Forks ; Resonance ; Laws of vibration of strings.
  - (b) LIGHT-Photometry; Laws of Reflection and Refraction; Indices of Refraction; Focal Lengths and Magnifying Powers of Mirrors, Lenses, Telescopes and Microscopes; the Sextant, Spectroscope, Spectrometer, Diffraction Grating, Optical Bench, and Polariscopes.
  - (c) HEAT—Construction and Calibration of Thermometers; Melting and Boiling Points; Air Thermometer; Expansion of solids, liquids, and gases; Calorimetry.
- 8. MAGNETISM.—Measurements of Pole Strength and Moment of a Magnet; the Magnetic Field; Methods of Deflection and Oscillations; comparison of moments and determination of elements of Earth's magnetism. Frictional Electricity. Current Electricity.—Complete course of measurements of Current Strength, Resistance and Electromotive Force; Calibration of Galvanometers; the

Third Year.

Fourth

Year.

#### Fourth Year.

Electrometer; comparison of Condensers; Electromagnetic Induction.

Text-book.-GLAZEBROOK and SHAW, Practical Physics. N.B.-For Advanced Courses intended for Electrical Engineering Students and Graduates pursuing the study of Physics, see Calendar, Faculty of Applied Science.

26

#### Chemistry.

## Professors :- B. J. Harrington, M.A., Ph. D.

Lecturer :--Nevil Norton Evans, M.A.Sc. Demonstrator :--Alexander Brodie, B.A.Sc.

1a. 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, and are supplemented by tutorial classes. This course, given in the Faculty of Applied Science, is open to Partial Students in Arts.

Three hours a week.

One afternoon a week.

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

16. ELEMENTARY PRACTICAL CHEMISTRY.— Experiments in connection with the above course of lectures performed by the students, and Elementary Qualitative Analysis. (Open to Partial Students in Arts.

#### Ordinary

Second Year.

2. INORGANIC CHEMISTRY (Advanced and Optional).—The Chemistry of the principal electro-positive elements and their compounds. (Arrangements may be made for this Course for Session 1898-99.)

Third Year 3. ORGANIC CHEMISTRY.-Lectures, with occasional demonstrations, on the analysis of organic bodies, calculation of formulæ. determination of molecular weights, polymerism, isomerism, etc., followed by a discussion of some of the more important Methane derivatives and their constitution. Students intending to enter the Medical Faculty, would find courses 3 and 4 and the laboratory work connected therewith of great advantage.

Fourth Year.

4. ORGANIC CHEMISTRY.—Lectures in continuation of those in Course 3, discussing some of the principal Benzene and Pyridine derivatives. Students should have previously taken Course 3. 5. AN

6. ANA

n

ti

7. PHY:

St

in

the

1

gati

forr

desc

MINER

spec

impo

9.

F

8. MINEL

speci

Th

#### Electromag-1:

ical Physics. rical Engineersics, see Calen-

.A., Ph. D.

M.A.Sc. e, B.A.Sc.

on elementary and their commeans of exs. This course, to Partial Stu-

tudy of Che-

in connection the students. artial Students

he Chemistry compounds. Session 1898-

monstrations. of formulæ, , isomerism, re important nts intending ses 3 and 4 it advantage.

of those in ie and Pyriously taken 5. ANALYTICAL CHEMISTRY (QUALITATIVE).—A systematic study of the Third Year more important bases and acids, including their detection and separation. The laboratory work is accompanied by explanatory lectures.

Text-book .-- Qualitative Chemical Analysis, by ARTHUR A NOYES.

Six hours a week.

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

## Text-book.-CLOWES & COLEMAN'S Quantitative Analysis. Six hours a week.

7. PHYSICAL CHEMISTRY (Optional) .- A course of lectures on Third Year Stoechiometry and Chemical Affinity. Special attention is directed to those parts of the subject which have a direct bearing on the processes of practical chemistry, such as the modern theories of solution and electrolytic dissociation. One hour a week.

## Mineralogy.

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

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

First term, one hour a week; second term, two hours a week.

9. MINERALOGY (In continuation of No. 8.).-Description of species, particular attention being paid to those which are important as rock constituents and to the economic minerals of Canada.

First term, two hours a week.

10. DETERMINATIVE MINERALOGY .- Laboratory practice in blowpipe Third Year analysis and its application to the determination of mineral species.

Thursday, 2 to 5 p.m.

27

Fourth Year.

Fourth Year.

## Botany.

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

#### Ordinary Second Year.

**1.** GENERAL MORPHOLOGY. This course is designed to give a thorough general knowledge of the principles of General Morphology and Classification. It comprises :

0

S

tı

0

p ty

A

F

N

S

ha

in

B

n

ci

at

w

zc

gi

SI

tw

ci

wi

1.

GENE

of

1. ELE

2. ADV

(a) A practical course embracing the determination of species from both fresh and dry material, and type studies of Spermatophytes, Pteridophytes, Bryophytes and Thallophytes, with reference to their life histories. Gray's Manual, Penhallow's Outlines of Classification, and Botanical Collector's Guide.

First term, three hours a week.

(b) A course of lectures dealing with General Morphology and Classification, Elements of Histology, and Physiology; Biological relations of plants; Geographical Botany. Second term, two hours a week.

Third Year 2. ADVANCED BOTANY. This course, open only to students who have taken Botany 1, is designed to give an extended knowledge of

vegetable anatomy and special morphology. It comprises :--(a) Optics and construction of the microscope; determination of amplifications; micrometry; drawings; section cutting; preparation of microscopic objects; micro-chemical reactions; study of cell contents and tissues; comparative studies of type forms of angiosperms and gymnosperms.

Botanical Microtechnique (Zimmermann, trans. by Humphrey). Six hours a week.

(b) A course in Special Morphology, forming a part of the Honours Course in Biology, and open to students who have satisfactorily completed Botany 1 and 2a, of which latter it is a continuation. It includes critical studies of the structure and development of the Thallophyta, Bryophyta and Pteridophyta, together with special readings on Biological problems. The following types will be studied:—A Myxomycete, Bacteria, Chroococcus, Nostoc, Rivularia, Spirogyra Pleurococcus, Oedogonium, Vaucheria, Fucus, Nemalion, Rhizopus, Penicillium, Puccinia, Agaricus, Pellia, Polytrichum, Pteris, Equisetum, Lycopodium, Selaginella. Comparisons with other forms in each group will also be made.

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

Six hours a week.

## Honours Fourth Year.

 $\mathbf{28}$ 

ned to give a les of General

C.

ation of species es of Spermatotytes, with referallow's Outlines aide.

Morphology and ysiology ; Bioany.

by Humphrey).

g a part of the ents who have which latter it if the structure a and Pteridogical problems. ycete, Bacteria,

Pleurococcus, zopus, Penicil-Pteris, Equisetth other forms

is an ordinary

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

## Zoology.

Ordinary Third Year.

1. ELEMENTARY ZOOLOGY.—This course is designed to make the student thoroughly acquainted with the main types of structure met with in the animal kingdom, and with the principles on which the modern science of Zoology is founded. It comprises a study both theoretical and practical of the following types, viz.: Amoeba, Vorticella, Hydra, Craspedote Medusa, Alcyonium, Lumbricus, Nereis, Cambarus, Cyclops, Limulus, Periplaneta, Asterias, Echinus, Unio, Buccinum, Amphioxus, Mustelus, Rana and Lepus.

Six hours a week.

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

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

Six hours a week.

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

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

## Geology and Palæontology.

Professor :-- Frank D. Adams, M.A.Sc., Ph. D. Demonstrator :--

1. GENERAL GEOLOGY.—The lectures will embrace a general survey of the whole field of Geology, and will be introduced by a

Ordinary Fourth Year. 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.

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

Text-book — DAWSON, Hand-book of Geology. Books of Reference. — DANA, Manual of Geology; BONNEY, Story of our Planet. Three hours a week throughout the year, with additional excursions and demonstrations as above stated.

Honours. Fourth Year.

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

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

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

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

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

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

Fourth Year.

4. PRACTICAL AND APPLIED GEOLOGY.—A description of the methods employed in observing and recording geological facts, concluding with a general treatment of the nature and mode of occurrence of Ore Deposits.

One lecture and one demonstration a week during first term. *Text-book.*\_\_GEIKIE, Outlines of Field Geology; KEMP, Ore Deposits of the United States. PHILLIPS and LOUIS, A. Treatise on Ore Deposits.

Fourth Year. 5. CANADIAN GEOLOGY.—A general description of the Geology and Mineral Resources of the Dominion. One lecture a week during the second term. undergradu the Provin Lecture

T

B

of

6. GEO

G

be

cc

G

pr

0

foi

Su

Instruc

Certifica

Principa

Lectures

Instructio

at the begi

Observate

factory ex

instrumen

Studen

admissio

n will be deology, includearth during

collections in naps, sections very Saturday Il be replaced

ooks of Referof our Planet. tional excur-

yed in Petrod description

ne afternoon d to special ory. iche Physio-

y of Course rtant groups

one demonter Redpath

Manual of y.

the methods ts, concludid mode of

y; KEMP, LOUIS, A.

eology and

Text-book.—DAWSON, Hand-book of Geology. Books of Reference.—The Reports of the Geological Survey of Canada.

31

6. GEOLOGICAL COLLOQUIUM.—A discussion each week of some Geological topic, references to the literature of which have been given by the Professor in the week preceding. The course is intended to give students some acquaintance with Geological literature, as well as a wider knowledge of the great principles which underlie the Science.

One hour a week in second term.

Additional private reading will also be required of Candidates for Honours.

Students taking any of these courses are entitled to tickets of admission to the Museum of the Natural History Society of Montreal.

## Meteorology.

Superintendent of Observatory :-- C. H. McLeod, Ma.E.

Instruction in Meteorological Observations will be given in the Observatory at hours to suit the convenience of the senior students. Certificates will be granted to those students who pass a satisfactory examination on the construction and use of Meteorological instruments and on the general facts of Meteorolgy.

## Pedagogy.

Principal of the Normal School:-S. P. Robins, M.A., LL.D.

Lectures on this subject will be given in the Normal School to undergraduates of the Third and Fourth Years who wish to obtain the Provincial Academy Diploma.

Lecture hours to be arranged.

## Elocution.

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

Instruction is given in this subject at hours that may be settled at the beginning of the session.

Fourth Year.

7.

## Physical Culture

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

## LECTURES IN THE UNDERGRADUATE COURSE IN THE FACULTY OF ARTS.

#### SESSION 1898-99.

VEARS	Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
	9	Mathematics.	Mathematics.	Mathematics.	Greek.	Mathematics.
	10	Latin.	Greek.	Latin.	French.	Greek.
YEAI	11	French.	German.	German.	German.	English.
FIRST YEAR.	12	Physics.	French.	English.	Latin.	Physics.
H	2	Greek.	English.	French.		Latin.
	3			a de Casteria		German.
1	9	French. German.	Logic.	French.	German. Hebrew.	French.
	10	Greek.	Hebrew.	Logic.	Logic.	†Mathematics
SECOND YEAR.	11	Mathematics.	Latin.	Botany. †Mathematics.	Latin,	Greek.
	12	Botany. †Mathematics.	Greek.	Latin.	Mod. History.	Mod. History
	2	Math. Phys.				11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
	3		1.19.12 ° C	f-contained		
	4	The second second		nden of a	President and	in the second

Advanced practicable ar Section in the t For Car Honour C hours for whit CLASSICS ENGLISH FRENCH : GERMAN : SEMITIC I HISTORY : MENTAL A week, MATHEMA FOURTH YEAR, GEOLOGY : (Second Term BIOLOGY : The CHEM The Lectures of PRACTICAL 5-30 p.m.; FOU The BOTAN General Morphho GEOLOGY : open every day THE ZOOL

YEARS H

THIRD YEAR.

10

11

12

2

3

4

FOURTH YEAR.

open every day THE ZOOLG 5 p.m. Practic Wednesday, 2 Fourth Year wi N.B.- The tie, B.A., M.D. m, at hours to The Wick-1. r. R. J. Wickraduating Class nasium for two e medal to the

## OURSE IN

A¥.	FRIDAY.
•	Mathematics.
1.	Greek.
m.	English.
۱.	Physics.
	Latin.
	German.
un. w.	French.
c.	†Mathematics.
4	Greek.
sto	ory. Mod. History
-	
-	
-	

YBARS	Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
	9	English.	Greek Phys. Hebrew			German.
	10	Chaldee.	French.	Math. Physics. Chaldee.	French. Chemistry.	Rhetoric.
AB.	11	Metaphysics.	Zoology.	Metaphysics.	Zoology.	Math.Physics
THIRD YEAR.	12	Latin.	Exp. Physics.	Greek.	Exp. Physics, Hebrew.	Latiu.
THIE	2	Pract. Chem.	Botany.	Pract. Chem. Pract Zool.		Botany.
	3		German ?	Pract Zool.		
	4					†History.
FOURTH YEAR.	9	Exp. Physics.	Astronomy (a)	Geology. Syriac.	Exp. Physics.	Latin. German.
	10	Geology. Syriac.	French. Latin.	Latin.	English Lit.	Geology.
	11	Greek.	Moral Phil.	Greek.	Moral Phil.	French.
	12	Moral Phil.	Organic Chem	Miner, Demons.	Hebrew. Astronomy.(a	
	2	Pract. Chem. Zoology.	Botany.	Pract. Chem. Zoology.	Pract. Chem.	Botany.
	3		German?			1.11
	4		1			

#### TIME TABLE. - Continued.

33

Advanced Sections will be formed in all subjects in the first two years, so far as practicable and in these Honours may be awarded. In Mathematics there is an Advanced Section in the First Year, 2 hours a week. † For Candidates for Honours. (a) During First Term. Honour Courses (Third and Fourth Years) will be given in the following subjects, the precise hours for which will be arranged to suit the convenience of the classes :--CLASSICS: Third and Fourth Years, 6 hours a week. ENGLISH: Third Year, 6 hours a week; Fourth Year, 2 hours a week. FRENCH: Third Year, 6 hours a week; Fourth Year, 2 hours a week. GERMAN; Third Year, 2 hours a week; Fourth Year, 2 hours a week. SEMITIC LANGUAGES: Third Year, 2 hours a week; Fourth Year, 2 hours a week. MENTAL AND MORAL PHILOSOPHY: Third Year, 2 hours a week; Fourth Year, 2 hours a week; a week.

a week

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

BIOLOGY : 4 hours a week and 4 periods of Fractical Work. The CHEMICAL LABORATORIES are open every day (except Saturday) from 9 a.m. to 5 p.m. The Lectures on Chemistry and Laboratory classes are all open to Arts Students. PRACTICAL PHYSICS : Third Year, Monday, ro a.m. to 1 p.m., or Friday, 2.30 p.m. to 5.30 p.m.; Fourth Year, Wednesday, 2.30 p.m. to 5.30 p.m. The BOTANICAL LABORATORIES are open daily from 9 a.m. to 5 p.m. Saturday Classes in General Morphology (and Year), 11 a.m. to 1 p.m. GEOLOGY : Demonstrations and Excursions on Saturday. The Petrographical Laboratory is open every day throughout the Second Term. THE ZOOLOGICAL LABORATORY is open daily from 9 a.m. to 1 p.m. and from 2 p.m. to 5 p.m. Practical Work under the supervision of the Professor and Demonstrator, Monday and Wednesday, 2 to 4 p.m., and Saturday, 9 to 12 a.m. The time for Practical Work in the Fourth Year will be arranged. N.B.- The hours in this table are subject to alteration during the session.

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

C

## Appendix.

A revision of the curriculum is in progress.

In the Third and Fourth Years the various subjects of study will be arranged in groups, as under, and students will be permitted to select not more than six, under certain conditions, to be aiterwards specified in detail.\*

- Language and Literature.--English, Latin, Greek, Sanskrit, French, German, Italian, Spanish, Hebrew, Chaldee and Syriac.
- Philosophy.-Logic and Metaphysics, Moral Philosophy, Political Science, Economics, Education, History of Philosophy.
- Science.—Mathematics, Physics, Astronomy, Chemistry, Zoology, Botany, Geology, Physiology, Human Anatomy.
- History and Law.—History, Art and Archaeology, Constitutional Law and History, Roman Law, Public Law, History of Philosophy, History of Political Science.

**Honour Courses**, which shall not commence before the Third Year, are or will be established in the following subjects:-

- Classics (i.e., Latin and Greek, with optional subjects, such as Comparative Philology, Ancient Philosophy and Classical Archaeology).
- 2. English Language and Literature.
- 3. Modern Languages and Literature.
- 4. Semitic Languages and Literature.
- 5. History.
- 6. Mental Philosophy.
- 7. Mathematics; Physics; Chemistry (as may be arranged).
- 8. Biology: (a) Botany. (b) Zoology.
- 9. Geology (including Mineralogy and Palacontology).

\*The subjects printed in italics are those for which no instruction is as yet provided by the University. The va bound vo The b

various c siderable vours to

There a department before his TION, wh for the s collection from 1601

Abunda been gath library of some year library is

The Me cine, is th most com

About a scribed for these, the Proceeding being exter A new

time in har In the a noble build affords am room bein room is op

Although University, upon certai Library Co library as t safety of the

leading En

## 111. UNIVERSITY BUILDINGS, Etc.

## The University Library.

The various libraries of the University now contain about 67,000 bound volumes, besides many valuable pamphlets.

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

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

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

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

About 175 current periodicals, literary and scientific, are subscribed for through the various departments of the University. Besides these, the library regularly receives many Secials, Transactions and Proceedings of Societies. The list of both periodicals and serials is being extended yearly.

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

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

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

ects of study will l be permitted to to be afterwards

Greek, Sanskrit, haldee and Syriac.

losophy, Political hilosophy.

emistry, Zoology, my.

gy, Constitutional History of Philo-

e the Third Year,

subjects, such as 1y and Classical

rranged).

logy).

ch no instruction

## EXTRACT FROM THE LIBRARY REGULATIONS.

I. During the College Session the Library is open daily (except Sundays and general public holidays), from 9 a.m. till 5 p.m.; and the Reading Room from 9 a.m. till 6 p.m., and also from 8 till 10 p.m. On Saturdays, both Library and Reading Rooms close at 5 p.m. During vacations, both Library and Reading Rooms close at 5 p.m., and on Saturdays at 1 p.m.

2. Students in the Faculty of Arts, of Law, or of Applied Science may borrow books on depositing the sum of \$5 with the Bursar, which deposit, after the deduction of any fines due, will be repaid at the end of the Session on the certificate of the Librarian that the books have been returned uninjured.

P. X

3. Students in the Faculties of Medicine, or Comparative Medicine, who have paid the Library fee to the Bursar, may read in the Library, and on depositing the sum of \$5 with the Bursar, may borrow books on the same conditions as Students in Arts. They are required to present their Matriculation Tickets to the Bursar and to the Librarian.

4. Graduates in any of the Faculties, on making a deposit of \$5, are entitled to the use of the Library, subject to the same rules and conditions as Students, but they are not required to pay the annual Library fee.

5. Books may be taken from the Library only after they have been charged at the Delivery Desk; borrowers who cannot attend personally must sign and date an order, giving the titles of the books desired.

6. Books in the Reference Library must not be taken from the Reading Room; and, after they have been used, they must be returned promptly by readers to their proper places upon the shelves.

7. Before leaving the Library, readers must return the books they have obtained, to the attendant at the Delivery Desk.

8. All persons using books remain responsible for them, so long as they are charged to them, and borrowers returning books, must see that their receipt for them is properly cancelled. Damage to, or loss of books shall be made good to the satisfaction of the Librarian and of the Library Committee. Writing or making any mark upon any book belonging to the Library is unconditionally forbidden. Any person found guilty of wilfully damaging any book in any wa from the determine

9. Shou its return and be re the book r be sent for IO. Befo shall return all books

II. Silen

This buil name it bea of the cam to the colle work-room: The gener I. The Be rium, consis and collection 2. On the are cases ci large slabs c 3. This ide of which the collection successive ge of zoological

4. At the minerals and systematic sta and large cas 5. In the u zoological coregular series, in upright ca

to see the ge

particular gr

#### ULATIONS.

pen daily (except till 5 p.m.; and lso from 8 till 10 Rooms close at 5 g Rooms close at

f Applied Science with the Bursar, , will be repaid at Librarian that the

omparative Medi-, may read in the ursar, may borrow ts. They are rehe Bursar and to

g a deposit of \$5, he same rules and to pay the annual

er they have been not attend persontles of the books

e taken from the they must be reupon the shelves.

in the books they sk.

or them, so long returning books, ncelled. Damage satisfaction of the g or making any nconditionally fornaging any book 36 excluded from the Library

in any way shall be excluded from the Library, and shall be debarred from the use thereof for such time as the Library Committee may determine.

9. Should any borrower fail to return a book upon the date when its return is due, he may be notified by postal card of his default, and be requested to return the book. If the loan is not renewed, or the book returned, after a further delay of at least three days, it may be sent for by special messenger, at the borrower's expense.

10. Before the close of the session, Students in their final year shall return uniniured, or replace to the satisfaction of the Librarian, all books which they have borrowed.

II. Silence must be strictly observed in the Library.

## The Peter Redpath Museum.

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

The general arrangement of the collections is as follows:-

I. The Botanical Room on the ground floor contains the Herbarium, consisting of 30,000 specimens of Canadian and exotic plants, and collections illustrating structural and economic botany.

2. On the first floor is a room over the entrance hall, in which are cases containing archaeological and ethnological objects, with arge slabs of fossil foot-prints on the walls.

3. This room opens into the great Museum Hall, on either side of which are alcoves with upright and table cases containing the collections in Palaeontology, arranged primarily to illustrate the successive geological systems, and subordinately to this, in the order of zoological and botanical classification, so as to enable the student to see the general order of life in successive periods, and to trace any particular group through its geological history.

4. At the extreme end of the Hall are placed the collections of minerals and rocks, arranged in such manner as to facilitate their systematic study. In the centre of the Hall are economic collections and large casts and models.

5. In the upper story or gallery of the great Hall are placed the zoological collections—the invertebrate animals in table cases in regular series, beginning with the lower forms, the vertebrate animals in upright cases, in similar order. The PHILIP CARPENTER COLLEC- TION of shells is especially noteworthy for its arrangement and completeness.

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

## The Macdonald Physics Building.

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

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

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

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

Resistance Boxes.—The collection of resistance boxes includes almost all the best types. There is a Thomson-Varley slide-box by Nalder, the othe 100,000 P. O. b a compe 0 to 50 extremel cannot b been acc

For th is a Kel improver pleted un Curren

can also dynamon the volta per cent. alternate cells wit large stea and for at the Be leading in

As an a electro-dy the Britis Maxwell, The coils it is propo of a Clar Insulation

a suitable ballistic, c these has wards of (

There a chief of w other tests smaller po As a star

B. A. pati Its capa parison wi

#### arrangement and

eum are given in ing to type specifuseum Assistant. in charge of the hools can be adr be learned from rsity.

## ling.

ive toreys, each and its apparatus ory nearly 60 feet her work by adrooms for optical e thesis work by esearch, provided

There are also a nematical Physics, The equipment paratus for illusstruments for use cent types of all be used in con-

he general nature

l resistance coils of Trade and the ,000 ohms to one es. These have e found to agree certificates, and temperature cocomparisons have ey-Foster Bridge. ge used at Cam-

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

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

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

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

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

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

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

Its capacity has not yet been determined absolutely. By comparison with our certificated mica standards, it was found to be nearly one two-hundredth of a microfarad, the value intended by the maker.

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

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

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

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

Considerable progress has also been made with the equipment for advanced work in Optics, Acoustics, and Heat, but little work has as yet been done by the students in these branches owing to the arrangement of the present course of study. The collection of apparatus is on a corresponding scale to the electrical equipment, and includes several fine and valuable instruments, such as a set of Ewing Seismographs on which records of two earthquakes have already been obtained; a Rieffler standard clock; a set of direct-reading electrical thermometers reading to .01 Fahr., which are now being used for determining soil temperatures; a six inch Rowland grating with mountings and accessories by Brashear; a complete set of spectrum and Crooke's tubes by Geissler; mechanical models and apparatus

## The

In Se building research large g time, the for spec Chemist be ment trolytic photogr The c entered students. for chen poses ha run from fire-proo

The B Arts buil The la modation appliance In con plants is Each s is require The l modation complete for accura

#### intended by the

been carefully and absorption.

lators under the a subject which the transmission in a transformer ficient power to

orizontal intenifferent parts of two other types rery satisfactory ocal and bifilar h the portable 1 which experi-The ried on. recautions taken I heating apparven have been es. It was also ery at the other etic disturbance ons devoted to

quality of iron These experiding, but some for which the

equipment for the work has as to the arrangeof apparatus is ;, and includes Ewing Seismoready been obiding electrical being used for l grating with et of spectrum and apparatus from the Engineering Laboratory and the Instrument Company at Cambridge.

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

## The Macdonald Chemistry and Mining Building.

In September next the Chemical work will be transferred to the new building, where admirable facilities will be provided for study and research in the various departments of Chemistry. In addition to three large general laboratories, accommodating nearly 200 students at a time, the building contains a number of smaller laboratories and rooms for special purposes, including research work in inorganic and organic Chemistry and in Mineralogy. Among the special laboratories may be mentioned those for organic chemistry, physical chemistry, electrolytic analysis, gas analysis, iron and steel analysis, water analysis, photography, determinative mineralogy, etc.

The chemical lecture theatre, extending through two floors, is entered at the ground level, and is arranged to seat about 250 students. On the second floor there is a library and also a museum for chemical products. As far as possible the rooms for allied purposes have been grouped together on the same floor, and a lift will run from the basement to the top storey. The building is practically fire-proof, and is lighted throughout by electricity.

## Botanical Laboratories.

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

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

In connection with this laboratory, a large collection of dried plants is maintained, from which material is drawn for practical work.

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

The laboratory for Histology at present affords accommodation for twenty-four students. Each table is provided with a complete outfit of instruments and reagents. Provision is also made for accurate micrometric work, and for the production of accurate drawings by means of the camera lucida and Leitz's drawing instrument. More special instruments, including polariscope, spectroscope and photographic apparatus, afford opportunities for detailed studies in these several directions.

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

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

## Botanic Garden.

The Botanic Garden occupies a commanding situation at the summit of the Cote des Neiges Hill, distant from the College about one and one-half miles, and comprises an area of about nine acres.

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

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

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

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

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

## Zoological Laboratory.

The Zoological Laboratory is situated in the uppermost floor of the Law Building (East Wing of McGill College).

Accommodation is provided for a class of 40 students.

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

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

Th tions Mini stude by S electr For vance priva

Me ning indep The baron mome one s batter one a rain-b The at a 1 atory. feet a Soil Labor from The scope

stridin

arrang

drawing instrube, spectroscope detailed studies

n the resources preparations. the Biological able for such course of the

ituation at the College about ut nine acres. houses having lude a camellia greenhouse, 20

what extensive s of vegetation

ovided in large of such of the this respect. the use of mater this purpose, on to all those

rge, every day,

ermost floor of

ts. pes, reasonable e provided by

s, in which the 1 in the living done on fresh real. 8

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

## Petrographical Laboratory.

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

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

## Observatory.

Latitude, N. 45° 30' 17". Longitude, 4 54<sup>m</sup> 18.67.

Height above sea level 187 ft.

Meteorological Observations are made every fourth hour, beginning at 3 h. 0 m. Eastern standard time; also at 8 h. 0m.; 20 h. 0m. independent series of bi-hourly temperature observations are also made. The principal instruments employed are two standard mercurial barometers; one Kew standard thermometer; two Pastorelli thermometers; one maximum thermometer; one minimum thermometer; one set of six self-recording thermometers, with controlling clock, battery, etc.; two anemometers; one wind vane (windmill pattern); one anemograph with battery, etc.; one sunshine recorder; one rain-band spectroscope and one rain gauge.

The Anemometer and Vane are on the summit of Mount Royal, at a point about three-quarters of a mile northwest of the Observatory. They are 57 feet above the surface of the ground and 810 feet above sea level.

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

The astronomical equipment consist of:——The Blackman Telescope ( $6\frac{1}{4}$  in.); a photoheliograph ( $4\frac{1}{2}$  in.); a  $3\frac{1}{4}$  in. transit with striding level, etc.; a prismatic (8 cm.) transit instrument also arranged as a zenith telescope, a 2 in. transit in the prime vertical; two collimating telescopes; one sidereal clock; one mean time clock; one sidereal chronometer; one mean time chronometer; one chronograph; batteries, telegraph lines, and sundry minor instruments.

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

The longitude of the Observatory was determined in 1892 by direct telegraphic connection with Greenwich, with exchange of observers and instruments. The position is believed to be the most accurately determined in America.

Tl 15th

St grad

Uı

Cand ates, tion. as fol (1) amina Note themse

approv and (b

(2)<sub>.</sub> and fo

The

Exami

Exce Year I an time clock; r; one chronoistrumentsly every clear pronto Observcity by means the fire-alarm

1892 by direct e of observers 10st accurately

# Part Second.

The next session of this Faculty will begin on September 15th, 1898, and will extend to April 29th, 1899.

## I. REGULATIONS FOR ENTRANCE.

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

## Undergraduates.

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

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

Note to Heads of Schools.—Candidates for entrance may present themselves in June at McGill College; or papers may be sent to schools at a distance, if the following condutons are complied with:—

(a) The names of Deputy Examiners must be submitted for approval, to the Secretary of the University, on or before May 1st; and (b) the application must be accompanied by a list of candidates.

(2) At the opening of the session, on September 15th, and following days, in McGill College alone.

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

Except in special cases, no candidate will be admitted to the First Year Entrance Examination unless he is at least sixteen years of

age, and produces a certificate to this effect, if deemed necessary.

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

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

June Candidates who, at the examinations for Associate in Arts, have Candidates passed in the subjects of the Entrance Examination are admitted as Undergraduates.

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

September Any candidate who fails in one and not more than one subject Candidates at the September Entrance Examination may pass an equivalent examination at Christmas, or at the following Sessional Examinations, in the precise part of the subject in which he failed. In this regulation, Classics, Mathematics, and English are each regarded as a single subject.

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

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

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

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

Normal School Candidates

Note.—As the examination is intended as a test of qualification for admission to the classes of the University, certificates of passing are granted to those only who subsently attend lectures, exc ept in special cases and for cause shown. Candidates who have passed the examination are not matriculated until they have paid all the prescribed fees for the session and complied with the other University regulations. (See the Directions given, p. 51.)

## *Or* Exhi who ta

Exa

centre

The

1. En

2. La

3. Ge

4. Gr

5. Ele

or

the

E

on

1

Englisl specifie

Gree

Latin Aeneid, In be position text), v

text), v At t works

be acc Classic

Math Fraction root, an rules, Fi Equatio Problen

ments, ]

the First Year Examination of

June and Sepements can be prevented from iss or domestic

e in Arts, have are admitted as

June examinon and present exempted from ners may have

an one subject an equivalent Examinations, In this regularegarded as a

o may present the Junior Ma-

n accepted by y, in so far as of the Faculty, ralent to, those

nd Class non-Examination. Its, see Normal

ualification for of passing are ept in special d the examinaprescribed fees ty regulations.

## First Year Entrance Examination.

Examinations begin on May 30th in McGill College and local centres; on September 15th in McGill College only.

The subjects of the Entrance Examination are :--

- 1. English (including History).
- 2. Latin or Greek.
- 3. Geometry, Arithmetic, Algebra.
- 4. Greek or Latin (if not already taken).
  - or two Modern Languages or one Modern Language with the Additional Mathematics of the First Year Exhibition Examination.
- 5. Elementary Natural or Physical Science, viz.:
  - one of the following: (a) Physiography; (b) Botany; (c) Chemistry; (d) Physics;
  - Or alternatively a Language not previously taken.

Exhibitions are offered for competition (see page 76), to candidates who take the prescribed examination in Greek, Latin, Mathematics, English, one Modern Language, together with an additional amount specified below.

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

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

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

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

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

English.—Writing from Dictation. Grammar.-A paper on English grammar, including Analysis. The candidate will be expected to show a good knowledge of Accidence, as treated in any grammar prepared for the higher forms of schools. A similar statement applies to grammatical Analysis, in which the nomenclature used by MASON will be preferred. West's Elements of English Grammar (Pitt Press series) is recommended as a text-book. Analysis must be presented in tabular form, as on pages 208-211 of West. English History .- Candidates will be required to give the chief details of leading events. While any text-book written for the upper forms of schools may be used in preparation for the examination, GARDINER's Outline of English History (Longmans) is recommended. Composition .- Candidates will write a short essay on a subject given at the time of the examination. Literature.- SHAKSPERE'S Richard II., ed. Deighton (Macmillan), and Scorr's Lady of the Lake, ed. Stuart (Macmillan).

[Note.—*Candidates* may take Arithmetic, and all the English subjects except Literature, at the June Examination of one year, and the remainder at the Entrance Examination of the following year.]

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

German.—The whole of JOYNES' German Reader (or equivalent amount) together with German accidence and translation into German as in the First Part of VANDERSMISSEN'S German Grammar (or equivalent amount.)

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

Physiography.—Requirements as under Physical Geography in Optional Course for A. A. Examinations.

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

Credit will be given for plant collections.

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

Chemistry.-Elementary Inorganic Chemistry, comprising the preparation and properties of the chief non-metallic elements and their bining by R

Ad to abc Euc Alg tion ; rithm: Trig angled

Gre or XI

Lati Cicero Bell. C A pa the eas Compo Cand the opt sight. Text-

Burnet' sition; Arnold' Compos

> Math Algebra Engli be requ

developi words. Gramma ris's Hi book of those se spere's 1 r.-A paper on late will be exs treated in any A similar statene nomenclature ents of English xt-book. Analy-208-211 of West. the chief details e upper forms of tion, GARDINER'S mended. Comsubject given at Richard ERE'S f the Lake, ed.

Il the English of one year, and llowing year.]

ranslation from h; Dictation or to write French cial credit will anguage.

(or equivalent on into German mmar (or equi-

opose to take inguages.

Geography in

hallow's Guide scription.

ame family for nentary Botany,

omprising the elements and their more important compounds, the laws of chemical action, combining weights, etc. (The ground is simply and effectively covered by Remsen's "Elements of Chemistry," pp. I to 160.)

Additional Mathematics.—The additional requirements referred to above in the Mathematical subjects for Exhibitions are as follows:— Euclid :—Bks. 4 and 6, with Defs. of Bk. V. and easy deductions.

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

Trigonometry :-- To the beginning of the solution of oblique angled triangles, as in Galbraith & Haughton, with deductions.

## Additional for Exhibitions.

Greek.-Homer, Iliad, Bk. IV. or VI.; Homer, Odyssey, Bk. VII. or XIII.

Latin.—Virgil, Aeneid, Bk. III. may be substituted for Book I.; Cicero, In Catilinam, Orat. I. and II.; or Horace, Odes I.; Caesar, Bell. Gall., Bks. II. and III. may be substituted for Bks. I. and II.

A paper on Greek and Latin Grammar. Translation at sight from the easier Greek and Latin authors. Easy Latin and Greek Prose Composition.

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

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

Mathematics.—Euclid, Bks. I., II., III., IV., with easy deductions; Algebra to end of Harmonical Progression (Colenso); Arithmetic.

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

French.—Grammar.— Syntax, in addition to the grammar of the Entrance Course. Easy translation from French into English, and English into French. Labiche, Le Voyage de M. Perrichon. J. Macé, Histoire d'une Bouchée de Pain. Oral examinations. Or, instead of French:

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

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

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

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

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

Trigonometry.—To the beginning of the solution of obliqueangled triangles, as in Galbraith & Haughton, with deductions.

3. English.—Henry Morley's First Sketch of English Literature, chaps. VII and VIII.

# The immed duate Comm to the Candid by the Exc Second produc

Mea

Medic first ye selves fo

Partia Student provide their ab No or at least effect if

Studen Universi equivalen Ist.—/ giving a 2nd.—/ 3rd.—/ These The Fa ination, i admitting

 $\mathbf{49}$ 

ition of Milton's an). Composition on some subject paper bearing on Attention should courses and reof the Political ate the character

grammar of the ito English, and . Perrichon. J. inations.

ersmissen, Acci-1); Joynes' Gerleath & Co.); (Heath & Co.).

rded unless an but in awardccessful candiowing subjects

ght (Latin and

), with Defs. of

tion and Varia-Votation; Loga-

ion of obliquedeductions.

glish Literature,

# Second Year.

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

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

# Medical Students.—Partial Students.—Students of other Universities.

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

Partial Students. — Candidates for admission as Partial Students may attend any class, without previous examination, provided they give the Professor satisfactory evidence of their ability to proceed with the work of the course.

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

giving a full statement of the courses of study.

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

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

# General Regulations.

51

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

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

Every student is required to sign the following

#### Declaration.

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

# Directions to Candidates for Matriculation or Admission.

Candidates are required:-

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

(b) To pass or to have passed the required examinations (p. 44). Candidates claiming exemption, according to the regulations above given, from examination in any subject on the ground of examinations previously passed, must present certificates of standing in the latter. Candidates must pay a fee of \$5 before admission to the entrance examination in September. (See Fees. p. 72)

(c) To procure tickets from the Registrar (p. 73), and to sign the declaration above given.

(d) To present their tickets to the Dean. (Fine, etc., for delay stated on p. 73).

(e) To provide themselves with the Academic dress (p. 72).

### II. REGULATIONS FOR DEGREES IN ARTS.

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

After passing the First Year Matriculation Examination, an Undergraduate, in order to obtain the Degree of B.A., is required to attend regularly the appointed courses of lectures for four years, and to pass the required Examinations in each year. A student cannot proceed with his course unless h If he it befo gradu: cordin

1.

N. 1 have na Arabic 4-31 under

With tions wi Honour Studen the worl

tion of

granted

I

V VI VII IS X X XII

XII

XIV

XV

R

the name of the of the Minister

enominations with beginning of each to the Secretary's

the statutes, rules, ge, to the best of

## culation or

beginning of the triculation or ad-

minations (p. 44). regulations above ound of examinaof standing in the admission to the 72)

73), and to sign

ne, etc., for delay

ess (p. 72).

IN ARTS.

A.

on Examination, egree of B.A., is l courses of leced Examinations h his course un-

nà

52

less he has passed each Examination in its assigned order. If he fails at any one of these Examinations, he must pass it before being allowed to proceed with his course. Undergraduates are arranged in Years, from First to Fourth, according to their academic standing.

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

N. B. The Roman numerals used in the following conspectus have no reference to any other parts of the Calendar—whereas the Arabic numerals refer to the numbering of the courses on pp. 4-31 for example, Greek, 2. refers to the second course given under the head of Classical Literature and History, p. 4.

## First Year.

I. GREEK, 1, or LATIN 1.

- II. ENGLISH I WITH HISTORY I.
- III. MATHEMATICS, I.
  - IV. LATIN I, OR GREEK I, OR FRENCH I, OR GERMAN I.
  - V. PHYSICS, I.

With a view to the encouragement of higher work, advanced sections will be formed in all subjects as far as practicable, and in these Honours may be awarded.

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

## Second Year.

- VI. GREEK, 2.
- VII. LATIN, 2.
- VIII. FRENCH, 2.
  - IX. GERMAN, 2. (Optional-instead of VIII.)
  - X. HEBREW, 2. (Optional-instead of VIII.)
- XI. HISTORY, 2.
- XII. MENTAL AND MORAL PHILOSOPHY, I
- XIII. MATHEMATICS, 2.
  - XIV. MATHEMATICAL PHYSICS, 2. (Medical students may substitute the second half of the Chemistry course of the Faculty for XII and XIV.)
  - XV. BOTANY, I. (Medical students may substitute the Botany course of their Faculty.)

# Third Year.

XVI. GREEK, 3.

XVII. LATIN, 3. (Optional—instead of XVI.) XVIII. MATHEMATICAL PHYSICS, 3.

(In addition to the above, the student will take one subject from Div. (a), a second from Div. (b), and a third from either.)

#### (Div. a.)

XIX. GREEK, 3. (If XVII has been taken.)

XX. LATIN, 3. (If XVI has been taken.)

XXI. ENGLISH AND RHETORIC, 3.

XXII. MENTAL PHILOSOPHY, 2.

XXIII. FRENCH, 3. (If the subject has been taken in 1st. or 2rd. Year.) XXIV. GERMAN, 3. (If the subject has been taken in 1st. or 2nd. Year.) XXV. HEBREW, 3.

#### (Div. b).

XXVI. OPTICS, 4. AND DESCRIPTIVE ASTRONOMY, 3. (Open to students who have taken XVIII.)

XXVII. EXPERIMENTAL PHYSICS, 5. (Open to students who have taken XVIII.)

XXVIII. LABORATORY COURSE IN PHYSICS, 7.

XXIX. BOTANY, 2a.

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

## Fourth Year.

XXXI. GREEK, 4.

XXXII. LATIN, (Optional-instead of XXXI.)

XXXIII. MORAL PHILOSOPHY, 3.

XXXIV. MATHEMATICAL PHYSICS, 3. (Optional instead of XLI.)

(In addition to the above, the student will take one subject from Div. (1) a second from Div. (b), and a third from either.)

#### Div. (a).

XXXV. GREEK, 4. (If XXXII has been taken.) XXXVI. LATIN, 4. (If XXXI has been taken.) XXXVII. ENGLISH LITERATURE, 4. XXXVIII. FRENCH, 4. (If XXIII has been taken.) XXXIX. GREMAN 4. (If XXIV has been taken.)

XXXIX. GERMAN, 4. (If XXIV has been taken.) XL. HEBREW, 4. X X X X XI N.B. XLII, XVIII

For 4. A C of the must n three-f

Second

Ever and sig "Eg bus stu operam

Third of two select or same sul in which the abov have been the prece Year, acc

The A the amo Division. (For a

### Div. (b.)

XLI. ASTRONOMY, 4, AND OPTICS, 4. (If XVIII has been taken.)

XLII. EXPERIMENTAL PHYSICS, 6. XLIII. LABORATORY COURSE IN PHYSICS, 8.

XLIV. BOTANY, 2b.

XLV. ZOOLOGY, 2.

XLVI. MINERALOGY AND GEOLOGY, I.

N.B.-Students claiming exemptions cannot count XLI and XLII, as subjects for the B.A. Examinations, unless they have taken XVIII.

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

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

## Declaration.

Every Candidate for the Degree of B.A. is required to make and sign the following declaration :

"Ego-polliceor sancteque recipio me pro meis viribus studiosum fore communis hujus Universitatis boni, et operam daturum ut ejus decus et dignitatem promoveam."

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

Courses.

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

The Additional Course is intended to be more than equivalent, in the amount of work involved, to any of the other subjects in the Division.

(For details of Additional Courses provided, see pp. 56-57).

iect from Div. (a),

ist. or 2rd. Year.) st. or 2nd. Year.)

(Open to students

nts who have taken

atomy and Practical only, be substituted

d of XLL.) yect from Div. (1) French and German. Hebrew. Profes-

sional Students.

Partial

Students.

Honour

Exemptions. Students may take Hebrew instead of French or German.

For arrangements enabling Students in Medicine or Applied Science to take the course in Arts also, and obtain B. A., with B. A. Sc. or M.D., in six years, see p.64 and 65.

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

# 2. Honour Courses.

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

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

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

### Candidates for Honours in the Second Year.

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

## Candidates for Honours in the Third Year.

A Candidate for Honours in the Third Year, in order to obtain exemptions, must in the Examinations of the Second Year have taken First or Second Rawk Honours, if Honours be offered in the subjects, or if not, First Class at the Ordinary Sessional Examinations in must sta ing subj be entit amination that in Honour be required Underge

A Stu Third Y be required the ordination however Honours of the S the whole *Note*.

(N.B.to the co

THIR

FOUR

THIR: THIR: FOUR FOUR

THIRI FOUR

#### German.

ine or Applied 3. A., with B. A.

al Students, and Courses of Lecoted from further l in consequence ies and of those

will be awardurse establishcreditably the roper to their

ur lectures unless bject at the prehas satisfied the while attending or. In case his the Faculty to

Years are open r of their fitness lents will not be

#### Year.

ho has obtained rom the lectures or Botany. He of the Session r course.

# Year.

, in order to he Second Year urs be offered in essional Examinations in the subject in which he proposes to compete for Honours; must stand higher than Third Class in not less than half of the remaining subjects, and have no failure in any subject. Such Candidate shall be entitled in the Third Year to exemption from lectures and examinations in any one of the subjects of the Year (see p 53), except that in which he is a Candidate for Honours. A Candidate for Honours in the Third Year who has failed to obtain Honours shall be required to take the same examinations for B.A. as the ordinary Undergraduate.

## Candidates for B. A. Honours.

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

Note.-For subjects of Ordinary Course see pp. 52-53.

# Honour and Additional Courses.

(N.B.—The numbers which stand after the Academic years refer to the corresponding numbers of the Courses given on pp.4-31.)

# 1. Classical Literature and History.

THIRD YEAR HONOURS. Greek, 5. Latin, 5. FOURTH YEAR HONOURS. Greek, 6. Latin, 6.

2. English Language and Literature.

THIRD YEAR HONOURS, 6, 8, 10, 12, 14. THIRD YEAR ADDITIONAL, 6 or 10. FOURTH YEAR HONOURS. 5, 7, 9, 11, 13, 15. FOURTH YEAR ADDITIONAL, 7 or 11 or 15.

#### 3. French.

THIRD YEAR HONOURS, 5. FOURTH YEAR HONOURS, 5.

## 4. German.

57

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

## 5. Semitic Languages.

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

# 6. History.

THIRD AND FOURTH YEAR HONOURS, 3.

# 7. Mental and Moral Philosophy.

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

#### 8. Mathematics and Physics.

FIRST YEAR, ADVANCED SECTION, 2. SECOND YEAR HONOURS, 6. THIRD YEAR HONOURS, 7, 8. FOURTH YEAR HONOURS, 9, 10, 11.

#### 9 Mineralogy.

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

FCURTH YEAR HONOURS,

# • 10. Chemistry.

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

#### 11. Biology.

 $\begin{cases} Botany, 2b. \end{cases}$ 

Zoology, 2.

## 12. Geology.

# FOURTH YEAR HONOURS. 2, 3, 4, 5, 6.

NOTE.—By an order of the Lieutenant-Governor of Ontario in Council, Honours in this University confer the same privileges in Ontario as Hon ours in the Universities of that Province as regards certificates of eligibility for the duties of Public School Inspectors, and as regards exemption from the non-professional Examination of Teachers for first-class Certificates for Grades "A. and B."

2. thesis ing ru  $(\mathbf{a})$ Facult (b) lished (C) versity. Faculty (d) fixed a than ty gree. N.B.Theses j

1.

three 1

Second the Orc quired in Scien (a) ' divided Group (b) ' into thr Group MECHANI

3. A

# 3. Regulations for the Degree of MA.

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

## Thesis.

2. He is required to prepare and submit to the Faculty a thesis on some literary or scientific subject, under the following rules :---

(a) The subject of the thesis must be submitted to the Faculty before the thesis is presented.

(b) A paper read previously to any association, or published in any way, cannot be accepted as a thesis.

(c) The thesis submitted becomes the property of the University, and cannot be published without the consent of the Faculty of Arts.

(d) The thesis must be submitted before some date to be fixed annually by the Faculty, which date must not be less than two months before the Candidate proceeds to the Degree.

N.B.—The last day in the session of 1898-99 for sending in Theses for M.A., will be Jan. 31st, 1899.

#### Examinations.

3. All Candidates, except those who have taken First or Second Rank B.A. Honours, or have passed First Class in the Ordinary Examinations for the Degree of B.A., are required to pass an examination also, either in Literature or in Science, as each Candidate may select.

(a) The subjects of the Examination in *Literature* are divided into two groups as follows:—

Group A .- LATIN, GREEK, HEBREW.

Group B .- FRENCH, GERMAN, ENGLISH.

(b) The subjects of the Examination in *Science* are divided into three groups :--

Group A.—PURE MATHEMATICS (advanced or Ordinary), MECHANICS (including Hydrostatics), ASTRONOMY, OPTICS.

Ontario in Council, n Ontario as Hon ificates of eligibiliregards exemption r first-class Certifi-

17.

zi.

Group B. --GEOLOGY and MINERALOGY, BOTANY, ZOOLOGY, CHEMISTRY.

Group C-MENTAL PHILOSOPHY, MORAL PHILOSOPHY, LOGIC, HISTORY OF PHILOSOPHY.

(c) Every candidate in Literature is required to select for Examination two subjects out of one group in the *Literature* section, and one out of the other group in the same section. Every Candidate in Science is required to select two out of the three groups in the *Science* section; and in one of the groups so chosen to select for Examination two subjects, and in the other group one subject.

(d) One of the subjects selected as above will be considered the principal subject (being so denoted by the candidate at the time of application), and the other two as subordinate subjects.

(e) The whole examination may be taken in one year, or distributed over two or three years, provided the examination in any one subject be not divided.

For further details of the examination, application must be made to the Faculty before the above date. For fees see p. (In case of failure, the candidate may present himself in a subsequent year without further payment of fees.) The examination will be held in April in McGill College only.

NOTE.—Candidates who obtained the degree of B.A. before 1884, may proceed to the degree of M.A. under the regulations in force previous to 1884.

#### Lectures to Bachelors of Arts.

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

This of Art short of the range The 1. years' in Co of Ar degree ary of by the erary of tho the F: N.Bwritten 2. require list of Science to subr unless see p.

1. ]

mas an

classes

the Firs Examin

Chris

59

OTANY, ZOOLOGY,

LOSOPHY, LOGIC,

equired to select oup in the *Liter*oup in the same quired to select section; and in 'xamination two t.

ve will be conted by the canher two as sub-

in one year, or d the examina-

pplication must date. For fees y present himyment of fees.) McGill College

of B.A. before r the regulations

o are candidates onding to these A. examination. rench, German, mistry, Botany,

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

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

The following are the regulations :--

1. Candidates must be Masters of Arts of at least twelve years' standing. Every candidate for the Degree of LL.D. in Course is required to prepare and submit to the Faculty of Arts, not less than three months before proceeding to the degree, twenty-five printed copies of a thesis on some Literary or Scientific subject which has been *previously approved* by the Faculty. The thesis must exhibit such a degree of literary or scientific merit, and give evidence of such originality of thought or extent of research as shall, in the opinion of the Faculty, justify recommendation for the degree.

N.B.—The subject should be submitted before the Thesis is written.

2. Every Candidate for the Degree of LL.D. in Course is required to submit to the Faculty of Arts, with his thesis, a list of books treating of some one branch of Literature or of Science, satisfactory to the Faculty, in which he is prepared to submit to examination, and in which he shall be examined, unless otherwise ordered by vote of the Faculty. For fees, see p. 74.

# 5. Examinations.

(A) College Examinations.

## For Students of McGill College only.

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

Christmas Examinations will be held in all the subjects of the First and Second Years. There shall be no Supplemental Examination in case of failure. Candidates who fail in courses of the First and Second Years, terminating at Christmas, will be required to pass at the Sessional Examinations on an extra paper in the subject in which they have failed.

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

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

2. Undergraduates who fail in one subject at the Sessional Examinations of the First or of the Second Year are required to pass a Supplemental Examination therein in the following September. Should they fail in this Examination, they must in the following Session attend the Lectures and pass the Examination in the same subject, in addition to the regular course, or pass the Examination only, without attending Lectures, at the discretion of the Faculty.

**3** Failure in two or more subjects at the Sessional Examinations of the First or of the Second Year, or in one subject at the Third Year Sessional Examinations, involves the loss of the Session. The Faculty may permit the student to recover his standing by passing a Supplemental Examination at the beginning of the following Session.

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

5. A list of those to whom the Faculty may grant Supplemental Examinations in the following September will be published after the Sessional examination. The time for the Supplemental Examination will be fixed by the Faculty; the examination will not be granted at any other time, except by special permission of the Faculty, and on payment of a fee of \$5.

#### (B) University Examinations.

For Students of McGill College and of Colleges affiliated in Arts.

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

There are three University Examinations: The Matriculation at entrance; the Intermediate, at the end of the Second Year; and the Final, at the end of the Fourth Year. stated 2. I Classics with on to take jects of

1.

Greek.-

A paper :

Latin.-C

A paper u

Mathemat

nating at Christal Examinations ey have failed. r Fourth Years, 3.

sional Examinatakes its place. t at the Sessionnd Year are ret therein in the is Examination, he Lectures and addition to the nly, without atculty.

e Sessional Exlear, or in one ations, involves mit the student ental Examinan.

ional Examinaly with the En-

y grant Suppleber will be pube time for the ne Faculty; the time, except by yment of a fee

filiated in Arts.

he Matriculation cond Year; and 62

1. The subjects of the Matriculation Examination are stated on pp. 46-48.

2. In the Intermediate Examination, the subjects are Classics, Pure Mathematics, Logic, and Modern History with one Modern Language, or Botany. Students are allowed to take Hebrew instead of a Modern Language. The subjects of the examination in 1899 are as follows :—

## Intermediate.

Greek.—THUCYDIDES The Siege of Plataea (Sing, Rivingtons); and The Retreat from Syracuse (Rouse, Rivingtons); SOPHOLLES, Ajax. Prose Composition and Translation at sight of Greek (easy narrative) into English. General questions will also be set,—in History, on the Period of Athenian Supremacy Cox's Athenian Empire, (Longmans' Epochs of Ancient History), with Abbott's Pericles (Putnams), and in Literature on the outlines as contained in Jebb's Primer of Greek Literature (pp. I to 100), (Macmillan).

A paper will also be set in the course of the Session on Luciani Vera Historia (Jerram, Clarendon Press.)

(SUMMER READINGS, see p. 5.)

Latin.—Cicero, The Fourth Verrine Action (Hall, Macmillan); Quintilian X, Sections 37-131 (Peterson, Clarendon Press, smaller edition); Horace (Wickham's Selected Odes, Clarendon Press); Latin Prose Composition and Translation at sight of Latin into English; History, from the Tribunate of Gaius Gracchus to the Battle of Actium (Shuckburgh's History of Rome, Macmillan); Literature: Wilkins Primer (Macmillan).

A paper will also be set in the course of the Session on Livy Book xxi (SUMMER READINGS, see p. 7.)

Mathematics.—Arithmetic.

Euclid, Books I., II., III., IV., VI., and defs. of Book V. Algebra, to Quadratic Equations inclusive (as in Colenso).

Trigonometry, including use of Logarithms.

Logic.-Jevons' Elementary Lessons in Logic.

English(For affiliated colleges.)-SPALDING's History of English
Literature; Lodge's History of Modern Europe, 1789-
1878. Essay on a subject to be given at the time of the
Examination.
European History.—(For McGill College Students) as on p. 18.
With one of the following:-
Botany(For McGill College Students.) See p. 28.
French-V. Hugo, Notre Dame de Paris ; Th. GAUTHIER, Le

- Roman de la Momie; MME DE STAEL, Corinne. Translations into French :--Rasselas; Grammatical questions.
- German.—The JOYNES-MEISSNER German Grammar; SCHILLER, Die Jungfrau von Orleans; Storm, Immensee (Heath & Co.); Heine, Die Harzreise; Translation at Sight; Dictation; Colloquial exercises.
- Hebrew.—Genesis, chap. IV. to VIII; Exodus, XX.; Judges, V. Exercises: Hebrew into English, and English into Hebrew. Syntax. Reading of the MASORETIC notes, the Septuagint version and the Vulgate.

3. For the Final or B.A. Ordinary Examination the subjects appointed are the obligatory subjects of the Third and Fourth Years, viz., Latin or Greek; Mathematical Physics (Mechanics and Hydrostatics, or Astronomy and Optics); Moral Philosophy: and those three subjects which the Candidate has selected in the Third and Fourth Years. (See p. 53.)

### Final.

Greek.—PLATO, Republic I and X; AESCHYLUS, Eumenides; Composition and Translation at Sight; paper on the Constitutional History of Athens, Greek Literature and Antiquities. A Paper will also be set in the course of the Session on Merriam's "The Phaeacians of Homer" (Harpers),-SUMMER READINGS, see p. 5.

Latin.—LIVY, Book V (in part); JUVENAL, Selected Satires; TIBULLUS Selections. Composition and Translation at Sight. History of the Roman Empire to the reign of Domitian. A Paper will also be set in the course of the Session on Tacitus, Annals IV,—SUMMER READINGS, set p. 8.

Gener matricul; or in ar from an; Fourth ? To be notice, a Faculty of Students, attendance for which

Math

Menta Natur

Exper

Histor

Englis

French

Germa

Hebrey

N. B.-

6.

63

History of English odern Europe, 1789en at the time of the

dents) as on p. 18.

p. 28.

Th. GAUTHIER, Le E STAEL, Corinne. ; Grammatical ques-

mar : SCHILLER, Die mmensee (Heath & anslation at Sight;

odus, XX.; Judges, sh. and English into e MASORETIC notes, gate.

mination the subof the Third and hematical Physics omy and Optics); ts which the Canurth Years. (See

Eumenides; Compoon the Constitutional and Antiquities. A e of the Session on omer" (Harpers),-

Selected Satires; and Translation at pire to the reign of in the course of the MMER READINGS, see Mathematical Physics.-Mechanics and Hydrostatics, as LONEY'S Mechanics and Hydrostatics; or Optics and

Astronomy, as in GALBRAITH and HAUGHTON

in

or

Mental and Moral Philosophy.-MURRAY'S Introduction to Ethics.

BRINKLEY.

- Natural Science.-(a) Mineralogy and Geology, or (b) Botany. Practical Geology and Palaeontology (Additional); or Practical Chemistry (Additional).
- Experimental Physics.-Electricity and Magnetism. (See courses of Lectures, p. 25.)
- History .-- (For affiliated Colleges.) MYERS Mediaeval and Modern History; Bryce, Holy Roman Empire (omit Chaps. 6, 8, 9, 13, and Supplementary Chapter).

English Literature --- (For McGill College.) The Course on English Literature for the Fourth Year, p. 11.

French.—The Course on French for the Fourth Year, p. 14.

German.-The Course on German for the Fourth Year, p. 16.

Hebrew.-Job, I., II., III., IV., XIV., XIX., XXIX.; Ecclesiastes, I., II., III., XII.; PSALMS, LVI. to LXV.; GESENIUS, Grammar; HARPER, Elements of Syntax; Reading of the Masoretic notes, the Septuagint Version and the Vulgate. Translation at Sight.

N. B.-For Additional Courses on above subjects see pp. 56-57.

# 6. Exemptions for Students in Professional Faculties.

General Regulations .- Students of the Third and Fourth Years. matriculated in the Faculties of Law, or Medicine, or Applied Science. or in any affiliated Theological College, are entitled to exemption from any one of the Ordinary Subjects required in the Third and Fourth Years. (For rule concerning Special Certificates, see p. 67.)

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

Medicine.

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

In the First and Second Years in Arts, they may substitute certain equivalents for parts of the Ordinary Course.

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

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

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

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

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

Literate in Arts.—A certificate of "LITERATE IN ARTS" will be given along with the professional degree in Medicine or Applied Science, to those who have completed two years' study in the Faculty of Arts, and have pased the prescribed examinations.

# Students of the University attending affiliated Theological Colleges.

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

Applied Science. Tl of the to :--(1 and (2) be furni
3. Un Degree but they French
4. In

as stated \*Any Experim statics al

> 7. 1. Go

aminatic

First R: passed c of B.A., the Cor iners :--The He I The Priz The Ann S The Shal at The Loga to The Majc by If there fulfil the proceeds (

in the sub

announcen

65

e are allowed the

nay substitute cer-

ing the full course nd Histology with Anatomy, as two Ordinary Course. Year in Arts and h Year in Arts to rse (or one subject tudents are recomof the Arts Course Years.

ation in the Medf each year to the each session in the res and of passing ented. At the end it be presented to ty for the year has

o have passed the ing the course in applied Science for te the work of the so that they may he Fifth Year from le to the Dean of , etc., in Applied

the M.D. or B.A. Sc he B. A. degree, and

IN ARTS" will be dicine or Applied udy in the Faculty ons.

ted Theological

of the Faculty of

1

:. The Faculty will make formal reports to the governing body of the Theological College which any such student may attend, as to :--(I) their conduct and attendance on the classes of the Faculty; and (2) their standing in the several examinations; such reports to be furnished after the Examinations, if called for.

3. Undergraduates are allowed no exemptions in the course for the Degree of B.A. until they have passed the Intermediate Examination; but they may take Hebrew in the First or Second Years, instead of French or German.

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

\*Any student who, under any of the above rules, desires to take Experimental Physics is required to take Mechanics and Hydrostatics also, in the Third Year.

# 7. Medals, Prizes, Classing and Certificates.

1. Gold Medals will 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 the English Language, Literature and European History.
- The Logan Gold Medal for Geology, Mineralogy and Palaeontology.
- The Major Hiram Mills Gold Medal for a subject to be chosen by the Faculty from year to year.
- If there be no candidate for any Medal, or if none of the Candidates fulfil the required conditions, the Medal will be withheld, and the proceeds of its endowment for the year may be devoted to prizes in the subject for which the Medal was intended. For details, see announcements of the several subjects below.

2. Special Certificates will be given to those Candidates for B.A. who have been placed in the First Class at the ordinary B.A. Examination; have obtained three-fourths of the maximum marks in the aggregate of the studies proper to their year; are in the First Class in not less than half the subjects, and have no Third Class. At this examination, no Candidate who has taken exemptions (see p. 64), can be placed in the First Class unless he has obtained First Class in four of the departments in which he has been examined, and has no Third Class.

3. Certificates of High General Standing will be granted to those Undergraduates of the first two years who have obtained three-fourths of the maximum marks in the aggregate of the studies proper to their year, are in the First Class in not less than half the subjects, and have not more than one Third Class. <sup>4</sup>In the Third Year the conditions are the same as for the Special Certificate for B.A.

4. Prizes or Certificates will be given to those Undergraduates who have distinguished themselves in the studies of a particular class, and have attended all the other classes proper to their year.

5. His Excellency the Earl of Aberdeen has been pleased to offer annually during his term of office a Gold Medal for the study of Modern Languages and Literature, with European History, or for First Rank General Standing, as may be announced.

(a) The Regulations for the former are as follows :---

(1) The subjects for competition shall be French and German, together with a portion of the History prescribed for the Honour Course for the Shakspere Medal. Information concerning the History may be obtained from the Professor of History.

(2) The Course of Study shall extend over two years, viz., the Third and Fourth Years.

(3) The successful Candidate must be capable of speaking and writing both languages correctly.

(4) There both the Thin to deserving

(5) The geregards exemine the Facult
 (6) Student
 (6) provided they

in the above (7) Candida who have no Sessional Exa pass an exami in Modern La

(8) The sul Course in Mo

(b) The 1 First Rank (

 (1) The suc stitutions of ar nary B.A. Exa
 (2) He shall

> (a) CLASSIC OPTI two its A IMENT

(3) His answ the Faculty.

(4) The same Rank General Honours.

6. The Nei graduates and uates of any c in some Col govern the aw

67

nose Candidates uss at the ordinfourths of the adies proper to s than half the examination, no p. 64), can be ned First Class been examined,

will be granted s who have obn the aggregate e First Class in more than one ns are the same

o those Unders in the studies ne other classes

as been pleased a Gold Medal Literature, with al Standing, as

as follows :---

ich and German, for the Honour erning the History

o years, viz., the

of speaking and

(4) There shall be examinations in the subjects of the course in both the Third and Fourth Years, at which Honours may be awarded to deserving Candidates.

(5) The general conditions of competition and the privileges as regards exemptions shall be the same as for the other Gold Medals in the Faculty of Arts.

(6) Students from other Faculties shall be allowed to compete, provided they pass the examinations of the Third and Fourth Years in the above subjects.

(7) Candidates desiring to enter the Third Year of the Course, who have not obtained first-class standing at the Intermediate or Sessional Examinations of the Second Year in Arts, are required to pass an examination in the work of the first two years of the Course in Modern Languages, if called on to do so by the Professors.

(8) The subjects of Examination shall be those of the Honour Course in Modern Languages.

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

(1) The successful Candidate must take no exemptions or substitutions of any kind, whether Professional or Honour, in the Ordinary B.A. Examinations.

(2) He shall be examined in the following subjects :-

(a) CLASSICS (both languages); (b) MECHANICS, HYDROSTAT'C<sup>\*</sup>,
 OPTICS, ASTRONOMY; (c) MORAL PHILOSOPHY; and any
 two of the following subjects, or any one of them with
 its Additional Course; (d) GEOLOGY, etc.; (e) EXPER IMENTAL PHYSICS; (f) ENGLISH; (g) GERMAN.

(3) His answering must satisfy special conditions laid down by the Faculty.

(4) The same Candidate cannot obtain the Gold Medal for First Rank General Standing and also a Gold Medal for First Rank Honours.

6. The Neil Stewart Prize of \$18 is open to all Undergraduates and Graduates of this University, and also to Graduates of any other University, who are students of Theology in some Col ge affiliated to this University. The rules which govern the award of this prize are as follows :-- (1) The Candidate must pass, in the First Class, a thorough examination upon the following subjects: Hebrew Grammar; reading and translation at sight from the Pentateuch, and from such poetic portions of the Scriptures as may be determined.

(2) In case competitors should fail to attain the above standard, the prize will be withheld, and a prize of \$36 will be offered in the following year for the same.

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

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

This Prize founded by the late Rev. C. C. Stewart, M.A., and terminated by his death, was re-established by the liberality of the late Neil Stewart, Esq., of Vankleek Hill.

7. Early English Text Society's Prize.—This prize, the annual gift of the Early English Text Society, will be awarded for proficiency in (1) Anglo-Saxon, (2) Early English before Chaucer.

The subjects of Examination will be :--

(1) The Lectures of the Third and Fourth Years on Anglo-Saxon.

(2) Specimens of Early English, Clarendon Press Series, ed. Morris and Skeat, Part II., A. D. 1298-A. D. 1393. The Lay of Havelok the Dane (Early English Text Society, ed. Skeat).

8. New Shakspere Society's Prize.—This Prize, the aunual gift of the New Shakspere Society, open to Graduates and Undergraduates, will be awarded for a critical knowledge of the following plays of Shakspere :—

Hamlet; Macbeth; Othello; King Lear.

9. Charles G. Coster Memorial Prize.—This Prize, 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 by Colin H. Livingstone, B.A., to Undergraduates (men or women) from the Maritime Provinces, Nova Scotia, New Brunswick and Prince Edward Island. In April, 1899, it will be awarded to that Undergraduate of the Provinces, most satisfied ditions laid

10. Vand Society of be awarded

11. Scient mission for of the val rare instan the Report (such as P of which is Their object but "to ena with the vie the industri

Three no placed by the posal of M When no of not less or of Appli at any othe

12. The facates or 1 mention, in Years, of th been received

As will b courses of 1 are such as limited time lass, a thorough Grammar; reading from such poetic

e above standard, be offered in the

to the end of the

hours each—one lysis.

Stewart, M.A., d by the liberalek Hill.

-This prize, the will be awarded urly English be-

on Anglo-Saxon.

Press Series, ed. 393. The Lay of d. Skeat).

is Prize, the auen to Graduates itical knowledge

This Prize, ine Rev. Chas. G. mar School, St. stone, B.A., to Maritime Provnce Edward Isthat Undergraduate of the First, Second or Third Year, from the above Provinces, who, in the opinion of the Faculty, has passed the most satisfactory Sessional Examinations, under certain conditions laid down by the donor.

10. Vancouver Society's Prize.—The Vancouver (B.C.) Society of McGill Graduates, offers a prize of \$10, which will be awarded in 1898-99 for proficiency in History.

11. Science Scholarships Grarted by Her Majesty's Commission for the Exhibition of 1851.—These scholarships of the value of £150 a year are tenable for two or, in rare instances, three years. They are limited, according to the Report of the Commission, "to those branches of Science (such as Physics, Mechanics and Chemistry) the extension of which is specially important for our national industries." Their object is not to facilitate ordinary collegiate studies, but "to enable students to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country."

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

When nominations are offered, they are open to Students of not less than three years standing in the Faculty of Arts or of Applied Science, and are tenable at any University or at any other Institution approved by the Commission.

12. The names of those who have taken Honours, Certicates or Prizes will be published in order of merit, with mention, in the case of Students of the First and Second Years, of the schools in which their preliminary education has been received.

# 8. Partial Students.

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

For conditions of Entrance see p. 50.

# 9. Attendance and Conduct.

All students shall be subject to the following regulations:-

1. A Class-book shall be kept by each Professor or Lecturer, in which the presence or absence of Students shall be carefully noted; and the said Class-book shall be submitted to the Faculty at all their ordinary meetings during the Session.

2. Each Professor shall call the roll at the beginning of the lecture. Credit for attendance on any lecture may be refused on the grounds of lateness, inattention, neglect of study, or disorderly conduct in the class-room. In the case last mentioned, the student may, at the discretion of the Professor, be required to leave the class-room. Persistence in any of the above offences against discipline shall, after admonition by the Professor, be reported to the Dean of Faculty. The Dean may, at his discretion, reprimand the student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from Classes.

3 Absence from lectures can only be excused by necessity or duty, of which proof must be given, when called for, to the Faculty. The number of times of absence, from necessity or duty, that shall disqualify from the keeping of a session shall in each case be determined by the Faculty.

4. While in College, or going to or from it, Students are expected to conduct themselves in the same orderly manner as in the class-rooms. Any Professor observing improper conduct in the College buildings or grounds may admonish the student, and, if necessary, report him to the Dean. Without as well as within the walls of the College, every student is required to maintain a good moral character.

5. When students are brought before the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, impose fines, disqualify from competing for prizes or honours, suspend from classes, or report to the Corporation for expulsion.

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

8. All cas Faculty, or o to the Princ

(N.B.—All while in or a At a meet request all m at University

Students and on any subject at the regular

All fees and The fees m the Dean wit in each sessic moved from t permission of Undergradu

who have enter and are pursu old scale of f

1. Underg for Laboratory tion. In the I of practical in Course.

Every candi any Faculty n This will be re not be returne Matriculation

tion to the se

2. Partial for one course session for eac

he University

regulations:-

or Lecturer, in carefully noted; culty at all their

ig of the lecture. on the grounds y conduct in the may, at the dislass-room. Perpline shall, after Dean of Faculty. ent, or refer the r in the interval

by necessity or , to the Faculty. duty, that shall h case be deter-

itudents are exnanner as in the conduct in the student, and, if ell as within the naintain a good

under the above ts or guardians, es or honours, or expulsion.

ce on or before e dollar. 7. Any student injuring the furniture or buildings will be required to repair the same at his own expense, and will, in addition, be subject to such other penalty as the Faculty may see fit to inflict.

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

(N.B.—All students are required to appear in Academic d.ess while in or about the College buildings.

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

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

## III. FEES.

All fees and fines are payable to the Bursar.

The fees must be paid to the Eursar, and the receipts shown to the Dean within a fortnight after the commencement of attendance in each session. In case of default, the student's name will be removed from the College books, and can be replaced thereon only by permission of the Faculty, and on payment of a fine of \$2.

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

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

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

Matriculation fee for entrance into the Second Year, \$10, in addition to the sessional fee.

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

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

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

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

Partial Students taking the full curriculum in any one year pay the same fees as Undergraduates in that year.

N.B.-Every student is required to deposit with the Bursar the surn of \$3 as caution money for damage done to furniture, apparatus or books, etc.

# Special Fees.

ELOCUTION (optional)	\$5	00
GYMNASIUM (for partial students), optional	2	50
SUPPLEMENTAL EXAMINATION, at the regular date fixed by the		
Faculty	2	00
SUPPLEMENTAL EXAMINATION, when granted at any other time than		
the regular date fixed by the Faculty	5	00
FEE FOR A CERTIFICATE OF STANDING, if granted to a student on		
application	I	00
FEE FOR A CERTIFICATE OF STANDING, if accompanied by a state-		
ment of classification in the several subjects of examination	. 2	00
EXAMINATION FEE for candidate intending to enter the Medical		
Faculty	5	00

(Note.-The special laboratory fees for the Second, Third and Fourth Years will be found in the Calendar of 1897-98.)

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

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

Special fees are additional to the regular fees paid by Undergraduates or Partial Students, but are payable only for the optional classes or objects named above.

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

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

Graduates in Arts of this University are allowed, on payment of one-half of the usual fees, to attend all lectures, except those for which a special fee is exigible.

FEE 64

If the D didate, on is \$25. The M.A tary of the of the appl Dean of th

Extract

"From

" shall pay

"graduati

"bc enter

" shall hay

# IV

1. A Sch year.

2. Schola passed the more than t also to Can equivalent s tion be mad ation.

3. Schola Scholarshi ships. The

Science Calculus: A Higher Alg Botany; Ch -\$25 per session Library; \$20 per

66

the four College

rly for "Athletics ate in writing to

one year pay the

e Bursar the surn ire, apparatus or

	\$5 00
	2 50
d by the	
	2 00
r time than	
	5 00
student on	
	I 00
by a state-	
nation	2 00
ne Medical	
	5 00
cond, Thire	d and
97-98.)	· ·
to the Sec	cretary

ctures unless the

id by Undergradfor the optional

haid to the Bursar, nination. or the Library.)

ed, on payment of

pt those for which

#### . . . . . . LL.D..... 80 00

\$16 00

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

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

# Extract from the Regulations of the Board of Governors for Election of Fellows under Chap. V. of the Statutes of the University.

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

# IV. SCHOLARSHIPS AND EXHIBITIONS. General Regulations.

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

2. Scholarships are open for competition to Students who have Scholarpassed the University Intermediate Examination, provided that not more than three sessions have elapsed since their Matriculation; and also to Candidates who have obtained what the Faculty may deem equivalent standing in some other University, provided that application be made before the end of the Session preceding the examination.

3. Scholarships are divided into two classes :-(1) Science Scholarships; (2) Classical and Modern Language Scholarships. The subjects of examination for each are as follows :--

Science Scholarships.-MATHEMATICS-Differential and Integral Calculus; Analytic Geometry; Plane and Spherical Trigonometry; Higher Algebra and Theory of Equations. NATURAL SCIENCE-Botany; Chemistry; Logic. (For subdivision, see below.)

Classical and Modern Language Scholarships.—Greek, Latin, English Composition; English Language and Literature; French or German.

Exhibitions. 4. Exhibitions are assigned to the First and Second Years. First Year Exhibitions are open for competition to candidates for entrance into the First Year.

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

The subjects of examination are as follows:-

First Year Exhibitions. — CLASSICS, MATHEMATICS, ENGLISH, FRENCH.

Second Year Exhibitions.—CLASSICS, MATHEMATICS, ENGLISH LANGUAGE AND LITERATURE, FRENCH OR GERMAN.

5. The First and Second Year Exhibition Examinations will, for Candidates who have not previously entered the University, be regarded as Matriculation Examinations.

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

7. Exhibitions and Scholarships will not necessarily be awarded to the candidates who have obtained the highest marks. An adequate standard of merit will be required.

8. If in any College Year there be not a sufficient number of candidates showing adequate merit, any one or more of the Exhibitions or Scholarships offered for competition may be given to more deserving candidates in another year.

9. A successful candidate must, in order to retain his Scholarship or Exhibition, proceed regularly with his College Course to the satisfaction of the Faculty.

10. The annual income of the Scholarships or Exhibitions will be paid in four instalments, viz. :-In October, December, February and April, about the 20th day of each month.

11. The Examinations will be held at the beginning of every Session.

For the session 1898-99 there are thirty-four Scholarships and Exhibitions including the following :--

The Jane Terr both

The McDo McD

The Charl ander of C

> The Geor Mont value

The Major Majo

The Barba Scott, Classi

Two Donal ment

One Donal

Ottawa Va sults (

# Exhibitic

Through enabled to for one yea The follo

> Two 1 Two One One One Twelv

\*Open also tuted for Gro s.-Greek, Latin, ature; French or

id Years. to candidates for

tion to Students nations, provided ce their Matric-Second Year.

ATICS, ENGLISH,

AATICS, ENGLISH

inations will, for iniversity, be re-

n or Scholarship

arily be awarded ks. An adequate

t number of canthe Exhibitions to more deserv-

his Scholarship urse to the satis-

chibitions will be er, February and

inning of every

larships and Ex-

- The Jane Redpath Exhibition, founded by Mrs. Redpath, of Terrance Bank, Montreal:-value, about \$90 yearly, open to both men and women.
- The McDonald Scholarships and Exhibitions, founded by W. C. McDonald, Esq., Montreal :--value, \$125 each, yearly.
- The Charles Alexander Scholarship, founded by Charles Alexander, Esq., Montreal, for the encouragement of the study of Classics and other subjects:-value, \$90 yearly.
- The Major H. Mills Scholarship, founded by bequest of the late Major Hiram Mills :--value, \$100 yearly.
- The Barbara Scott Scholarship, founded by the late Miss Barbara Scott, Montreal, for the encouragement of the study of the Classical languages and literature :--value, \$100 to \$120 yearly.

One Donalda Scholarship.- value, \$125 yearly.

Ottawa Valley Graduates' Society Exhibition, awarded on results of June Examination.

# Exhibitions and Scholarships Offered for Competition at the Opening of the Session, Sept. 15th, 1899.

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

The following is a complete list:-

Two	Exhibitions	of	\$200	each.	
Two	51	**	125		(Open to men only)
One	**	"	120	**	
One	"	**	120	"	(Open to women only)
One	"	**	100	""	(Open to women only) *
One	"	"	90	.4	
Twel	ve "	"	60	each.	Sec. She have been she

\*Open also to the Second Year. A modern language may be substituted for Greek (see announcement for Donalda Department p. 81.) The twelve Exhibitions of sixty dollars each shall be open for competition to residents in any part of Canada *except the Island of Montreal.* All the other Exhibitions shall be open to general competition without such limitation.

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

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

In the Province of Nova Scotia, at Halifax.

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

In the Province of Prince Edward Island, at Charlottetown.

In the Province of Manitoba, at Winnipeg.

In the Province of British Columbia, at Victoria and Vancouver.

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

No application received after September 1st will be considered.

All the other Entrance, Exhibition and Scholarship Examinations of September, 1898, will be held at McGill University only.

For subjects of Examination see under pp. 46-49.

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

Subjects of Greek.—XENOPHON, Luciani Vera Historia (Jerram); DEMOS-Examina THENES, Olynthiacs, I. and II.; EURIPIDES, Alcestis. tion.

Latin.-VIRGIL, Georgics, Bk. I.; HORACE, Odes, Bk. IV.; Livy, Bk. XXI.

Greek and Latin Prose Composition, and Translation at sight. A paper on Grammar and History.

Text Books.—Myers' Ancient History; Abbott's Arnold's Greek Prose Composition, or Sidgwick's First Greek Writer; Ramsay's Latin Prose, Vol. I.

# Mathems Algebra (H part); Trig with deduct

English Words. L (Macmillan) Webb (Mac Ages (Epoc tion.\_\_The subject conn

French.-Saint; F. ( s'amuse, Or

Or, instea

German.-Accidence an Kinder-und 1 Neffe als On mann und D

No Cand more than bition.

To Studen \$125, or

Two of the two being for Science and Mathemati

> 3, 4, 225-24 I, 2, 150-15 Geom (omit Trigo nome four c

> > of Eq

n shall be open inada except the s shall be open

College, Mont-, provided that tary of McGill ; than Septem-

Kingston and

John. , at Charlotte-

. ctoria and Van-

's. st will be con-

olarship Exam-McGill Univer-

Exhibitions of

erram); DEMOS-

, Bk. IV.; Livy,

ation at sight.

Arnold's Greek Nriter; Ramsay's

and Falls &

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

English and Modern History.—Language.—TRENCH, Study of Words. Literature.—SPENCER, Faerie Queene, Bk. I., ed. Percival (Macmillan); TENNYSON, Selections from Tennyson, ed. Rowe and Webb (Macmillan). History.—CHURCH, The Beginning of the Middle Ages (Epochs of Modern History, Longmans'). English Composition...The candidate will be required to write an essay on some subject connected with the literature or history prescribed.

French.—French Grammar including Syntax.—PAUL BOURGET, Un Saint; F. COPPÉE, La Grève des Forgerons; V. Hugo, Le roi s'amuse. Oral Examinations.

Or, instead of French :--

German — German Grammar (an amount equal to VANDERSMISSEN, Accidence and Syntax, including exercises in Translation); GRIMM, Kinder-und Hausmaerchen (Vandersmissen's edition); SCHILLER, Der Neffe als Onkel, Der Gang nach dem Eisenhammer; GOETHE, Hermann und Dorothea; Translation from English into German.

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

To Students Entering the Third Year, three Scholarships of \$125, one of \$100, and one of \$90, tenable for two years.

Two of these are offered in Mathematics and Logic, one of the two being for the Donalda Department only, and one in Natura: Science and Logic as follows:—

Mathematics. — Differential Calculus (WILLIAMSON, Chaps. I, 2, 3, 4, 7, 9; Chap. 12, Arts. 168-183 inclusive; Chap. 17, Arts. 225-242 inclusive). Integral Calculus (WILLIAMSON, Chaps. I, 2, 3, 4, 5; Chap 7, Arts. 126-140 inclusive; Chap. 8, Arts. 150-156 inclusive; Chap. 9, Arts. 168-176 inclusive). Analytic Geometry (SALMON, Conic Sections, subjects of chaps. 1-13 (omitting Chap. 8), with part of Chap. 14). Lock, Higher Trigonometry; McLELLAND and PRESTON, Spherical Trigonometry, Part I. SALMON, Modern Higher Algebra (first four chapters). TODHUNTER or BURNSIDE and PANTON, Theory of Equations (selected course).

## Logic as in Jevons' Elementary Lessons in Logic.

79

2. Natural Science.—BOTANY, as in course I, including a practical acquaintance with Canadian species of Spermatophytes and Pteridophytes. Text-book of Botany, by Strasburger, Noll, Schenck and Schimper (trans. by Porter), Parts II and III., and Sachs' History of Botany. CHEMISTRY as in Roscoe's Lessons in Elementary Chemistry. LOGIC, as in Jevons' Elementary Lessons in Logic.

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

Subjects of Examina tigone. Greek.—PLATO, Phaedo; THUCYDIDES, Book VI.; SOPHOCLES, An tigone.

Latin.—HORACE, Epistles, Book I.; CICERO, Pro Roscio Amerino; VIRGIL, Aeneid, Book VI.; SALLUST, Catiline; CICERO, Select letters, (Pritchard and Bernard, Clarendon Press Series).

Greek and Latin Prose Composition, and Translation at Sight.

- Ancient History.— Text-Books.—SMITH, Student's Greece; MOMM-SEN, Rome (abridged).
- English and History. Literature. SHAKSPERE, Tempest, ed. Deighton (Macmillan); MILTON, Paradise Lost, Bks. I. and II. (Macmillan); LAMB, Essays of Elia, ed. Hallward and Hill (Macmillan). History.—MYERS, Mediaeval and Modern History (Ginn), Part I. English Composition. —The candidate will be required to write an essay on some subject connected with the literature or history prescribed.

English Composition.-High marks will be given for this subject.

French.—RACINE, Britannicus; MOLIERE, Les Femmes Savantes. French Grammar. BOUNEFON. Les Ecrivains célèbres de la France. Oral examination; Dictation.

For September, 1899. RACINE, Britannicus; MOLIERE, Le Misanthrope; A. DE MUSSET, Les Nuits; A. DE VIGNY, Cinq Mars. Grammar, LANSON, Literature Francaise. Oral Examination.

Or, instead of French :--

German.— Schiller.— Egmont's Leben und Tod (Buchheim), die Kraniche des Ibycus, Das Lied von der Glocke, der Kamp mit d Pitt Comp Dictat

In the Exhile be substituted 1897-98.

FIRST YEAR.

FIRST YEAR.-

FIRST YEAR .-

FIRST YEAR.

SECOND YEAR

SECOND YEAR.

V. CEN

Board and per month; Ro from \$12 to \$18 Students can the Secretary.

## in Logic.

cluding a practical ermatophytes and Strasburger, Noll, Parts II and III., 5 in Roscoe's Les-5 in Jevons' Ele-

rbara Scott, \$100 ssics and Modern

; SOPHOCLES, An

Roscio Amerino; ine; CICERO, Select Press Series).

ation at Sight.

t's Greece; MOMM.

iE, Tempest, ed. Lost, Bks. I. and , ed. Hallward and iaeval and Modern sition. -The candion some subject prescribed.

n for this subject.

Femmes Savantes, ains célèbres de la

IOLIERE, Le Misan-IGNY, Cinq Mars. Examination.

d (Buchheim), die Glocke, der Kampi mit dem Drachen; IMMERMANN, Der Oberhof (Wagner, Pitt Press); GOETHE, Egmont; German Grammar and Composition; Translation from English into German; Dictation.

## Changes for September, 1899.

In the Exhibition Examinations, September, 1899, the following will be substituted for the corresponding books in the Calendar for 1897-98.

- FIRST YEAR.—Greek.—Xenophon, Anabasis II or I.; Homer, Odyssey XIII.; Euripides, Sidgwick's Scenes from Hecuba, or Iliad VI.
- FIRST YEAR.—Latin—Caesar B. G., V. VI.; Virgil, Aeneid, V. or I.; Cicero, Catiline Orations III., IV.
- FIRST YEAR.—French—A. Dumas, La question d'Argent; About L'homme à l'oreille cassée; Labiche, Moi.
- FIRST YEAR.—English—In place of *History* the following Essays of Macaulay :—Ranke's History of the Popes; Frederick The Great; Dumont's Recollections of Mirabeau.
- SECOND YEAR.-French-Balzac, Le Cousin Pons; Victor Hugo, Ruy Blas; De Vigny, Le Cor; Barbier, l'Idole.
- SECOND YEAR.—German.—Add to texts already prescribed Baumback, Die Nonna (Heath & Co.).

# V. CENERAL INFORMATION FOR STUDENTS. Boarding Houses.

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

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

# Special Course for Women\*

# IN THE FACULTY OF ARTS.

# DONALDA ENDOWMENT.

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

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

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

In September, 1898, a Scholarship, value \$125 yearly (tenable for two years), will be offered for competition in Mathematics to Students of the Third Year. The course is the same as for the Mathematical Scholarship open to men.

The Jane Redpath Exhibition is open for competition, at the beginning of the First or Second Year, to both men and worzen.

For September, 1898, there are fifteen Exhibitions open to the First Year only, both men and women. (See pp. 76-77),

Two other Exhibitions (one of the value of \$120, the other \$100) are open for competition in the First or Second Year to Students of the Donalda Department only. For Subjects see pp. 46-49. Candidates for these Exhibitions are allowed, according to the general rule of the Donalda Department, to substitute an additional modern language for Greek in the examination. In this case while the regulation concern-

\*Subject to re-arrangement on the opening of the Royal Victoria College.

ing one mod p. 46, the con in the Exhit For First Ye French.—See p or German. STORM, die Kin

Eisenha (Heath tion at

For Second French.—See p

or German.und To Goethe, Gramma English

The income Fund will be a

> I. M The same E

II. ORDINAR'

For all Subje The Second Y THOMAS' Germa GŒTHE, Hern (Heath & C Two hours

A class will be a and open t

Instruction in th arrangemen

# uperintendent,

t are wholly rs (including ourth Years). nen. Women to Classing,

, Boardingseum are the demic Dress;

yearly (tenon in Mathee is the same 1.

mpetition, at oth men and

tions open to e pp. 76-77), 20, the other Second Year For Subjects tions are alnalda Departge for Greek tion concern-

'ictoria College.

82

ing one modern language will, for Entrance only, be as on p. 46, the course in that which is to be substituted for Greek in the Exhibition Examination will be:—

For First Year :--

French.—See pages 46-49.

or German.—German Grammar and Composition; THEODOR STORM, Immensee (Heath & Co.); VON HILLERN, Höher als die Kirche (Heath & Co.); SCHILLER Der Gang nach dem Eisenhammer, Das Lied von der Glocke; STIFTER, Haidedorf (Heath & Co.); GOETHF, Götz von Berlichingen. Translation at Sight. Translation from English into German.

For Second Year :--French.-See page 78.

or German.—SCHILLER, Der Neffe als Onkel, Egmont's Leben und Tod, Der Geisterseher, Die Kraniche des Ibykus; Goethe, Torquato Tasso. Translation at Sight; German Grammar and Composition; Translation of French and English into German.

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

# I. MATRICULATION AND ADMISSION.

The same Examination as for men.

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

(In separate Classes.)

For all Subjects (except German) in all the Years, see pp. 4-34 The Second Year course in German is as follows :--

THOMAS' German Grammar; LESSING, Minna von Barnhelm; GŒTHE, Hermann und Dorothea; BAUMBACH, Der Schwiegersohn (Heath & Co.).

Two hours a week.

## Physical Education.

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

### Elocution.

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

# Honour and Additional Courses. (In Mixed Classes.)

83

Undergraduates desiring to take one of the Honour Courses in CLASSICS, MATHEMATICS, MATHEMATICAL PHYSICS, MENTAL AND MORAL PHILOSOPHY, ENGLISH LANGUAGE AND LITERATURE, HISTORY, THE NATU-RAL SCIENCES, MODERN LANGUAGES or such portions of the Honour Courses as constitute the Additional Courses, may in the Third and Fourth Years obtain exemptions to the same extent as men, and must take the lectures with men.

Details will be found on pp. 56 &.

## III. DEGREES.

Students are admissible to the degrees of B.A., M.A., and LL.D., conferred in the usual way, on the usual conditions; and will be entitled to all the privileges of these degrees, except that of being elected as Fellows.

# IV. FEES.

The fees, which are the same as for men (see pp. 72-73), are to be paid to the Registrar of the University, from whom tickets for the Library and copies of the Library Rules may be obtained.

# V. LODGINGS, &c.

Women not resident in Montreal, proposing to attend classes, and desiring to have information as to suitable lodgings, are requested to intimate their wishes in this respect to the Registrar of the University, at least two weeks before the opening of the session. Students desiring information as to the above or other matters are referred to the Lady Superintendent, who will be found in her office in the rooms of the Donalda Department, every day during the session, except Saturday.

# Lectures Open to Partial Students, Session 1898-99.

Rhetoric :--English :---History :---\*1 atin and

\*French. \*German.

\*Mathemati \*Mathemati

Those Co will each an portion.

\* The lectu Course.

2

VEAR

SECOND

our Courses in ral and Moral ory, the Natuof the Honour the Third and nt as men, and

S.

A., M.A., and al conditions ; ie degrees, ex-

3), are to be paid s for the Library

ing to attend suitable lodgthis respect to eeks before the ormation as to e Lady Superie rooms of the session, except

sion 1898-99.

Mr. Lafleur. afleur. Rhetoric :--Mr. Lafleur. English :--Prof. Moyse. History :--Dr. Colby. \*1 atin and Greek. \*French. \*German. \*Mathematics and \*Mathematical Physics.

Those Courses in which two lectures weekly are delivered will each amount to about 45 lectures, and the others in proportion.

\* The lectures on these subjects extend over all the Years of the Course.

# DONALDA DEPARTMENT.

TIME TABLE, SESSION 1898-9.

YEARS	Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	
В.	9	Greek.	Physics.	French.	Greek.	Greek.	
	10	English.	English.	Greek.		Mathematics.	
FIRST YEAR.	11	German.	Mathematics.	Latin, English.		French.	
FIRST	12	Latin.	Latin.	Mathematics.	German.	Latin. German.	
-	2	Mathematics.	French.	German.	French.		
•	3				Physics.		
	9		Greek.	Latin.	French.		
	10	Mathematics.	†Mathematics,	French.	Greek.	Latin.	
EAR.	11	Botany.	Math, Phys.	Greek.	† Mathematics.	German.	
SECOND YEAR	12	Logic.	Latin.	Botany,		Mathematics	
	2			Logic.	1 the second	Logic.	
	3	German.		Mod. History.	French.	Mod. History	
	4		1.			and the state	

84

L



			ME TADI	E = Continu		· · · ·	
ARS	Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAV.	
THIRD YEAR.	9	Latin.	German.	German. Greek.		1 anna	
	10	1	Exp. Physics.		Greek. Exp. Physics.	French.	
	11	French.	Rhetoric.		Math. Phys.	Latin.	
	12	English.	Zoology.	•	Zoology.	Math. Phys.	
	2		Botany.	Pract, Zool.		Botany.	
	3	Metaphysics.	-	Metaphysics. Pract, Zool,			
	4	German.					
	9	Astronomy (a)	German.	German,	Moral Phil.	Geology.	
	10	French.	Exp. Physics. Greek.	Geology.	Exp. Physics.	French.	
FOURTH YEAR.	11		Latin.	English Lit.	Math. Phys.	Latin. Astronomy(a)	
	12	Geology.	Moral Phil.	Mineralogy (a) Motal Phil.	Greek.	Math. Phys.	
	z	Zoology.	Botany.		Zoology.	Botany.	
	3					Actual	
	4				German.		

TIME TABLE - Continued.

\_\_\_\_ YB

85

Advanced Sections will be formed in all subjects in the first two years so far as practi-cable and in these Honours may be awarded. In Mathematics there is an Advanced Section in the First Year. 2 hours a week. † For Candidates for Honours. (a) During First Term. Honour Courses (Third and Fourth Years) will be given in the following subjects, the precise hours for which will be arranged to suit the convenience of the classes. CLASSICS: Third and Fourth Years, 6 hours a week. ENGLISH Third Year, 6 hours a week; Fourth Year, 2 hours a week. FRENCH : Third Year, 2 hours a week; Fourth Year, 2 hours a week. GERMAN: Third Year, 2 hours a week; Fourth Year, 2 hours a week. HISTORY: Third and Fourth Years, 5 hours a week. MENTAL AND MORAL PHILOSOPHY: Third Year, 2 hours a week; Fourth Year, 2 hours a week; Sourth Year, 2 hours a week week.

week. MATHEMATICS, MATHEMATICAL PHYSICS AND ASTRONOMY : Third Year, 4 hours a week; Fourth Year, 4 hours a week. GEOLOGY AND MINERALOGY : Third Year, 4 hours a week (First Term) ; 5 hours a week ;

econd Term); Fourth Year, 7 hours a week. BIOLOGY: 4 hours a week and 4 periods of Practical Work.

BIOLOGY : 4 Nours a week and 4 periods of Practical Work. THE CHEMICAL LABORATORIES are open every day (except Saturday) from 9 a.m. to 5 p.m. PRACTICAL PHYSICS: Third Year, Monday, 10 a.m. to 1 p.m., or Friday, 2.30 p.m. to 5.30 p.m.; Fourth Year, Wednesday, 2.30 p.M. to 5.30 p.m. THE BOTANICAL LABORATORIES are open daily from 9 a.m. to 5 p.m. Saturday Classes in General Morphology (and Year), 11 a.m. to 1 p.m. GBOLOGY: Demonstrations and Excursions on Saturday. The Petrographical Laboratory is open every day throughout the Second Term. THE ZOOLOGICAL LABORATORY is open daily from 9 a.m. to 1 p.m. and from 2 p.m. to 5 p.m. Practical Work under the supervision of the Professor and Demonstrator, Wednesday, 2 p.m. to 4 p.m., and Saturday, 9 to 12 a.m. The time for Practical Work in the Fourth Year will be arranged. N.B.- The hours in this table are subject to alterative during the 5 union

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

Officers of Ins General Staten Conspectus of Matriculation : Examinations . Graduate Cour Attendance and Library ..... Museum ..... Fees ..... Medals, Exhib Special Provis Special Lecture Courses of Lec Are Civ Hy Sur Des Fre Ele Me Min Che The Geo Zoc Bot Ex Ma Eng Me Laboratories.. Museums.... Workshops... Board and Lo

Societies ..... Research Work Time Table ....

DAY.	FRIDAV.
k. hysics.	French.
Phys.	Latin.
gy.	Math. Phys.
	Botany.
Phil.	Geology.
hysics.	French.
Phys.	Latin. Astronomy(a)
eek.	Math. Phys.
	Math. Phys. Botany.
eek.	

o years so far as practi-e is an Advanced Section

wing subjects, the precise

eek. eek. reek.

; Fourth Year, 2 hours a rd Year, 4 hours a week; t Term); 5 hours a week;

ay) from 9 a.m. to 5 p.m. ., or Friday, 2.30 p.m. to p.m. Saturday Classes in Petrographical Laboratory

p.m. and from 2 p.m. to bemonstrator, Wednesday, Work in the Fourth Year

g the Sassion.

# FACULTY OF APPLIED SCIENCE.

CONTENTS.

P	AGE
Officers of Instruction, etc	88
General Statement	90
Conspectus of Subjects	91
Matriculation and Admission	92
Examinations	94
Graduate Course	96
Attendance and Conduct	98
Library	98
Museum	99
Fees	100
Medals, Exhibitions, etc	101
Special Provisions	104
Special Lectures	105
Courses of Lectures :	
Architecture	106
Civil Engineering and Applied Mechanics	108
Hydraulics	ITI
Surveying and Geodesy	113
Descriptive Geometry	115
Freehand and Engineering Drawing	115
Electrical Engineering	116
Mechanical Engineering	119
Mining and Metallurgy	121
Chemistry and Assaying	125
Thermodynamics	126
Geology and Mineralogy	126
Zoology	127
Botany	127
Experimental Physics	128
Mathematics and Mathematical Physics	130
English Language and Literature	131
Meteorology	131
Laboratories	131
Museums	149
Workshops	150
Board and Lodging	151
Societies	. 152
Research Work, 1897-98	154
Time Table	156

# faculty of Applied Science.

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

# PROFESSORS.

- B. J. HARPINGTON, M.A., Ph.D., F.R.S.C., Greenshields Professor of Chemistry and Mineralogy.
- HENRY T. BOVEY, M.A., D.C.L., Scott Professor of Civil Engineering and Applied Mechanics.
- C. H. McLEOD, Ma.E., F.R.S.C., M.Can.Soc.C.E., Professor of Surveying and Geodesy, Lecturer in Descriptive Geometry, and Superintendent of the Observatory.

G. H. CHANDLER, M.A., Professor of Applied Mathematics.

JOHN Cox, M.A., McDonald Professor of Physics.

J. T. NICOLSON, B.Sc., M.Can.Soc.C.E., Workman Professor of Mechanical Engineering, and Lecturer in Thermodynamics.

STEWART HENBEST CAPPER, M.A., A.R.I.B.A., R.C.A., McDonald Professor of Architecture.

J. B. PORTER, E.M., Ph.D., M.Can.Soc.C.E., McDonald Professor of Mining.

.... McDonald Professor of Chemistry.

. .. McDonald Professor of Physics.

.... McDonald Professor of Electrical Engineering.

(The above Professors constitute the Faculty.)

R. S. Lea of Ci HENRY F Geon R. J. Du Mech . . . . NEVIL No J. G. G. Surveyi

L. HERDI

H. M. TO F. H. PIT ALEXAND H. T. BA H. M. JA JOHN W.

With tl sors and CHARLES guag D. P. PE Botai FRANK D of Ge C. W. Co E. W. M/

# ASSISTANT PROFESSORS AND LECTURERS.

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

HENRY F. ARMSTRONG, Assistant Professor of Descriptive Geometry and Freehand Drawing.

R. J. DURLEY, B.Sc., A.M.Inst.C.E., Assistant Professor of Mechanical Engineering.

. . . . . . Assistant Professor of Civil Engineering. NEVIL NORTON EVANS, M.A.Sc., Lecturer in Chemistry.

J. G. G. KERRY, Ma.E., Asso.M.Can.Soc.C.E., Lecturer in Surveying and Descriptive Geometry.

L. HERDT, Ma.E., E.E., Lecturer in Electrical Engineering.

#### DEMONSTRATORS.

H. M. TORY, M.A., in Physics.

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

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

H. T. BARNES, M.A.Sc., in Physics.

H. M. JAQUAYS, B.A., B.A.Sc., in Mechanical Engineering. JOHN W. BELL, B.A.Sc., in Mining.

With the foregoing are associated the following PROFES-SORS and LECTURERS of the Faculty of Arts:---

CHARLES E. MOYSE, B.A., Molson Professor of English Language and Literature.

D. P. PENHALLOW, B.Sc., M.A.Sc., F.R.S.C., Professor of Botany.

FRANK D. ADAMS, M.A.Sc., Ph.D., F.G.S., Logan Professor of Geology.

- C. W. COLBY, B.A., Ph.D., Professor of History.
- E. W. MACBRIDE, M.A., B.Sc., Professor of Zoology.

ence.

M. Inst. C.E.,

, Greenshields

ofessor of Civil

C.E., Professor in Descriptive bservatory.

Mathematics. ysics.

Lecturer in

.B.A., R.C.A.,

.E., McDonald

gineering.

Faculty.)

# FACULTY OF APPLIED SCIENCE.

# § I. GENERAL STATEMENT.

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

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

# § II. SUBJECTS OF INSTRUCTION.

The table on the following page shows the subjects of instruction and the hours per week devoted to each subject in the several Courses, viz:—

I.—ARCHITECTURE.

II.—CIVIL ENGINEERING AND SURVEYING.

III.—ELECTRICAL ENGINEERING.

IV.-MECHANICAL ENGINEERING.

V.-MINING ENGINEERING.

VI.—PRACTICAL CHEMISTRY.

Chemistry.... Descriptive G English..... Mathematics. Mechanism. Freehand Dra Chemical Lab Mathematical Shopwork .... Architecture, Architectural Botany..... Building Cons Chemistry.... Descriptive G Freehand Dra Kinematics of Mathematics. Modelling .... Physics ..... Surveying.... Zoology\* Drawing Physical Labo Shopwork ... Architecture Chemistry... Decoration, O Descriptive Ge Determinative Dynamics of I Electrical Eng Freehand Dra Geology and M Mathematics. Machine Desi Metallurgy... Modelling Municipal En Physics..... Railroad Engi Surveying. . Theory of Str Zoslogy \*.... Drawing and I Electrical Eng Mining and M Physical Labo Testing Labor Shopwork .... Architecture & Art, History o Assaying..... Chemistry.... Decoration, O Dynamics of Electrodyram Electrical En Geodesy..... Geology and N Heating and S Hydraulics.... Machine Desi Modelling Municipal Eng Metallurgy .... Mining Railroad Engi Theory of Stru Thermodynam Thermodynam Drawing and I Electrical En Geodetic Labo Hydraulic La Mechanical La Mining and M Museum Worl Physical Labo Physical Labo Testing Labor Thermodynam Shopwork .... (a) First term. ( besides work i

SUB

CE.

# C.

d to afford a well as theorethe profession er any of the ering and Surying, Practical uring Art. on such underconditions and be, in the first mention being tment of study Master of En-(§ IV.)

# CION.

subjects of ineach subject in

G.

		91				-	
SUBJECTS :		I	п	111	IV	v	VI
Chemistry	12 X.111 0	2	2	2	2	2	2
Descriptive Geometry	** 4	6(a), 3(b)	6(a), 3(b)	6(a),3(b)	6(a), 3(b)	6(a), 3(b)	2
English	" 16 " 15	2 10	2	2	10	10	10
Mechanism	" 7	I	I	I	I	I	1 3
Freehand Drawing	" 5	3	3	3	3	3	3
Chemical Laboratory Mathematical Laboratory	2 XIV. 2	3 (b)	3 (b)	3 (b	3 (b)	3 3 (b)	3 <sup>(b)</sup>
Shopwork	SXVI.	7	7	7	7	7	7
Architecture, Theory of Architectural History	§ XIII., 1	I	1 -	1 -	-	-	
Architectural History Botany			2	-	-	-	-
Building Construction	** 13		1	I	I	I	1
Chemistry	" 9		-	-	-	7 3	14
Descriptive Geometry Freehand Drawing	" 5	33	3	3	3	3	-
Kinematics of Machinery	" 7		-	1 (b)	I	-	-
Mathematics	" 15 ·· 8	6	6	6	6	6	-
Mining Metallurgy	" 8						
Modelling	" 2		1			1	
Physics Surveying	" 14		2	2	2	2	3
Zoology*	" 13		3	-		33	_
Drawing	2 VIV 5	10	36	3	3	3	
Zoology* Drawing Physical Laboratory Shopwork.	§ XIV. 16 § XVI. 3		3	36	36	3	3
Architecture & Arch. History.	2 XIII., 1		1				
Chemistry	" 9		-	-	-	6	16
Decoration, Ornament, etc Descriptive Geometry	. 4			_	_	_	_
Determinative Mineralogy	" 11		-	-	_	3	3
Dynamics of Machinery	· · · · · · · · · · · · · · · · · · ·		-	2	2	-	-
Electrical Engineering Freehand Drawing (Figure, etc).	" 1		-	1	-	-	-
Geology and Mineralogy * *	" 11	-	3	-	-	4 to 5	4 to 5
Mathematics	44 IS		3	3	35	3	-
Metallurgy	. 7		-	2	5	-	
Modelling Municipal Engineering	44 I				in the second		
Physics	4 I4		2	2	1 2	2	2
Railroad Engineering	** 2		I	-	-	Opt.	-
Surveying Theory of Structures	44 3 44 2		3		-(-)	3	
Zoolozy *	" 12		5 (a)	5 (a)	5 (a)	5 (a)	3
Drawing and Designing Electrical Engineering Lab	e viv		9	3	3	3	-
Mining and Metallurgical Lab	§ XIV. 6		-	3 (b)			-
Physical Laboratory	** 16		3	3, 6 (d,b)	3.	3	3
Testing Laboratory Shopwork	3 XVI. 2		7 (b)	4 (b) 6	4 (b)	4 (b)	-
Architecture & Arch. History		2		1 0		-	
Art, History of.	1	-	i —	-	-	-	-
Assaying	9 " 9		-	-	-	9	
Decoration, Ornament, etc		6	-	-	-	-	24
Dynamics of Machinery	1 ** 7		-	1(a), 2(b)	1(a), 2(b)	-	-
Electrodynamics Electrical Engineering	·· 6		=	2	t(b) opt.	-	=
Geodesy. Geology and Mineralogy * *	" 3		2	-		-	=
Geology and Mineralogy * *	" 11		-	-	-	3	3
Heating and Sanitation Hydraulics	· · 1		2	2	2	2	-
Machine Design	" 7		-	I	I	-	-
Modelling Municipal Engineering	. 3		-	-	-	-	-
Metallurgy	" 8		I	=	=	1 2	2
Mining Railroad Engineering	** 8		1	•	-	Opt.	-
Theory of Structures	" 2 " 2	4	I A	1 =	1	_	112
I nermodynamics	" 10		2	2	2	2	-
Drawing and Designing Electrical Engineering Lab	a VIV	10	8	3	9	8	-
Geodetic Laboratory			3	3 12 —	2 0   30	=	=
Invaraulic Laboratory	·· 7 ·· 8		3	3	3	3	
Mechanical Laboratory Mining and Metallurgical Lab	4 10 4 10		-	3	6	6	-
Museum Work	3 XV. 13		=	=	-	6	-
Museum Work			Opt.	6	Opt.	Opt.	Opt.
Testing Laboratory Thermodynamic Laboratory	" 18	6	0	=	1 7	3	=
Shopwork	§ XVI.	4	3	4	7	-	-
(a) First term. (b) Second Term.							

(a) First term. (b) Second Term. (c) First half of First Term. (d) Second half of First Term. Lesides work in the Museum. \*\*Also Saturday excursions, and Museum and Petrographical work.

91

# § III. MATRICULATION AND ADMISSION.

92

All Students are recommended to take one or two years of the Arts Course. They are then admitted into the Faculty of Applied Science without examination. (See § IV. iv.)

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

Candidates for examination must present themselves on the first day of examination, and all Students, excepting those encoded in surveying field work, must attend punctually at

on Friday, September 23rd, when the lectures will begin. aminations for entrance will be held in 1898 (1) on May

. and following days, in McGill College and at local centres, and (2) on Thursday, September 15, and following days, in McGill College only.

Any Head Master or other person desiring a local examination in June must, before May 10th, submit the name of some suitable person, preferably a University graduate, who is willing to act as Deputy Examiner, *i.e.*, receive the questions, hold the examinations, and forward the answers to Montreal. Further particulars relating to this examination will be given on application to the Secretary of the University.

# SUBJECTS OF EXAMINATION.

Mathematics—Arithmetic.—All the ordinary rules, including square root and a knowledge of the Metric System. Algebra—Elementary rules, involution, evolution, fractions, indices, surds, simple and quadratic equations of one or more unknown quantities. Geometry —Euclid, Bks. I. II., III., IV. and VI., with definitions of Bk. V., and easy deductions. Trigonometry—As in Hamblin Smith, pp. I-IOO, omitting Ch. XI.

English.—Writing from Dictation. Grammar—A paper on English Grammar, including Analysis. The candidate will be expected to show a good knowledge of Accidence, as treated in any grammar prepared for the higher forms of schools. A similar statement applies to a Mason will Press series presented in *History*.—Ca ing events. schools may Outline of *position*.—Ca at the time ed. Deighto (Macmillan)

[Note---C jects except the remaind

French.—( French into similar exer without gro be given for

German. amount) to: German as mar (or equ

Greek.-X:

Latin.—Cz Book I.; L In both ( position (se prose text),

At the Se in Greek or application 1 before the d

Candidates passed in th

Candidates of Quebec, o on entrance, tation, Engl

# SION.

or two years to the Faculty § IV. iv.) nitted to such their previous ake the draw-

nselves on the cepting those punctually at ires will begin. 98 (1) on May and at local and following

a local examt the name of graduate, who eive the queste answers to s examination the University.

including square ra—Elementary rds, simple and tities. Geometry ions of Bk. V., 1 Smith, pp. 1-

paper on Engvill be expected in any grammar milar statement 93

applies to grammatical Analysis in which the nomenclature used by Mason will be preferred. West's Elements of English Grammar (Pitt Press series), is recommended as a text-book. Analysis must be presented in tabular form, as on pages 208-211 of West.. English History.—Candidates will be required to give the chief details of leading events. While any text-book written for the upper forms of schools may be used in preparation for the examination, Gardiner's Outline of English History (Longmans) is recommended. Composition.—Candidates will write a short essay on a subject given at the time of the examination. Literature.—SHAKSPERE's Richard II., ed. Deighton (Macmillan), and Scott's Lady of the Lake, ed. Stuart (Macmillan).

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

#### Any one of the following Languages.

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

German.—The whole of JOYNES' German Reader (or equivalent amount) together with German Accidence and translation into German as in the First part of Vandersmissen's German Grammar (or equivalent amount).

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

Latin.-CÆSAR, Bell. Gall., Books I. and II.; and Virgil, Aeneid, Book I.; Latin Grammar.

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

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

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

Candidates who have passed Academy Grade II. of the Province of Quebec, or the Preliminary Subjects of the Associate in Arts, will, on entrance, be exempt from examination in English Grammar, Dictation, English History and Arithmetic. Candidates who fail in one or more subjects at the June examination, or who have taken part only of the examination and present themselves again in the following September, will be exempted from examination in those subjects only in which the Examiners may have reported them as specially qualified.

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

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

In the case of Candidates from Ontario, Second Class non-professional certificates will be accepted *pro tanto* in this Examination.

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

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

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

## § IV. EXAMINATIONS.

I. FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

# I. FACULTY EXAMINATIONS.

There will be a Christmas examination for Students of the First Year in all the subjects, and for Students of the other years in such subjects as shall be determined by the Faculty. A sessional examination in all the subjects will be held at the end of the First and Second Years.

# 2. UNIVERSITY EXAMINATIONS.

(a) There will be a Primary examination at the end of the Third Year in all the subjects of that year. Candidates must pass this Examination before entering the Final Year. (b) The Bachelor ( in all the Successf

II. FO

Candida least three tificates of fide work i Branch of They mu the genera papers will branch up preceding Candida together w culty will satisfactory also § V.)

III. FC

Candidat least three been employers, and ory and protection they may under the

IV. SPECIAL OF BA

The Reg so as to en B.A.Sc. in June examinon and present exempted from iners may have

) may present e Junior Matri-

n accepted by ty, in so far as of the Faculty, valent to, those

Class non-pro-Examination. ce in Freehand n, may, on the this subject in

iving already gnized School ivalent stand-

owed to take wing, by ex-

D SCIENCE.

tudents of the s of the other y the Faculty. ill be held at

the end of the indidates must ial Year.

(b) There will be a Final examination for the degree of Bachelor of Applied Science at the end of the Fourth Year in all the subjects of that year.

Successful Students will be arranged in order of merit.

II. FOR THE DEGREE OF MASTER OF ENGINEERING.

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

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

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

III. FOR THE DEGREE OF MASTER OF APPLIED SCIENCE.

Candidates must be Bachelors of Applied Science of at least three years' standing, must present certificates of having been employed during that time in some branch of scientific work, and must pass with credit an examination on the theory and practice of those branches of scientific work in which they may have been engaged. The other conditions as under the last heading. (See also § V.)

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

The Regulations heretofore in force have been modified so as to enable Students to take the two degrees of B.A. and B.A.Sc. in six years, as follows :— I. Students who have passed the Intermediate in Arts may enter the First Year of the Applied Science Course, and will be exempted from the modern languages which they have already taken in Arts.

2. The remaining subjects required for the B.A. degree may be spread over three years instead of two.

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

4. The Faculty of Arts will accept the Laboratory Work in Physics in lieu of the Natural Science of the Arts Course.

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

# V. GRADUATE COURSES.

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

Graduates may also take an advanced course in the branch in which they have received their degree. On passing an examination at the end of such advanced course, the Master's degree will be conferred without further examination, on presentation at the end of one additional year of a satisfactory thesis on approved work.

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

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

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

In the de co-efficients SXIV., 7.) In the de The elasti and § XIV In Mining and ore dres the new labo The efficient § XIII., 2, a The effici steam and e The efficie refrigerators The efficie power absorl (See § XIII The efficie cluding inve unguents. ( The efficie investigation fuels. (See On the eff The flow weirs. (See In geodesy In Street apparatus.

In Physics

equipped and

Courses and

pure Physics

shops for the

such investig

te in Arts may Course, and will hich they have

ie B.A. degree

hematical Phythe Mathema-

boratory Work ne Arts Course. iven along with those who, preies proper, have and have duly but who do not

in one of the cience may grattending one or

se in the branch On passing an rse, the Master's examination, on of a satisfactory

ake a Graduate ide for advanced

lesign. (See §

II., 8, 9 and 11,

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

In the determination of gravity. (See § XIV., 7.)

The elasticity and strength of materials. (See § XIII., 2, and § XIV., 17.)

In Mining and Metallurgy—Advanced study in metallurgy and ore dressing can be carried on with great advantage in the new laboratories. (See § XIII., 8, and XIV., 9, 10 and 13.) The efficiency of pumps and hydraulic motors. (See § XIII., 2, and § XIV., 8.)

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

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

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

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

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

On the efficiency of dynamos and electric motors.

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

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

In Street Railway design and theory, and in alternating apparatus.

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

.....

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

# § VI. ATTENDANCE AND CONDUCT.

I. Absence from any number of lectures can only be excused by necessity or duty, of which proof must be given, when called for, to the Faculty. The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a session, shall in each case be determined by the Faculty. The Professor may, at his discretion, refuse credit for attendance, on the ground of lateness, inattention or disorderly conduct.

2. Any student who does not report his residence on or before November 1st in each year is liable to a fine of one dollar. All subsequent changes of address must be immediately reported to the Dean.

3. Every Student is required to deposit with the Secretary of the University the sum of \$5.00 as caution money for damage done to the furniture, machinery or other apparatus. In the case of improper or disorderly conduct in the University buildings or grounds, the Faculty may impose such penalty as may be deemed advisable, and may also inflict fines, to be deducted, if the Faculty thinks fit, from the caution money.

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

#### § VII. LIBRARY.

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

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

1. During the College Session the University Library is open daily (except on Sundays and general public holidays, from 9 a.m. till 5 p.m.; and the Reading Rooms from 9 am. till 6 p.m., and also from 8 till 10 p.m. On Saturdays, both Library and Reading Rooms close at 5 p.m. During vacations, both Library and Reading Rooms close at 5 p.m., and on Saturdays at 1 p.m.

2. Students in the Faculty of Applied Science may borrow books

on depositi deduction ( on the cert uninjured.

3. Gradua are entitled conditions Library fee

4. No bo book belon a fine of 5c may renew curring fine use of the

5. Before have obtain All perso the books a see that the loss of bool and of the any book 1 Any person shall be exc use thereof 6. Silence

I. The M1 except when or Committ 2. Student application.

3. Student to the lectur

4. Any stu ing the sam session. te Courses will tics required in

# UCT.

ly be excused by hen called for, to from necessity or sion, shall in each may, at his discref lateness, inatten-

nce on or before e dollar. All subr reported to the

e Secretary of the r damage done to e case of improper s or grounds, the ned advisable, and ty thinks fit, from

be traced, a pro ents more directly

Library is open idays, from 9 a.m. ill 6 p.m., and also nd Reading Rooms nd Reading Rooms

may borrow books

on depositing the sum of \$5 with the Bursar, which deposit, after the deduction of any fines due, will be repaid at the end of the session on the certificate of the Librarian that the books have been returned uninjured.

3. Graduates in any of the Faculties, on making a deposit of \$5, are entitled to the use of the Library, subject to the same rules and conditions as Students; but they are not required to pay the annual Library fee.

4. No borrower other than a Professor or Lecturer may keep any book belonging to the Library longer than two weeks, on penalty of a fine of 5cts a volume for each day of detention, but any borrower may renew the loan of a book for fitting reasons. A borrower incurring fines beyond the sum total of \$1 shall be debarred from the use of the Library until they have been paid.

5. Before leaving the Library, readers must return the books they have obtained, to the attendant at the Delivery Desk.

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

6. Silence must be strictly observed in the Library.

## **VIII. PETER REDPATH MUSEUM.**

I. The Museum will open every lawful day from 9 a.m. till 5 p.m., except when closed for any special reason by order of the Principal or Committee.

2. Students can obtain tickets of admission from the Principal on application.

3. Students are to enter by the front door only, except when going to the lectures.

4. Any student wilfully defacing or injuring specimens, or removing the same, will be excluded from access to the Museum for the session.

# § IX. FEES.

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

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

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

Partial Students will be admitted to the Professional Classes in any year on payment of the ordinary fees for that year; or they may attend the lectures on any subject on payment of a special fee, which, unless otherwise specified, is \$12.50 for each term, or \$25.00 for the whole session.

SPECIAL LABORATORY FEES.—Partial Students desirous of taking Courses in any of the several Laboratories will be required to pay a fee of \$25.00 for each Course.

SPECIAL WORKSHOP FEES.—Partial Students desirous of taking the worksho; courses will be required to pay the following fees, which i clude cost of materials and use of all tools:—

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

1				Sep	tember	to April :	\$25	00
2	days, or	14	"	"	""	66	45	00
	days, or		"	"	""	66	60	00
-	days, or		""	"	""	"	70	00
			Exa	mination, a	at date	fixed by		.1
						Faculty	2	00
	**	"	if	for any spe	ecial rea	ason grante	ed	

at any other date than that fixed by the Faculty 5 00 Fee for a certificate of standing 2 00

The fees must be paid to the Secretary, and the receipts shown to the Dean, within fourteen days after the commencement of attendance in each Session. In case of default, the Student's name will be removed from the College books, and can be re and on pa The fee this Facu amount. Fee for OF APPLII If for ai

# § X. MEI 1. The

granted in

founded b Science, ir in the yea: A BRITI are open fo in each of commende taking the 2. THE of His H Aberdeen.) The Me conditions 3. SUMM are offered To the s Association To the prize of \$2 To the s prize of \$2 Two Pri Association

# 100

00 per annum, Library, Matri-5, Gymnasium, 2.

he \$155.00 fee) ious to the ex-

5.00.

essional Classes for that year ; ect on payment id, is \$12.50 for

ents desirous of pries will be re-

nts desirous of to pay the foland use of all

ind the receipts r the commenceie of default, the illege books, and can be replaced thereon only by permission of the Faculty, and on payment of a fine of \$2.

The fee for a Graduate Course is \$150.00. Graduates of this Faculty will be required to pay only one-half of this amount.

Fee for the Degree of MASTER OF ENGINEERING OF MASTER OF APPLIED SCIENCE, \$10.00.

If for any special reason the Master or Bachelor degree be granted *in absentiâ*, the fee will be \$25.00.

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

I. THE BRITISH ASSOCIATION MEDALS AND EXHIBITION, founded by the British Association for the Advancement of Science, in commemoration of the meeting held in Montreal in the year 1884.

A BRITISH ASSOCIATION MEDAL AND PRIZE IN BOOKS are open for competition to students of the Graduating Class in each of the six Departments of the Faculty, and, if recommended by the examiners, will be awarded to the student taking the highest position in the final examinations.

2. THE GOVERNOR GENERAL'S SILVER MEDAL (the gift of His Excellency The Right Honourable the Earl of Aberdeen.)

The Medal will be awarded in the Graduating Class. The conditions will be specified at the opening of the Session.

3. SUMMER WORK. (See § XI., 1.) The following prizes are offered for the best summer Theses:—

To the students of the Civil Engineering Course a British Association prize of \$25.

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

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

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

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

The following Exhibitions and Prizes will be open for competition at the beginning of the Session. Students are required to notify the Dean of their intention to compete, at least one week before the commencement of the examination.

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

5. Two prizes of \$25.00 and \$15.00, to Students entering the Third Year, the subjects of Examination being:—The Mathematics of the Second Year Course.

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

(a) An Essay, in the form of a character sketch, on Brunel, or Davy or Maisonneuve. On the day of the Examination, the candidates will be required to write an essay on one of these characters, three hours being allowed for this. (b) Mathematics of the First Year Course. (c) Descriptive Geometry of First Year Course.

7. A Prize of \$10.00, presented by the McGill University Graduates' Society of British Columbia, to Students entering the Third Year, the subject of Examination being the Descriptive Geometry of the Second Year Course.

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

Two 9. W. A. Car the Mining examination 10. Thr by A. C. H undergradu Drawing o II. A s Practical ( Sterry Hu Chemical ( 12. Priz dents as ta Examinatic 13. Hoi for advanc 14. SCIE COMMISSIO ships of £1 rare instan the Report (such as P. which is sp object is, n enable Stu the view o industries ( A nomin was placed versity, and It is ope in the Fact any Unive Commissio This Exhil Evans, P., 18

Toronto Uniawarded to the heses on some vill be given to

e a prize of \$25 .C.A., President

e open for comitudents are reupete, at least one ion.

ish Association ourth Year, the s and Theory of

udents entering on being:-The

ed by the Caletion of the Cenizes of \$25.00 Year, the sub-

ketch, on Brunel, Examination, the 1e of these characlathematics of the First Year Course. cGill University tudents entering 1 being the Deirse.

nted by J. M. g the Third Year,

1

9. Two Prizes, one of \$100, the other of \$50, presented by W. A. Carlyle, Esq., Ma.E., may be awarded to students of the Mining Course taking the highest positions in the degree examinations of 1899.

10. Three prizes, of \$12.00, \$8.00 and \$5.00, presented by A. C. Hutchison, Esq., R.C.A., will be awarded to the three undergraduates taking the highest standing in the Freehand Drawing of the First Year.

11. A scholarship of the value of \$100, for proficiency in Practical Chemistry, on the endowment of the late Dr. T. Sterry Hunt, to students entering the Second Year of the Chemical Course. For further conditions apply to the Dean.

12. Prizes or certificates of merit are given to such Students as take the highest place in the Sessional and Degree Examinations.

13. Honours.—On graduation, Honours will be awarded for advanced work in Professional subjects.

14. SCIENCE SCHOLARSHIPS GRANTED BY HER MAJESTY'S COMMISSION FOR THE EXHIBITION OF 1851.—The Scholarships of £150 sterling a year in value are tenable for two or, in rare instances, three years. They are limited, according to the Report of the Commission, "to those branches of Science (such as Physics, Mechanics and Chemistry) the extension of which is specially important for our national industries." Their object is, not to facilitate ordinary collegiate studies, but "to enable Students to continue the prosecution of Science with the view of aiding in its advance or in its application to the industries of the country."

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

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

This Exhibition has been awarded as follows :--Evans, P., 1891. Macphail, J. A., 1893. King Gill, J. L. W., 1897.

King, R. O., 1895-

15. The Mason prize of \$50.00 in Electrical Engineering, given by Dr. A. F. Mason for original investigation in the practical application of Electricity.

16. WORKSHOP PRIZES.—A prize of \$20.00, presented by C. J. Fleet, B.A., B.C.L., for bench and lathe work in the woodworking department, open to Students of not more than two terms' standing in workshop practice.

17. A prize of \$20, in books, presented by H. W. Umney, Esq., will be awarded to the student, of the Graduating Class, who obtains the highest standing in the subject of Hydraulics (theoretical and practical).

# § XI. SPECIAL PROVISIONS.

I. SUMMER WORK.—During the summer vacation following the close of each year, all students entering the Third and Fourth Years are required to prepare a thesis on a subject specified by the Faculty. Any student may substitute for the specified subject, a report on some practical work in course of construction. The marks given for these theses will be added to the results of the sessional examinations. The theses must be handed in to the Dean on or before the 1st October.

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

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

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

5. Undergraduates in Arts of the Second and Third Years, or Graduates of any University, entering the Faculty of Applied Science, may, at the discretion of the Professors, be exempted from such lectures in that Faculty as they have previously attended as Students in Arts.

In additic courses of s al Engineering, stigation in the

o, presented by he work in the f not more than

H. W. Umney, aduating Class, t of Hydraulics

vacation followg the Third and sis on a subject ubstitute for the work in course theses will be ions. The theses the 1st October. vil and Mining nd Third Years, se entering the e at the Univerrk in Surveying

the professional .)

ermission of the ulty of Arts.

and Third Years, Faculty of Aprofessors, be exs they have pre6. Students who have failed in a subject in the Christmas or Sessional Examinations may regain their standing by passing a supplemental examination at a time appointed by the Faculty. Unless such supplemental examination is passed, Students will not be allowed to proceed to any subsequent examination in the subject. A second supplemental examination will not be granted unless under exceptional circumstances, to be investigated in each case by the Faculty.

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

8. Credit will be given in the Sessional Examinations for work done during the session in certain of the subjects which will be specified at the commencement of the first term.

9. Students who fail to obtain their Session, and who in consequence repeat a Year, will not be exempted from examination in any of those subjects in which they may have previously passed, except by the express permission of the Faculty. Application for such exemption must be made at the commencement of the Session.

10. Partial Students are not eligible for prizes.

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

12. The headquarters of the Canadian Society of Civil Engineers are located in Montreal. The Society holds fortnightly meetings, at which papers upon practical current engineering subjects are read and discussed. Undergraduates joining the Society as Students may take part in these meetings, and acquire knowledge of the utmost importance in relation to the practical part of the profession.

13. Caps and gowns, also the overalls for the workshops, may be obtained from the janitor of the Engineering Building.

# § XII. SPECIAL LECTURES.

In addition to the ordinary work of the Faculty, the following courses of special lectures were delivered during session 1897-98 :--

J. A. L. WADDELL, Ma.E., M. Am. Soc. C.E., a series of lectures on "Bridge Designing."

IRA G. HEDRICK, B. A. Sc., M. Am. Soc. C.E., a series of lectures on "Bridge Calculations."

H. IRWIN, B.Sc., M. Can. Soc. C.E., lectures on "The Land Systems of the Province of Quebec."

Under the auspices of the Applied Science Graduates' Society:-

G. H. FROST, C.E., on "Sewage Disposal and Purification."

ROBT. BELL, M.D., F.R.S., on "Hudson Bay."

H. T. BARNES, Ma.E., on "Formation of Frasil Ice."

Also, under the auspices of the McGill Mining Society:-

J. E. HARDMAN, B.Sc., on "The Duties of the Young Mining Engineer."

PEERS DAVIDSON, M.A., B.C.L., two lectures on "Mining Law."

#### § XIII. COURSES OF LECTURES.

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

## I. ARCHITECTURE.

Professor :---S. Henbest Capper, M.A. Lecturer :---H. F. Armstrong.

The professional work of the Architectural Course begins in the Second Year, for which the First or preliminary year is preparatory, especially in the departments of Mathematics and Drawing (Freehand, Lettering, and Projections).

The work of the Second Year is of a general character, and is planned to combine to some extent the work of the Architectural and of the Civil Engineering Students, for whom the lectures on the History of Architecture and on Building Construction are compulsory.

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

In the Se sumé of Ar times. Th dealt with a tional and Ancient Egy tian and R Revived Cla In the T ranged in c naissance an and detailed siastical, Do paring the work in the blems in th historic evol The const tectural Eng In the Se tectural and struction an Testing Lat The Theor ing and Sa Ventilation, Specificati Practice, are For the in Mathema Geometry. also studied In Drawin hand drawin tectural drai during the clay is inclu Problems Architectura and are con the Element

cornices, m

ornament, c

eries of lectures eries of lectures

The Land Sys-

ce."

ciety:-

ung Mining En-

Mining Law."

# S.

odifications dur-

.A.

se begins in the ar is preparatory, Drawing (Free-

character, and is Architectural and lectures on the ruction are com-

more specialized ifth or Graduate y in design. 107

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

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

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

In the Second Year a general course, common to all Architectural and Engineering Students, is given upon Building Construction and Materials, which is supplemented and continued in the Testing Laboratories, where practical experiments are conducted.

The Theory of Structures is dealt with, as also Municipal Engineering and Sanitation and Hygiene; special courses on Heating and Ventilation, and on Electrical Installation are also included.

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

For the scientific requirements of the profession the courses in Mathematics are very fully developed and include Descriptive Geometry, Shades and Shadows and Perspective. Surveying is also studied in the Second and Third Years.

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

Problems in Architectural Design form the basis of work in the Architectural Drawing Class from the earliest practical period, and are combined with the study of the Classical Orders and with the Elements of Architecture (doors, windows, arches and arcades, cornices, mouldings, etc.), upon which, as well as upon historical ornament, courses of lectures are given. In the Fourth Year a course of lectures is included upon General Art History, so as to place the architectural student in touch not only with the decorative details of the different architectural styles, but also with the contemporary forms in other branches of art, especially the decorative arts employed in building.

#### Architectural Equipment.

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

#### Women Students.

The Architectural and Modelling Classes are open to Women Students. Information as to admission may be obtained on application to the Dean of the Faculty or to the Professor of Architecture.

# 2. CIVIL ENGINEERING AND APPLIED MECHANICS.

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

Assistant Professors :-  $\left\{ \begin{array}{c} R. S. LEA, MA.E. \\ \hline & \end{array} \right\}$  To be appointed.

## THEORY OF STRUCTURES.

The lectures on this subject embrace :--

(a) The analytical and graphical determination of the stresses in the several members of framed structures, both simple and complex, as, e.g., cranes, roof and bridge trusses, piers, etc.

(b) The methods of ascertaining and representing the shearing forces and bending moments to which the members of a structure are subjected.

(c) A study of the strength, stiffness and resistance of materials, including a statement of the principles relating to work, inertia, energy and entropy, together with a discussion of the nature and effect of the different kinds of stress and the resistance offered by a material to deformation and to blows.

(d) The design and proper proportioning of beams, pillars, shafts, roofs, bridge piers and trusses, arches, arched ribs, masonry dams, foundations, earth works and retaining walls.

Graphics.-phical analy in the grap possible for methods of lations.

TEXT-BOO Materials.

The Labo

FOURTH Y engage in a construction material in

THIRD YI include the f (a) The ta Timber. Cc of the same Tenşile Test specimens fr (b) The te Mild Steel, Transverse 7 (c) The test

(d) The te testing of ce dian Society

(a) Timbe
tives, life, st
(b) Iron a
uses, tests, e
(c) Brick,
strength, tes
(d) Stone,
strength, har

led upon General ent in touch not chitectural styles, branches of art,

entative collection ulpture; of photorn; a large collecy for architectural

open to Women stained on applicaor of Architecture.

#### MECHANICS.

Scott Professor of anics).

ointed.

of the stresses in mple and complex,

nting the shearing bers of a structure

stance of materials, to work, inertia, of the nature and stance offered by a

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

TEXT-BOOK.—Bovey's Theory of Structures and Strength of Materials.

The Laboratory Work (see also § XIV.) is as follows :-

FOURTH YEAR.—During the Fourth Year, students are expected to engage in a research upon the physical properties of a material of construction, with special reference to the form and position of such material in the structure.

THIRD YEAR.—During the Third Year the Laboratory work will include the following :—

(a) The testing of Timber.—Transverse Tests on Hard and Soft Timber. Compressive Tests on specimens of various lengths cut out of the same timbers. Bearing Tests on specimens from same timbers. Tensile Tests on specimens from same timbers. Shearing Tests on specimens from same timbers.

(b) The testing of Iron and Steel.—Tensile Tests of Wrought Iron, Mild Steel, Cast Steel and Cast Iron. Compressive tests of ditto. Transverse Tests of ditto.

(c) The testing of Brick and Stone.

(d) The testing of Concrete and Cement.—A complete course in the testing of cements according to the Standard Methods of the Canadian Society of Civil Engineers.

#### Materials of Construction.

(a) Timber.—Growth, characteristics, diseases, enemies, preservatives, life, strength, tests, etc.

(b) Iron and Steel.—Manufacture, characteristics, strength, special uses, tests, etc.

(c) Brick, Terra Cotta.—Manufacture, chemistry of clays, uses, strength, tests, etc.

(d) Stone, Slate, etc.—Characteristics, weathering qualities, strength, hardness, uses, tests, etc.

# 109

(e) Cement, Lime, Mortars, Concretes, etc.—Chemistry of cements, manufacture, uses, strength, tests, etc.

#### Elements of Building Construction.

(a) Foundations on Land.—Bearing power of soils, safe loads, testing, drainage, etc.

(1) Piling, bearing power, formulae and data, cost.

(2) Pedestals and footings of concrete and steel, timber grillages, etc.

(3) Methods of timbering and excavation in sinking, pumping, Poehle, air lift, etc.

(b) Foundations in Water or Deep Foundations.—Preparing foundations by piling, dredging, etc., coffer dams, open caissons, pneumatic caissons and piles, open dredging, Poetsch freezing process, hydraulic shields, blasting, explosives.

(c) Foundation Courses.—Monolithic concrete, concrete and steel, stone, timber, broken stone, drainage, equal distribution of loads to prevent unequal settlement.

(d) Walls and Buildings.-(1) Brick.-masonry, mortar, joints, arches, centering, strength, specifications, cost.

(2) Stone.—Bonding, laying, classes of masonry, mortar, joints, methods and nomenclature of cutting, tooling, strength, specifications, cost.

(3) Concrete Artificial stone, terra cotta, enamelled brick.

(4) Timber.-Simple joints, framing for buildings and structures.

(5) Steel Columns.—Girders, flooring, rivetting, fire-proofing of walls and ceilings.

(e) Retaining Walls.—Abutments, arches, culverts, engine foundations of brick, stone, concrete.

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

HYDRAULICS. (For Laboratory Work, see § XIV.)

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

The Stue equilibrium pieces, subr pipes and a free jet c discussed, efficiency c Pressure E

TEXT-BO

The labc ing :---

(a) Flow t dis

(b) Flow o cha me

(c) Flow the flow

(d) Impact.

(e) Motors, oth oth

The lectu including t Water Wh Presses, W chinery, an

The lectu

(a) A br the great ( nistry of cements,

soils, safe loads,

**:**.

timber grillages,

inking, pumping,

-Preparing foundussons, pneumatic process, hydrau-

oncrete and steel, nution of loads to mortar, joints,

y, mortar, joints, gth, specifications,

d brick.

and structures.

fire-proofing of

ts. engine found-

ern slides, models

§ XIV.)

etically and with

111

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

TEXT-BOOK.—Bovey's Hydraulics.

The laboratory work (see also § XIV.) will include the following :--

- (a) Flow through orifices.—The determination of the coefficients of discharge, velocity, etc.
- (b) Flow over weirs.—The determination of the coefficient of discharge with and without side contraction. Also the measurement of the section of the stream.
- (c) Flow through pipes.—The determination of the effect upon the flow, of angles, bends and sudden changes in section.
- (d) Impact.-The determination of the coefficient of impact.
- (e) Motors, etc.—The determination of the efficiency of Pelton and other wheels, of vortex and other turbines, of centrifugal and other pumps, etc.

#### HYDRAULIC MACHINERY.

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

#### TRANSPORTATION.

#### On Common Roads, Railways and Canals.

The lectures will embrace :--

(a) A brief historical review of the inception and carrying out of the great Canadian systems of transportation.

(b) A resumé of the laws regarding transportation and of the effect of government influences upon such projects.

(c) Common roads.—Provision made for them in settling up land; methods and costs of construction and maintenance; the traffic for which they are suited, and the cost of hauling it over different surfaces.

(d) Canals and rivers.—The Canadian canal system, the methods and costs of construction and maintenance, the traffic it is designed to carry, and the cost of transportation.

(e) Steam railroads.—The reasons for building of various Canadian roads, the position of the Government with regard to them, the traffic they serve and the cost of handling it, the details of location and the influence of physical features and trade possibilities upon it, the cost and design of construction, the duties of the engineer upon such work, the appliances at present in use for safe and speedy handling of trains!

(f) Electric roads.—The traffic which they now carry, their location and construction, the reasons for their rapid extention, and their probable future.

(g) Street pavements and sidewalks.—The materials used in their construction, and the merits of each system, their cost and their benefit to the community.

The questions of the development and applying of motive power and the various appliances, mechanical and electrical, now in use for these special purposes are taken up in special descriptive lectures in the mechanical and electrical departments.

#### MUNICIPAL ENGINEERING.

The lectures on this subject will embrace :--

(a) Water Supply.—The quantity and quality of water; systems and sources of supply; rainfall and evaporation; storage as related to the supplying capacity of water-sheds; natural and artificial purification; distribution, including the location of mains, hydrants, stopvalves, etc., combined or separate fire and domestic systems; details of construction, including dams, reservoirs, pumps, etc., preliminary surveys, estimates of cost, statistics, etc.

(b) Sewerage of Cities and Towns.—The various systems for the

removal of se ate disposal; and intercep materials use

This cours practical trai the field wor The course i

SECOND Y adjustment, 1 ground surve

THIRD YE roads, simple of quantities. scriptions for vinces. Top surveying. I ination of sp maps.

In the fiel quired to car and compass (5) A plane i with determ staking out i channel, incluillustrating u All studen them prepare The large the various i gation during

FOURTH Y latitude, long and of the effect

ettling up land; ; the traffic for er different sur-

the methods and is designed to

arious Canadian 1 to them, the tails of location ibilities upon it, engineer upon safe and speedy

rry, their locantion, and their

s used in their and their bene-

f motive power now in use for ptive lectures in

vater ; systems rage as related 1 artificial purihydrants, stopystems ; details tc., preliminary

systems for the

I13

removal of sewage; special methods in use for its treatment and ultimate disposal; the proportioning and construction of main branch and intercepting sewers; manholes, flush-tanks, catch-basins, etc.; materials used in construction; estimates of cost.

# 3. SURVEYING AND GEODESY.

Professor :---C. H. McLeod, Ma.E. Lecturer :---J. G. G. KERRY, Ma.E.

This course is designed to give the student a theoretical and practical training in the methods of land and Geodetic Surveying, in the field work of engineering operations and in Practical Astronomy. The course is divided as follows :---

SECOND YEAR.—Chain and angular surveying; the construction, adjustment, use and limitations of the various instruments. Underground surveying. Topography, levelling, contour surveying.

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

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

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

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

FOURTH YEAR.—Practical Astronomy :—the determination of time, latitude, longtitude and azimuth. Geodesy :—figure of the earth ; measurements of base lines and triangulation systems; adjustments and reductions of observations.

The field work of the Fourth Year consists in the measurement of a base-line, in triangulations and precision levelling.

The practical work in Astronomy (for equipment of observatory see XIV, Art. 7) comprises : (1) Comparisons of clocks and chronometers. (2) Determination of meridian by solar attachment. (3) Meridian, latitude and time by solar and stellar observations with the Engineer's transit. (4) Latitude and time by sextant. (5) Time by astronomical transit. (6) Latitude by zenith telescope. (7) Latitude by transit in prime vertical. Field work required of all students of the Second and Third Years in the courses of Architecture, Civil and Mining, and of the Fourth Year in the Civil course. The work will begin on the first of September and continue through the entire month. The surveys will be made in a place some distance from Montreal. Suitable provision for board and lodging will be arranged for at the place selected.

Exercises in the Geodetic laboratory (for equipment see § XIV, Art. 7) carried out in this year include the following:—(1) Measurement of magnifying power. (2) Determination of vernier errors. (3) Errors of graduation. (4) Measurement of eccentricity of circles. (5) Determination of errors of run of theodolite microscopes. (6) Investigation of the errors of a standard bar. (7) Graduating scales with the dividing engine, and comparison thereof on the comparator. (8) Investigation of the errors of circles on the circular comparator. (9) Determination of the constants of steel tapes. (10) Investigation of the graduation errors of steel tapes on the fifty-foot comparator. (11) Investigation of the errors of aneroid barometers. (12) Investigation of the errors of level tubes, and determination of their scale values. (13) Measurement of the force of gravity with a reversible pendulum. (14) Measurements of magnetic dip, declination and horizcntal force.

The equipment of the surveying department comprises the following, in addition to the apparatus of the Observatory and Geodetic Laboratory:—Eleven transit theodolites by various makers, with solar and mining attachments. A photo-theodolite. 8-in. aet-azimuth. Seven dumpy and three wye levels. Hand levels and clinometers. Two precision levels. Five surveyors' compasses. Three prismatic compasses. Pocket compasses. One solar compass. Three marine sextants. Artificial horizons. Four box sextants. Two reflecting circles. Two large plane tables. Four traverse plane tables. Four current meters. Rochon micrometer. Double image micrometer. Field-glasses. Two heliotropes. Several barometers. 300 ft. and 500 ft. steel steel bands Levelling r Station poin pliances.

Examinat of Applied S Surveying m for the prothe profession

TEXT BOO tice of Surv and Spheric Surveying 1

This course plane, so the discusses the various prote with the print taught are in It is the aim power of me in the use of ETRET Vie

FIRST YE. cluding penjection.

SECOND Y of plane an Intersections shadows. Ma shadows.

5. F

In the  $F_r$ eye. so that s ems; adjustments

measurement of a

nt of observatory locks and chronoattachment. (3) ervations with the int. (5) Time by ope. (7) Latitude d of all students Architecture, Civil ourse. The work hrough the entire me distance from 5 will be arranged

ment see § XIV, ng:-(1) Measureof vernier errors. ntricity of circles. microscopes. (6) Graduating scales 1 the comparator. cular comparator. (10) Investigation -foot comparator. ters. (12) Investiion of their scale with a reversible declination and

prises the followory and Geodetic us makers, with 8-in. aet-azimuth. and clinometers. Three prismatic s. Three marine Two reflecting ane tables. Four nage micrometer. ters. 300 ft. and 115

500 ft. steel tapes suitable for base measurements. Steel chains and steel bands. Linen and metallic tapes. Sounding lines. Pickets. Levelling rods. Micrometer targets. Slope rods. Pedometers. Station pointer, pantographs, planimeter, slide rules and minor appliances.

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

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

#### 4. DESCRIPTIVE GEOMETRY.

# Lecturers :-- C. H. McLeod, Ma.E. H. F. Armstrong.

This course deals with the methods of representing objects on one plane, so that their true dimensions may be accurately scaled. It discusses the methods employed in the graphical solution of the various problems arising in engineering design, and deals generally. with the principles underlying all constructive drawing. The methods taught are in all cases illustrated by applications to practical problems. It is the aim of the work to develop the imagination in respect to the power of mentally picturing unseen objects, and incidentally precision in the use of the drawing instruments is attained.

FIRST YEAR.—Geometrical drawing, orthographic projections, including penetrations, developments, sections, etc. Isometric projection.

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

## 5. FREEHAND DRAWING, LETTERING, 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 drawing in light and shade or as preparatory dimensioned sketches from which to make scale drawings.

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

## 6. ELECTRICAL ENGINEERING.

Professor: \_\_\_\_\_ (McDonald Professor of Electrical Engineering).

#### Lecturer :--- L. HERDT, Ma.E., E.E.

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

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

Here they will make experiments on electrical machinery of all kinds: series, shunt, and compound dynamos; motors, motorgenerators, alternators, etc. They will carry out tests of dynamos, transformers and motors under practical working conditions, not only on the apparatus in the dynamo room but also throughout the building, where there are several motors driving lathes, fans, etc., besides an electric elevator and an electric drill. In addition to these advantages, the Faculty possesses a typical lighting station of more than three come fam: switchboa: The foll

THIRD Electrical employed The Stude how to us ture, 2 he Practical 1 netic prin worked ot Some ch

Fourth

(d) I he and princi ments befe as in (d), dynamo r bearing of in class. in the dr

whole cla descriptive from the e design of ture, adva ruary, lec insulation. apparatus

The cou ing subjec

The Ind in terms (

actions; it:

Element

and shade or as make scale draw-

ound writing, and o, tinting, tracing, ided.

G.

essor of Electrical

Ŧ.

udent to the prinleering. But little nical details, which lere he is strongly methods and the that the Student t of the lectures is t-books, but rather is problems arising

tories is not com-Students will have ty in the Physical periments on Elecg methods and ineir attention more is term's work is e Students will, in ion of these prin-

1 machinery of all ; motors, motorout tests of dyworking conditions, out also throughout ng lathes, fans, etc., n addition to these ng station of more 3

than three thousand lights at work, in which the students may become familiar with the best practice and design of engines, dynamos, switchboard, and wiring.

The following is the general plan of work in this Department:-

THIRD YEAR.—Commencing in November. (a) 3 hours weekly, Electrical Laboratory. Practical use of the Instruments commonly employed in Electrical Engineering, such as ammeters and voltmeters. The Students will be instructed in the management of currents and how to use the instruments, make connections, etc. (b) I hour lecture, 2 hours demonstration, weekly, in the Magnetic Laboratory. Practical magnetic measurements. Commercial tests of iron. Magnetic principles, underlying dynamo design, illustrated by examples worked out numerically in class from data obtained by experiment.

Some changes may be made in this part of the Electrical Course.

FOURTH YEAR.-(c) 2 hours weekly, Electro-Dynamics, lectures.

(d) I hour demonstration weekly, in the dynamo room, methods and principles referred to in lecture illustrated by practical experiments before the whole class. (e) 3 hours weekly, same experiment as in (d) worked out by the students in groups of four or five in the dynamo room. (f) 3 hours weekly, problem paper, examples bearing on the lectures worked out by each student independently in class. (g) 3 hours weekly, graphic solution of practical problems in the draughting room. (h) 3 hours weekly, dynamo design, whole class in the draughting room. (j) I hour weekly, lecture, descriptive electrical engineering, general description of apparatus from the engineering point of view, e.g., laying out of electric roads, design of power stations, etc. (k) I hour weekly during March, lecture, advanced electro-dynamics. (1) I hour weekly during February, lecture, practical testing of electrical systems for faults and insulation. (m) 3 hours weekly, examining and sketching electrical apparatus in the city, lighting and power plants, elevators, etc.

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

# Motors.

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

Elementary Conditions of Displacement: direction of rotation;

general equations for speed and current; relation between torque and induction factor; power diagrams.

118

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

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

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

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

Acceleration: analytical and graphical solutions; braking action.

Motor Control: different types of controllers discussed; the seriesparallel controller; practical results, with figures showing the speed curves obtained on various electric roads; discussion of the advantages of the different controllers under special circumstances, grades, etc.

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

## Alternating Currents.

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

#### DESCRIPTIVE ELECTRICAL ENGINEERING.

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

The lectures on this subject embrace:-

(a) Dynamo electric machines; construction of dynamos; coupling of dynamos. Alternators of different types; construction of alternators. (b) Different systems for the distribution of electrical energy; sectional area of conductors; aerial lines and underground con of machine railways; d batteries.

A special session 1898 Engineering that they as

Professor Professor o Assistar

This cour

I. DESC A course

First Year, Student. B forms, the f isms are ex tions of pri chinery. In the Sec is taken up.

and illustrat Museum. T Definition o Centrodes. Dead points slider-crank and wheel t

While more matic course

between torque

corrections for ng the induction

of torque, speed ors; effect of un-Kapp's method; lation.

of torque, speed effect of unequal

uence on design;

braking action. cussed; the serieshowing the speed ion of the advanumstances, grades,

tion of; case of tandard street car

of general current motive force and losses for given s. Theory of the the Transformer, of testing. Trans-

RING.

ctrical Engineering nts.

n of dynamos; pes; construction stribution of elecal lines and underground conduits. (c) Central stations; their emplacement; selection of machinery; feeders and regulators; switchboards. (d) Electric railways; different systems; overhead construction. (e) Storage batteries.

## Graduate Course.

A special course in Electrical Engineering will be arranged for the session 1898-99. This course will be open to graduates in Mechanical Engineering or others who can show by examination or certificate that they are sufficiently qualified.

# 7. MECHANICAL ENGINEERING.

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

Assistant Professor:-R. J. DURLEY, B.Sc., Ma.E., A.M.Inst. C.E. Demonstrator :-H. M. JAQUAYS, B.A., B.A.Sc.

This course embraces four subjects of study, as follows :--

I. DESCRIPTIVE MECHANISM AND KINEMATICS OF MACHINERY.

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

In the Second Year the science of Kinematics applied to machinery is taken up. Reuleaux's principles and classifications are followed, and illustrated by the fine and unique collection of models in the Museum. The synopsis of the course includes the following subjects: Definition of a machine. Lower Pairs. Kinematic chains and trains. Centrodes. Restraint. Higher Pairs. Force and chain closure. Dead points. Notation Analysis of the quadric crank chain, the slider-crank chain, the double-slider crank chain. Chamber crank and wheel trains. Kinematic synthesis.

## II. DYNAMICS OF MACHINERY.

While motion without regard to force was considered in the kinematic course, the action of external forces so as to compel rest or

 $\mathbf{O}$ 

prevent change of motion, or so as to produce or to change motion in the links of mechanisms, is now considered in a series of lectures extending over two years.

The Third Year course embraces the following:-

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

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

#### III. MACHINE DESIGN.

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

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

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

# IV. MECHANICAL DRAWING.

This course extends over three years :--

SECOND YEAR .- Elementary principles of mechanical drawing.

Simple ma Tracing an

THIRD Y Engine des

FOURTH of a machi machine to

A graduar ranged for,

Experime and gas en frigerating and feed he

Experime transmissio mission ma

Research on the pro

8. MIN

Professor : fesso

Demonstra

The und latter three designing a the specific work in O

I. A cou which both scriptive was slides, pho to change motion a series of lectures

applied to journals lling. Friction in t and rope drives. f the steam engine, ks. Fluctuation of Absorption and

gle acting engines to the connecting yrostatic action in el and governor. forging machines. machines. Knock-

es considered have this respect is conver the Third and

th of materials are and nuts, keys and , axles, shafts and

to the more comrs, toothed wheels, nd their shafts, flyterm is taken up olved in the special office. In succesan overhead travelid other machinery

techanical drawing.

Simple machine details. Sketching of machinery. Dimensioning, Tracing and conventional coloring.

THIRD YEAR.—Making of working drawings. Simple designing. Engine designing.

FOURTH YEAR.—Practical machine design. The complete design of a machine, such as a steam engine, a pump, a crane, a turbine, a machine tool, or an air pump and condenser.

#### Graduate Course.

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

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

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

Researches on the tempering and welding of various materials; and on the properties of alloys.

#### 8. MINING AND METALLURGICAL ENGINEERING.

Professor :- JOHN BONSALL PORTER, E.M., Ph.D. (McDonald Professor of Mining and Metallurgy).

Demonstrator :- JOHN W. BELL, B.A.Sc.

The undergraduate work of this department extends over the latter three Years of the course, and consists of lectures, classes in designing and drawing metallurgical and mining machinery, in the specification of appliances and establishments; and in laboratory work in Ore-Dressing, Assaying, and Metallurgy.

I. A course of lectures is given to the Second Year students, in which both Mining and Metallurgy, are treated in a general and descriptive way. These lectures are illustrated by means of lantern slides, photographs, drawings and specimens from the department Museum, and are intended to give the student a thorough grounding in the subjects, in order that he may be prepared to appreciate the mining or metallurgical establishments which he is expected to visit during his vacation, and to enter properly into the advanced and detailed work of the Third and Fourth Years.

In this Year, the student is expected to spend one afternoon per week in the drawing room, working on the mechanical drawing of machinery.

II. In the Third Year, a detailed course of lectures is given in Metallurgy, the headings being as below:--

GENERAL CONSIDERATIONS.—The properties of metals; alloys; typical processes, etc., etc.

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

ORES.—The ores of the various metals.

REFRACTORY MATERIALS, ETC.-Sand, clay, fire-brick, etc., etc.

FURNACES.—The general types of furnaces and the characteristics of each.

IRON AND STEEL.—The blast-furnace and its accessory machinery; pig iron, cast iron, etc. The conversion of pig iron into wrought iron and steel by means of puddling, blister, Bessemer, openhearth, and other methods. The rolling mill; methods and machinery for making structural iron and steel rails, special shapes, heavy forgings, armour, etc., etc. General design and location of iron and steel plants.

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

LEAD.—Sampling and mixing of ores; calcination and roasting; mechanical roasters; smelting in shaft and reverberatory-furnaces; softening and refining.

GOLD AND SILVER.—Extraction of precious metals from free milling ores; stamp mill amalgamation, amalgamating pan and barrels, patio process, etc. Extraction from refractory ores; roasting chlorination, cyanide process, special methods, etc. Extraction from base metals; lation, partir

OTHER M etc. The elare discussed In addition illustrated, th number of he ing of meta where actual

MINING. etc.; artesian nelling mach ing. Shaft chambering, bering, maso ground haula General array and dwelling

ORE DRESS derground ar sizing; jigs a buddles; tab machinery; s

FIRE Assa crucibles, re-a the students Assay Labora

IV.—Specia and Metallurg of the new la valuable both

V. ILLUSTR ready owns a of which are 1 lent a thorough repared to appreth he is expected ito the advanced

ne afternoon per nical drawing of

ures is given in

metals; alloys;

power; calorific and natural gas. producer-gas.

ck, etc., etc.

sory machinery; on into wrought Bessemer, open-; methods and s, special shapes, and location of

ition and roasty and shaft-fur-Wet methods and manufacture.

n and roasting; eratory-furnaces;

from free milling an and barrels, ores : roasting Extraction from base metals; desilverization of lead, Pattinson, Parkes, etc. Cupellation, parting, wet methods, electro-metallurgy, etc.

OTHER METALS.—Zinc, tin, mercury, nickel, cobalt, aluminium, etc. The elements of the metallurgy of the less important metals are discussed briefly.

In addition to the lectures on Metallurgy, which are thoroughly illustrated, the Third Year students are required to spend a certain number of hours weekly in the drawing room, working on the designing of metallurgical apparatus, and in the metallurgical laboratory where actual work is carried on.

III. In the Fourth Year, a detailed course of lectures is given in Mining, Ore-Dressing and Fire Assaying, the headings being as below:—

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

ORE DRESSING.—Theoretical consideration. Treatment of ores underground and at the surface; hand picking, crushing, screening and sizing; jigs and other concentrators; spitzkasten, spitzlütten, vanners, buddles; tables, magnetic separators, etc. Ore and coal-washing machinery; storage and delivery of ores and coal for transportation.

FIRE ASSAYING.—Sampling; preparing ores for assay; furnaces, crucibles, re-agents, etc. During the second term of the Fourth Year the students are given a thorough course of practical work in the Assay Laboratory on ores of gold, silver, copper and lead.

IV.—Special courses in advanced work are offered in both Mining and Metallurgy, and these courses, owing to the unequalled equipment of the new laboratories, as detailed below, can be made exceedingly valuable both theoretically and practically.

V. ILLUSTRATIONS, MUSEUMS, SOCIETIES, ETC.—The department already owns a collection of one thousand photographs, eight hundred of which are kept in series in duplicate, and loaned to students for the session; and arrangements are being made to turnish sets of these, at cost price, to such students as wish to retain them. This collection is rapidly being enlarged.

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

The McGill University Mining Society meets fortnightly to read and discuss papers by graduate and student members, and from time to time to hear lectures given by outsiders eminent in the profession.

VI. Excursions are made by the classes, from time to time, to such metallurgical works and mining establishments as are within reach, and a short summer session in the coal and gold region of Nova Scotia is arranged for this Year, and open to the students of the Third Year. This work occupies about one month of the vacation between the Third and Fourth Years.

VII. LABORATORIES.—The unequalled laboratories of the University are of peculiar advantage to students in the Mining Course, and enable them not only to become acquainted with the theory of their subject, but to personally investigate its methods on a large scale.

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

VIII. SUMMER SCHOOL.—The summer vacation class in Mining proposed in last year's issue of the Announcement is now being carried on. A party of about twenty of the students of the Mining Department—accompanied by the Professor of Mining and his Assistant—are at present in Nova Scotia. The class will spend about six weeks at work, during which time both the coal and gold regions of Nova Scotia and Cape Breton will be visited, and the students given every opportunity to study the actual work of mining and milling, and also to do some mine surveying and geologising. Thanks to visited, and to school promise be made a reg

> Profe Lectu Dem

This course Year, Students the laws of Cl tions, the prepa and their Comp throughout the they learn the a series of expe ation and deduc

In the Secon Practical Chemi or on Organic Quantitative An and the applica copper, nickel, alogy also const

In the Fourth as Mineral Analy but considerable subjects, and Or

Students of th Analysis during a attention in the various ores, fuel lysis and Determ

The Chemical excepted) from 9 ets of these, at This collection

uites of ores, 1 furnaces, and

ightly to read and from time the profession. time, to such within reach, gion of Nova ts of the Third cation between

the University course, and heory of their large scale. s do systematic uring the last ar, they spend tories for Ore se latter, the methods and in detail, and is work he is by the other special work. vledge of cerof all of the

ss in Mining is now being of the Mining g and his As-1 spend about 1 gold regions 1 the students f mining and ogising. 125

Thanks to the courtesy of the managers of the several mines visited, and to the assistance of others interested in the work, the school promises to be very successful, and it is hoped that it may be made a regular part of the course in the future.

### 9. CHEMISTRY AND ASSAYING.

Lecturer:-NEVIL NORTON EVANS, M.A.Sc. Demonstrator:-Alexander Brodie, M.A.Sc.

This course includes lectures and laboratory work. In the First Year, Students of all Departments attend a course of lectures in the laws of Chemical Combination, Chemical Formulæ and Equations, the preparation and properties of the more important Elements and their Compounds, etc. They also devote one afternoon a week throughout the session to practical work in the Laboratory, where they learn the construction and use of ordinary apparatus, perform a series of experiments designed to cultivate the powers of observation and deduction, and begin Qualitative Analysis.

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

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

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

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

# 126

### 10. THERMODYNAMICS.

#### Lecturer :- J. T. NICOLSON, B.Sc., M. Can. Soc. C.E.

#### Demonstrator:-H. M. JAQUAYS, B.A., B.A.Sc.

Fundamental laws and equations of thermodynamics. Application to perfect gases and to steam saturated and superheated. Efficiency of perfect heat engines. Efficiency of actual air, gas, petroleum, and steam engines.

A study of the steam engine, including wire-drawing, cylinder condensation and jacketing, and the most efficient and most economical point of cut-off. Sizes and proportions of cylinders in single, double and triple expansion engines to develop a given power. Expected indicator diagrams. Sizes and proportions of the principal types of steam generators. Comparison of practical suitability of steam and caloric engines. Theory of engine and boiler testing.

TEXT-BOOK.-Ewing's Steam Engine.

Peabody's Tables of Properties of Steam.

#### 11. GEOLOGY AND MINERALOGY.

# Professors :-- { B. J. HARRINGTON, Ph.D. FRANK D. ADAMS, M.A.Sc., Ph.D.

SECOND YEAR.—A preliminary course in Zoology, with special reference to Fossil Animals.

THIRD YEAR.—Mineralogy (Ordinary and Honour), Petrography, Physical and Chronological Geology and Paleontology, Geology of Canada, Methods of Geological Exploration.

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

For further details see Announcement of the Faculty of Arts.

NOTE.—Students of the Mining and Chemistry courses take the Honour Mineralogy of the Third Year in Arts. Mining Students take the whole Honour Course of the Fourth Year. Chemistry Students take, in addition to the ordinary Course in Geology, the Honour Mineralogy of the Fourth Year.

The Petrographical Laboratory, (See § XIV) is open to Fourth Year Mining Students during the second term. I. ELEMEN student acqu the animal 1 The follow Amoeba, Vc Alcyonium, planeta, Uni Rana.

Two hours strations a v No student the practical

 $\mathbf{P}_{\mathbf{1}}$ 

I. GENERAL rough genera and Classifica (a) A pract both fresh an Pteridophytes life histories. Gray's Man

Collector's G

(b) A coun Classification, tions of plant.

SECOND TEI

2. ADVANCEI have taken Bo vegetable anato (a) Optics a amplifications:

# oc. C.E.

L.Sc.

s. Application ted. Efficiency petroleum, and

twing, cylinder d most econonders in single, n power. Exf the principal l suitability of ler testing.

m.

# Sc., Ph.D.

, with special

, Petrography, y, Geology of

fineralogy and and Palæontod-work. :y of Arts.

urses take the ining Students Chemistry Geology, the

pen to Fourth

# 127

# 12. ZOOLOGY.

## Professor :- E. W. MacBride, M.A., B.Sc.

I. ELEMENTARY ZOOLOGY.—This course is designed to make the student acquainted with the principal types of structure met with in the animal kingdom.

The following types are studied both theoretically and practically:-Amoeba, Vorticella, Hydra, Tubularia, Craspedote Medusa, Aurelia, Alcyonium, Lumbricus, Nereis, Cambarus, Cyclops, Limulus, Periplaneta, Unio, Buccinum, Asterias, Echinus, Amphioxus, Mustelus, Rana.

Two hours of formal lectures a week, and two laboratory demonstrations a week.

No student is permitted to attend the lectures without also taking the practical work.

#### 13. BOTANY.

Professor :- D. P. PENHALLOW, B.Sc., M.A.Sc.

Lecturer :-- C. M. DERICK, M.A.

I. GENERAL MORPHOLOGY.—This course is designed to give a thorough general knowledge of the principles of General Morphology and Classification. In comprises :—

(a) A practical course embracing the determination of species from both fresh and dry material, and type studies of Spermatophytes, Pteridophytes, Bryophytes and Thallophytes, with reference to their life histories.

Gray's Manual, Penhallow's Outlines of Classification and Botanical Collector's Guide.

FIRST TERM, three hours a week.

(b) A course of lectures dealing with General Morphology and Classification, elements of Histology and Physiology; Biological relations of plants; Geographical Botany.

SECOND TERM, two hours a week.

2. ADVANCED BOTANY.—This course, open only to students who have taken Botany I, is designed to give an extended knowledge of vegetable anatomy and special morphology. It comprises:—

(a) Optics and construction of the microscope; determination of amplifications; micrometry; drawings; section cutting; preparation

of microscope objects; micro-chemical reactions; study of cell contents and tissues; comparative studies of type forms of angiosperms and gymnosperms.

Botanical Microtechnique. (Zimmermann, trans. by Humphrey.)

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

Student taking 2a and b will be required to supply their own slides and cover glasses.

Fee for the courses 2a and 2b, \$10.00.

#### 14. EXPERIMENTAL PHYSICS.

The instruction includes a fully illustrated course of Experimental Lectures on the general Principles of Physics (embracing, in the Second Year—The Laws of Energy—Heat, Light and Sound; in the Third Year—Electricity and Magnetism), accompanied by courses of practical work in the Laboratory, in which the Students will perform for themselves experiments, chiefly quantitative, illustrating the subjects treated in the lectures. Opportunity will be given to acquire experience with all the principal instruments used in exact physical and practical measurements. Students of Electrical Engineering will continue their work in the Laboratory in the Fourth Year, when they will undertake, under the guidance of the Professors, advanced measurements and special investigations bearing on their technical studies.

FOURTH YEAR ELECTRICAL STUDENTS.—Students of Electrical Engineering will continue their work in the Physical Laboratory in the Fourth Year. The following is a brief outline of the Course:

Magnetic elements and measurements. Use of Variometers. Testing magnetic qualities of iron.

Theory a Comparis self-induction Principle Testing a Insulation Construct and rate of Electric 1 An addit consideratic The follo have been 1 Heat.-Th thermomete tures. Elec electric pyre Calorimet cific heat w Heat of sol Radiation ratus. Dyn: Viscosity. ture.

Light.—Ph colour vision prism spect Study of spe Polarimetry. face. Sound.—V

tions of peri and interfere *Electricity* stress and to Magneto-opt Electrical electrical ins

Insulation methods. To electric effec batteries. R Electric di

٨

f of cell conf angiosperms

Humphrey.) f the Honours factorily comation. It inof the Thalspecial readbe studied: ia, Spirogyra, on, Rhizopus, teris, Equiseforms in each

eir own slides

of Physics). of Physics.

Experimental acing, in the ound; in the by courses Students will e, illustrating be given to sed in exact f Electrical n the Fourth e Professors, ing on their

f Electrical aboratory in 1e Course: Variometers. 129

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

Principles of construction of electrical instruments.

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

Electric light photometry.

An additional course on telegraph and telephone work is under consideration.

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

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

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

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

Viscosity. Surface Tension. Variation of properties with temperature.

Light.—Photometric standards. 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. Fluorescense and anomalous dispersion. Polarimetry. Landolt and other polar-meters. Form of wave surface.

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

*Electricity and 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 Ballastic methods. Temperature variation of resistance and E.M.F. Thermoelectric effects. Electrolysis. Chemistry of primary and secondary batteries. Resistance of Electrolytes, Polarisation.

Electric discharge in gases and high vacua. Dielectric strength.

I

Behaviour of insulators under electric stress. Specific inductive capacity. Electric oscillations. Electro-magnetic optics. Alternating currents of high frequency and voltage.

N.B.—Students taking a Graduate Course will receive guidance in any advanced Mathematics required in connection with their work.

#### 15. MATHEMATICS AND MATHEMATICAL PHYSICS.

### Professor :--G. H. CHANDLER, M.A. Lecturer :--R. S. LEA, Ma.E.

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

The lectures will embrace the following subjects :-

FIRST YEAR.—Euclid, to the end of Book VI., with exercises on Loci, Transversals, etc., Algebra, including the Binomial Theorem. Elements of Solid Geometry and of Geometrical Conic Sections. Plane and Spherical Trigonometry. Elementary Kinematics and Dynamics.

SECOND YEAR.—Analytic Geometry. Differential and Integral Calculus. Dynamics of Solids and Fluids.

THIRD YEAR.—Continuation of Analytic Geometry, Calculus and Dynamics.

Classes may also be held for advanced (optional) work in these or other subjects.

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

Text-Books (Partial list) .- Todhunter's or Mackay's Euclid, Hall

& Knight' Conic Sect Blakie's D Tables, Ch

16. I

Professor

FIRST YE

Instruction Observatory Certificates factory exan Instruments

In the La of conducti daily becon

I. ASSA GICAL LABC 2. ASTRC

RATORY. 3. CEMEN

4. CHEMI Building w University, will be r The buildin atories acc

#### 130

ific inductive Alternating

e guidance in their work.

#### PHYSICS.

e outset with zience. Much les, particular ing of curves, zrvations, etc. f inertia, etc., r experiment, he other. In practice, of a i's machines, arious kinds, ion of results will also re-

exercises on ial Theorem. nic Sections. tematics and

Integral Cal-

Calculus and

ork in these

guidance in heir work.

Euclid, Hall

131

& Knight's Elementary Algebra, Wilson's Solid Geometry and Conic Sections, Wentworth's Analytic Geometry, Chandler's Calculus. Blakie's Dynamics, Wright's Mechanics, Bottomley's Mathematical Tables, Chambers' Mathematical Tables.

#### 16. ENGLISH LANGUAGE AND LITERATURE.

Professor :-- C. E. MOYSE, B.A. (Molson Professor of English Language and Literature).

Lecturer :---C. W. COLBY, Ph.D.

FIRST YEAR.-A special course in English Composition.

#### 17. METEOROLOGY.

Instruction in Meteorological Observations will be given in the Observatory at hours to suit the convenience of the Senior Students. Certificates will be granted to those Students who pass a satisfactory examination on the construction and use of Meteorological Instruments and on the general facts of Meteorology.

#### § XIV. LABORATORIES.

In the Laboratories the Student will be instructed in the art of conducting experiments, a sound knowledge of which is daily becoming of increasing importance in professional work.

I. ASSAYING LABORATORY. See MINING and METALLUR-GICAL LABORATORIES.

2. ASTRONOMICAL OBSERVATORY. See GEODETIC LABORATORY.

3. CEMENT LABORATORY. See TESTING LABORATORIES.

4. CHEMICAL LABORATORIES.—The Chemistry and Mining Building which, with his wonted liberality for the University, Mr. W. C. McDonald has erected, will be ready for occupation in September, 1898. The building, in addition to three large general laboratories accommodating about 200 students at a time, will have a number of smaller laboratories and rooms for special purposes and for research work in inorganic and organic chemistry. Among the special rooms may be mentioned those for physical chemistry, organic chemistry, iron and steel analysis, water-analysis, gas-analysis, electrolytic-analysis, photography, etc. Provision is also made for practical work in mineralogy and petrography, subjects which have come to be essentially departments of chemistry and physics, and which are at the same time intimately related to mining and metallurgy.

The Chemistry lecture-room, extending through two floors, is entered at the ground level, but each of the higher floors will also have its class-room. On the second there is a library, and also a museum for chemical products. The rooms for allied purposes have, as far as possible, been grouped together on the same floor, and there is a hydraulic lift running from the basement to the top storey. The building is practically fire-proof, and lighted throughout by electricity.

5. DYNAMICS, LABORATORY OF. See MATHEMATICS and DYNAMICS, LABORATORY OF.

6. ELECTRICAL LABORATORIES.—These consist of:—

(a) The Electrical Laboratory proper, where the standard instruments are kept and experiments made in the electrical course. The instruments comprise amongst others two of Lord Kelvin's electric balances, a Thomson galvanometer, four d'Arsonval galvanometers, two Siemens' dynamometers, two Kelvin electrostatic voltmeters, a complete set of Weston ammeters and voltmeters, besides resistance coils. etc.

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

During the past session a new standard speed indicator has been set up in the Electrical Laboratory for the purpose of measuring the frequency of alternating currents by comparison with a standard tuning fork. Several measurements have already been made with this instrument on the self-induction of coils of different sizes and shapes.

# (b) The galvanom ratus mac (c) The 25 KW I

KW Mo: (the coils angle, and tained), a namo, a KW Tho: Brush arc clutch pul engine.

A Stand dian Gene winter and perimental instal a co

motors, an

(d) Duri
gone exte
× 36 ft. in
been set aj
The equ

son dynam by a Willar eral Electr horizontal of highly the differe lighted by running on power server rent from t

132

oms for speand organic mentioned on and steel tic-analysis, actical work ave come to s, and which and metal-

h two floors, igher floors ere is a lib-The rooms grouped tolift running ing is practricity.

MATICS and

t of:--e standard he electrical ers two of lvanometer, amometers, : of Weston etc. hone of the pr room. idicator has purpose of by compaasurements the self-in(b) The Magnetic Laboratory.—Here are set up a ballistic galvanometer, Ewing's curve tracer, and a variety of apparatus made in the College for magnetic tests of various kinds.

(c) The Dynamo Room.—The apparatus here consists of a 25 KW Edison dynamo, two 12 KW Edison dynamos, a 12 KW Mordey alternator made specially for this laboratory (the coils on the armature can be moved round through any angle, and two or three currents of any phase difference obtained), a 7 KW Victoria dynamo, a 7 KW Fort Wayne dynamo, a 6 KW Thomson-Houston arc-light dynamo, a 15 KW Thomson-Houston incandescent dynamo, and a 5 KW Brush arc-light dynamo. All these are driven off magnetic clutch pulleys by an 88 horse power MacIntosh & Seymour engine. There are also here several different transformers, motors, arc lamps, etc., and a 3 KW motor generator.

A Standard Street Railway motor presented by the Canadian General Electric Co. has been set up during the past winter and is fitted with brakes and other apparatus for experimental work. Arrangements are also being made to instal a complete street railway testing department.

(d) During the past year the lighting station has undergone extensive enlargement and alterations.—A room  $34 \times 36$  ft. in the basement floor of the Workman Building, has been set apart for this purpose.

The equipment now comprises a 30 KW Edison-Hopkinson dynamo, and a 30 KW Siemens' dynamo, each driven by a Willans' engine, and a 75 KW Multipolar Canadian General Electric Generator, driven by a Goldie and McCulloch horizontal engine. The switchboard, panel in form, is made of highly polished enameled slate. It is so arranged that the different buildings—containing 3,000 lights—can be lighted by two dynamos in series, or, if the load is light, by one running on the two wire system, or by accumulators. The power service is independent of the light, and derives its current from the 75 KW Generator. Electric motors, ranging in size from I H.P. to 25 H.P., and with total of 135 H.P., are already in operation.

Space has been reserved in the dynamo room for enlarging the plant to double its capacity.

The batteries are charged from a 7 KW. motor-generator, call a booster, of the Tindell type.

The whole is in every respect typical of the latest and best English and American practice.

(e) The Accumulator Room.—Containing Crompton-Howell storage cells of a united capacity of eight hundred ampere hours.

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

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

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

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

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

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

A series of experiments have been made on a Street Railway motor to ascertain its conditions of speed and acceleration.

7. MATHEMATICS AND DYNAMICS, LABORATORY OF.—The equipment of this Laboratory includes instruments for the measurement of distance (scales, micrometers, cathetometer), of area (planimeters), of volume (flasks, graduated vessels, etc.), of time (clocks, chronographs), of mass (beam and spring balances); it is also provided with a mechanical integrator, specific gravity balances, Atwood and Morin machines for experiments on the Laws of Motion, inclined planes, a variety of rotation apparatus (gyroscope, Maxwell's dynamical top, mometer

The Ma the course derived un deductions made acqui mitted to t ter are assi titative, and physical ba of distance proceed to tions, force: ments, etc. complete, e purpose to variety of a ticular atten ing, in gen reference to Engineering

8. MECH ments are machine to Lubricants rolling fric for experim

Much value the opening mechanical we tester and the ment, have be ing the efficion a new profor measurin square inch, to and a belt-tess With these

pliances in t

or enlarging r-generator, est and best

f 135 H.P.,

ton-Howell red ampere

he Electrical es of experi-

litted by the

le-power and fferent types. magnetic exents' work. ynamo room, y a series of rs, and have

on armature nese are now ults. ailway motor

r OF.—The ents for the thetometer), ted vessels, (beam and nanical intein machines d planes, a ell's dynamical top, torsion balance, pendulums, etc.), air-pumps, thermometers, barometers, etc.

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

8. MECHANICAL LABORATORY.—In this Laboratory experiments are carried out on the efficiency of belts, shafting, and machine tools. Governors are tested with the chronograph. Lubricants by journal friction-testing machine. Sliding and rolling friction and the stiffness of ropes also form subjects for experiment.

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

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

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

9. METALLURGICAL LABORATORY. See MINING and METALLURGICAL LABORATORIES.

10. MILLING ROOM. See MINING and METALLURGICAL LABORATORIES.

11. GEODETIC LABORATORY.—The equipment of this laboratory consists of:—

- (1) Linear instruments.
- (a) A Rogers' comparator and standard bar for investigating standards of length.
- (b) A fifty-foot standard and comparator for standardizing steel bands, chains, tapes, rods, etc.
- (c) A Whitworth end-measuring machine and set of standards.
- (d) A Munro-Rogers linear dividing engine.

(2) Circular instruments.

- (a) A Rogers' circular comparator and dividing engine.
- (b) Two level triers.

(3) Time.

- (a) An astronomical clock and clock circuit in connection with the observatory clocks.
- (b) Chronometers running on mean and sidereal time.
- (c) Chronograph.

(4) Gravity—A portable Bessel's reversible pendulum apparatus, with special pendulum clock and telescopic apparatus for observing coincidences of beats.

(5) A water gauge apparatus for testing aneroid barometers.

- (6) Magnetic instruments:
  - (a) A Kew dip circle.
  - (b) A Kew filar magnetometer.

The laboratory is constructed with double walls and enclosed air spaces, and has a special heating apparatus, so that the temper desired deg The ord described i

ASTRONG ment for t consists of

(a) A Bar (b) Two a ati

(c) A Tro

(d) An as

(e) Siderea (f) Chrono clock

> made. 12. Hyj

study pract forms and through pi

The equ (a) A lar ft. in section ed on the f merged. E ly interchan of only abo ing arrange delicate and by an elect ready been

the city was creased up (b) An Ir

sure the for nozzle, or

pulsive effe

motors.

arches during ks and manu-IINING and

ALLURGICAL

of this la-

investigating standardizing

of standards.

ngine.

nnection with me.

um apparatus, 1s for observ-

d barometers.

alls and enatus, so that the temperature within may be brought to, and held at, any desired degree.

The ordinary course of instruction in this laboratory is described in § XIII., Art. 3.

ASTRONOMICAL OBSERVATORY.—The observatory equipment for the purpose of instruction in practical astronomy consists of:—

- (a) A Bamberg prismatic transit with zenith attachment.
- (b) Two astronomical transits for meridian observations. Collimating telescopes.
- (c) A Troughton & Simms' zenith telescope.
- (d) An astronomical transit in the prime vertical.
- (e) Sidereal and mean time clocks and chronometers.
- (f) Chronograph and electrical circuits by which observations and clock comparisons within or without the observatory may be made.

12. HYDRAULIC LABORATORY.—-Here the student will study practically the flow of water through orifices of various forms and sizes, through submerged openings, over weirs, through pipes, mouth-pieces, etc.

The equipment of this laboratory includes:-

(a) A large Experimental Tank, 30 ft. in height and 25 sq. ft. in sectional area. With this tank experiments are conducted on the flow of water through orifices either free or submerged. By a simple arrangement the orifices can be rapidly interchanged without lowering the head, and with the loss of only about one pint of water. The indicating and measuring arrangements connected with the tank are exceedingly delicate and accurate, all times being automatically recorded by an electric chronograph; and valuable results have already been obtained. By means of a special connection with the city water-supply, the available head of water may be increased up to 280 ft.

(b) An Impact Machine, which renders it possible to measure the force with which water flowing through an orifice, nozzle, or pipe, strikes any given surface, and also the impulsive effect of the water entering the buckets of hydraulic motors.

#### 137

(c) A Rife's Hydraulic Ram.

(d) A Jet Measurer specially designed for investigating the dimensions of the jet produced in the phenomena known as "the inversion of the vein." With this apparatus it is possible to determine, within .001 inch, the dimensions of a jet in any plane and at any point of the path.

(e) Numerous orifices, nozzles, and mouth-pieces.

(f) A specially designed stand-pipe, with all the necessary connections for pipes of various sizes for investigations on frictional resistance. The pressures are measured by recording gauges, etc.

(g) A flume about 35 feet in length, by 5 ft. in width by 3 ft. 6 ins. in depth.

(h) Weirs up to 5 ft. in width, and with a depth of water over the sill varying from nil to 8 inches. A weir-depthing machine, with three adjustable heads, gives the surface depth of the stream at any three points in a transverse section. The velocity of the stream is also determined by means of a double Pitôt tube.

- (i) Numerous hydraulic pressure-gauges.
- (*j*) A mercury column 60 feet in height.

(k) Gauge-testing apparatus.

(1) Various rotary, and piston meters, and a Venturi meter.

(m) Apparatus for illustrating vortex motion.

(n) Apparatus for illustrating vortex ring motion, and for determining the critical velocity of water flowing through pipes.

(*o*) Five specially built gauging tanks with suitable indicators, each having a capacity of 800 cubic feet. Also other portable tanks.

(p) Transmission and absorption dynamometers.

(q) An experimental centrifugal pump, which can be tested with varying heights of suction and discharge.

(r) An inward-flow turbine, a new American turbine, a Pelton, and other motors and turbines.

(s) Standard gallon and litre measures with glass strikes,

This Labor ally designe adapted to and at all s set is comp of 7 in. dia have two i that both th placed by ot set of contilaboratory an accurate valves may time, speed,

In the Hyd on the flow of the effect of mining the co Similar exp over weirs ha thus able to o problems, whi their future can

13. MININ McDonald ( and the Mini in the lower

These labor: fessor's office, conveniently a: and occupy th both wings. 7 square feet, div

Mining and

square feet; A square feet; A Rooms, 500 sq Library and D forth, 3,000 squ estigating the ena known as atus it is posisions of a jet

ieces.

the necessary estigations on ed by record-

in width by 3

epth of water weir-depthing surface depth section. The ns of a double

nturi meter.

tion, and for ring through

itable indica-Also other 's. :an be tested

un be teeted

1 turbine, a

class strikes,

139

This Laboratory is also provided with a set of pumps, specially designed for experimental work and research. They are adapted to work under all pressures up to 120 lbs. per sq. in., and at all speeds up to the highest found practicable. The set is composed of three vertical single acting plunger pumps of 7 in. diam., 18 in. stroke, driven by one shaft. They have two interchangeable valve chests, and it is arranged that both the valves and their seats may be removed and replaced by others. The pumps are also provided with a double set of continuous triple recording indicators designed in the laboratory and having electrical connections. With these, an accurate record of the history of the suction and discharge valves may be obtained at any given time, all fluctuations of time, speed, pressure, etc., being automatically recorded.

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

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

13. MINING AND METALLURGICAL LABORATORIES.—The McDonald Chemistry and Mining Building is now completed, and the Mining and Metallurgical Laboratories, to be situated in the lower part of the structure, are fully equipped.

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

Mining and Ore-Dressing Laboratory, or Milling Room, 3,500 square feet; Metallurgical Laboratory, or Furnace Room, 2,500 square feet; Assay Laboratory, 2,000 square feet; Wet Assaying Rooms, 500 square feet; Technical Lecture Room, 600 square feet; Library and Drawing Room, 500 square feet; Offices, Stores and so forth, 3,000 square feet. The two rooms first mentioned are of great size, and are the chief laboratories of the department. In these it is possible to take any ores of gold, silver, copper or lead in the condition in which they come from the mines, and to treat them from beginning to end precisely as they are treated in the ore-dressing works and smelting plants of the West. They may therefore be considered a small commercial plant for the actual production of metals. They differ from commercial plants, however, in that an ordinary ore-dressing establishment or smelter is designed to treat the ores of only one district and sometimes of only one part of a district. The University Laboratories must of course be adapted to all ores now found or likely to be found in the Dominion, and therefore contain a greater number of pieces of apparatus than are to be found in any one commercial establishment, although probably no case will come up when all of these machines will be used for any one test.

THE MILLING-ROOM is equipped with a complete working plant, capable of treating, if necessary, 10 to 20 tons of ore per day, the chief pieces of apparatus being :-Rock Crushers of three kinds ("Blake," "Dodge" and "Gates"), to break the large pieces of ore to small size. Stamp mills of 500, and 950 lbs., respectively, for the fine crushing and amalgamating of gold ores. Huntingdon mill, for crushing and amalgamating. Rolls, both coarse and fine, to reduce ores to powder when necessary. Trommels and sieves, for sizing the crushed ores. Hartz and Collom jigs for concentrating minerals by gravity. Revolving, bumping, and belt tables, for separating valuable minerals contained in fine sands and crushed rock. Plates and pans for amalgamating gold and silver ores. Spitzkasten, Spitzlütten, magnetic separators and various other special pieces of ore-dressing apparatus.

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

THE METALLURGICAL LABORATORY is fitted with a water-jacket blast-furnace, 24 ins. inside diameter, for smelting lead and copper, and with the naces, a Brue an English c It has also leaching of si gold ores, th the gold meta yields in the

These two each 20 ft. his age of ores, the elevator a also an overl buckets. Mat with the great apart, and, if

It is not th for commercia service. They investigation; struction give students than and, at the sa apparatus will munity, as the ditions, and w to interfere w small scale.

THE ASSAVI muffle and crue oil and others one of these fu more desirable. and assay-balan

14. MODEL in clay, as pa is arranged i tory. Third course in Me Professor of ind are the chief ible to take any n in which they ning to end preks and smelting ed a small com-They differ from e-dressing estabof only one dis-The University s now found or ontain a greater n any one coml come up when

working plant, re per day, the of three kinds large pieces of respectively, for funtingdon mill, se and fine, to and sieves, for r concentrating ables, for separl crushed rock. s. Spitzkasten, pecial pieces of

re; it is of full commercial est elevators—on : each piece can nd such of the of material are dapted to illus-;, is even more ll a scale as is

a water-jacket ad and copper, and with the necessary blast apparatus; also with reverberatory furnaces, a Bruckner-cylinder furnace, a reverberatory roasting-furnace, an English cupellation-furnace, and several crucible furnaces.

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

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

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

THE ASSAYING LABORATORY is equipped with a complete set of muffle and crucible furnaces, some of each being arranged for gas and oil and others for coke and charcoal, as in some parts of the West one of these fuels must be used, while in other parts another is found more desirable. Connected with this laboratory are rooms with pulpand assay-balances, and others equipped for wet analysis of ores.

14. MODELLING LABORATORY.—A Laboratory for modelling in clay, as part of the work in the Architectural Department, is arranged in connection with the Cement-testing Laboratory. Third Year Architectural Students follow a regular course in Modelling under the instruction of the Assistant Professor of Freehand Drawing. The Laboratory is fully equipped for the work, including the making of plaster casts from the executed clay models.

15. PETROGRAPHICAL LABORATORY.—The Petrographical Laboratory, containing the chief rock collections of the University, is situated in the east wing of the Arts building, but is about to be transferred to the new Chemistry and Mining building. It is arranged for the use of Students in the Mining Course as well as for those desiring to take advanced work, and is provided with a number of petrographical microscopes by Seibert and Crouch, as well as with models, sets of thin sections, electro-magnets, heavy solutions, etc., for petrographical work.

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

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

The basement contains the cellars, furnaces, and janitor's department at the west end of the building. The machine room-containing a small gas also be used dynamo—is so as to be and electrica trolling the rent to diff contains a fe which are fitt rheostats for amperes for

The Magn variometers c Electro-dynan set up with g Gravitation L tains a very f resistance, cor It also contain Recording Mi is intended to apparatus for

There is a walls, which c comparator wc construction is

The Ground shop, fitted wi driven by elect the making and of a mechanical glass, chemical lavatories for th

fitted with a r floor, and rest slate shelves ro of electrometers instruments of connects with a resistance boxes small research la

The Main El

of plaster casts

Petrographical lections of the Arts building, istry and Mintudents in the take advanced ographical mih models, sets ions, etc., for

estigation Dr. 1 thin sections son.

1 Physical Laare feet area. oms, the build-> feet square ; work by adof rooms for is for private ries arranged isual standard ith apparatus ecial physical ment is on a tus for illusal instruments e most recent measurement, research.

> mitor's departm-containing

143

a small gas engine and dynamo, which are fitted for testing, but can also be used for light and power, a motor-alternator and a motordynamo—is situated at the extreme western corner of the basement, so as to be as far removed as possible from the delicate magnetic and electrical instruments. Here is also the switch-board for controlling the various circuits for supplying direct or alternating current to different parts of the building. The Accumulator Room contains a few large storage cells, charged by the motor-dynamo, which are fitted with a suitable series-parallel arrangement, and with rheostats for obtaining and controlling large currents up to 4,000 amperes for testing ammeters and low resistances, etc.

The Magnetic Laboratory contains magnetic instruments and variometers of different patterns, and also a duplicate of the B. A. Electro-dynamometer, which has been completely remodelled and set up with great care for absolute measurements of current. The Gravitation Laboratory, on the opposite side of the basement, contains a very fine Lorenz apparatus for the absolute measurement of resistance, constructed under the supervision of Prof. Viriamu Jones. It also contains a set of Ewing Seismographs and a pair of Darwin Recording Mirrors for measuring small movements of the soil. It is intended to add a special form of Kater Pendulum and a Cavendish apparatus for further researches.

There is a Constant Temperature Room, surrounded by double walls, which contains a Standard Rieffler Clock, and is fitted for comparator work. The addition of a standard Barometer of special construction is also in contemplation.

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 the viscosity of gases and of the electrical discharge in high vacua.

The First Floor contains the Main Lecture Theatre, with seats for about 250 students. The lecture table is supported on separate piers, which are independent of the floor. Complete arrangements are provided for optical projection and illustration. The Preparation Room in the rear contains many of the larger pieces of lecture apparatus, but the majority of the instruments, when not in use, are kept in suitable cases in the adjoining apparatus room. On the same floor there is the Heat Laboratory, devoted to advanced work in Thermometry, Pyrometry and Calorimetry, and also to such electrical wor', as involves the use of thermostats and the measurement of the effects of temperature. There are also two smaller rooms for Professors and Demonstrators.

The Second Floor is partly occupied by the upper half of the Lecture Theatre. There is also an Examination Room for paper work, a Mathematical Lecture Room, with a special apparatus room devoted to apparatus for illustrating Mathematical Physics, and a special Physical Library chiefly devoted to reference books and periodicals relating to Physics. A store room, lavatories and Professors' room occupy the remainder of the flat.

The Third Floor contains the Elementary Laboratory, a room 60 feet square, devoted to elementary practical work in Heat, Sound and Electricity and Magnetism. There is a Demonstrator's room adjoining, and an optical annex devoted to experiments with lenses, galvanometers, etc., which require a darkened room. On the other side of the building there is a spectroscopic room containing a six-inch Rowland grating, with mountings by Brashear, and other large spectrometers and polarimeters. Also a series of smaller optical rooms, including a photometric room, specially fitted for Arc photometry, and a dark room for photographic work. Above are spacious and well-lighted attics, which are at present used for storing wood and other materials, but may in the future be applied to other purposes. Communication between the different flats is facilitated by means of a hydraulic elevator. The building is lighted throughout by electricity, and heated by hot water. The walls are of pressed brick, and the floors of hard maple. There is a ventilating system, consisting of Tobin tubes and suitable exit flues, assisted by a fan in the roof.

17. TESTING LABORATORIES.—The principal experiments carried out in these will relate to the elasticity and strength

of materials, f springs, gaug laboratory inc

(a) A Wich for testing the of the several been added a transverse stree can be determ holders required ers have also be tory for invest timber for wire ments have also ready increased a double-bearing

(b) An Impagearing which a gearing which a quired speed, a intervals. By a accurate record blows can be of (c) An Unwi angle-measurer, measured with e (d) An Accursquare inch, wh

chines, and ensu which is imposs for an Accumula

(e) A Blake an work against a p Accumulator ma if at any time it i be employed to a operation the wo tomatic.

#### lectrical dis-

, with seats on separate rrangements Preparation s of lecture t in use, are l. On the vanced work lso to such the measurenaller rooms

> of the Lecpaper work, s room desics, and a books and es and Pro-

, a room 60 . Sound and oom adjoinlenses, gale other side g a six-inch · large spectical rooms, photometry, pacious and g wood and er purposes. d by means out by elecessed brick, system, conby a fan in

> xperiments id strength

of materials, friction, the theory of structures, the accuracy of springs, gauges, dynamometers, etc. The equipment of this laboratory includes :—

(a) A Wicksteed 100-ton and an Emery 75-ton machine for testing the tensile, compressive and transverse strength of the several materials of construction. To the former has been added a specially designed arrangement, by which the transverse strength of girders and beams up to 26 ft. in length can be determined. These machines are provided with the holders required for the various kinds of tests, and new holders have also been specially designed and made in the laboratory for investigating the tensile and shearing strength of timber for wire rope and belt tests, etc. Numerous attachments have also been made to the machines, which have already increased their efficiency. The most recent addition is a double-bearing support for transverse testing.

(b) An Impact Machine, with a drop of 30 ft., and with gearing which will enable specimens to be rotated at any required speed, and the blows to be repeated at any required intervals. By means of a revolving drum, a continuous and accurate record of the deflections of the specimens under the blows can be obtained.

(c) An Unwin Torsion Machine with a specially designed angle-measurer, by which the amount of the torsion can be measured with extreme accuracy.

(d) An Accumulator, furnishing a pressure of 3,600 lbs. per square inch, which is transmitted to the several testing machines, and ensures a perfectly steady application of stress, which is impossible when any form of pump is substituted for an Accumulator.

(e) A Blake and a Worthington Steam Pump, designed to work against a pressure of 3,600 lbs. per square inch. The Accumulator may be actuated by either of the pumps, and, if at any time it is desirable to do so, either of the pumps may be employed to actuate the testing machine direct. When in operation the work of the pump and the accumulator is automatic.

ĸ

(f) Extensioneters of the Unwin, Martens, Marshall and other types. The extensioneter equipment has recently been enriched by seven sets of improved extensioneter apparatus designed and made in the laboratory.

(g) Portable cathetometers, and also a large cathetometer specially designed and constructed for the determination of the extensions, compressions and deflections of the specimens under stress in the testing machines.

(h) An automatic electric motor pump for actuating the Accumulator; also various electric motors for working the several machines.

(i) A drying oven for beams up to 26 ft. in length. The hot air in this oven is kept in circulation by means of a fan driven by an electric motor.

(j) Numerous gauges, amongst which may be specially noticed an Emery Pressure Gauge, graduated in single lbs. up to 2,500 lbs. per square inch. The whole of the testing machines are on the same pressure circuit, and are connected with the Emery gauge and also other standard gauges, including recording gauges. This arrangement provides a practically perfect means of checking the accuracy of the testing.

(k) Special apparatus and recording gauge for the testing of hose, etc.

(*l*) Dynamometers for measuring the strength of textile fabrics, the holding power of nails, etc.

(m) Apparatus for determining the elasticity of long wires.

(n) Apparatus for determining the hardness of materials of construction.

(o) Zeiss and other Microscopes.

(p) Delicate chemical and other Balances. A very important part of the equipment is the Oertling Balance, capable of indicating with extreme accuracy weights of from .00001 lb. up to 125 lbs.

(q) Micrometers of all kinds.

18. CEMENT LABORATORY.—The importance of tests of

the strength ment of the including:— (a) Three best English (b) One 5 (c) Volum for determin

> (d) Faija : (e) Mechai

(f) Appara

(g) Vicats'

(h) Weight
(i) Gun moverse test picture
(ii) the moulds the mould the moulds the mould th

the mechanic inated.

(j) Sieves meshes per l The labora which the bri and with cap for keeping t

In the Cemen the strength of natural and Por mortars, the str in brick piers, tl cements, of usin the strength of Students.

In addition to each year by th gravity, fineness tensile, compress and with the sa on on the new r duced on the Ca rshall and ently been apparatus

thetometer ination of specimens

ating the

gth. The is of a fan

e specially single lbs. the testing connected res, includes a prache testing. he testing

of textile

ong wires. materials

very imance, cap-; of from

of tests of

147

the strength of mortars and cements is very great. The equipment of the Laboratory for the purpose is on a complete plan, including:—

(a) Three one-ton tensile testing machines, representing the best English and American practice.

(b) One 50-ton hydraulic compressive testing machine.

(c) Volumenometers for determining specific gravity and for determining the carbonic acid in the raw material.

(d) Faija steaming apparatus for blowing tests.

(e) Mechanical hand and power mixers.

(f) Apparatus for determining standard consistency.

(g) Vicats' and Gilmore's needles for determining set.

(h) Weighing hopper, spring and other balances.

(i) Gun metal moulds for tension, compression and transverse test pieces, and special moulds for placing mortar into the moulds under a uniform pressure, which, together with the mechanical mixers, enable the personal error to be eliminated.

(j) Sieves of 20, 30, 40, 50, 60, 70, 80, 100, 120 and 180 meshes per lineal inch for determining the fineness.

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

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

In addition to these researches, a large amount of work is done each year by the Third Year students, in investigating the specific gravity, fineness, setting properties, constancy of volume, and the tensile, compressive and transverse strengths of cement, both neat and with the sand. A special investigation is now being carried on on the new material called "Sand-Cement" which is being introduced on the Canadian market.

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

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

During the past session two new boilers have been added to the equipment by the munificence of Mr. W. C. McDonald. They are of 130 horse-power each; one being of locomotive type, the other an internally fired tubulous boiler, with return flues, by the Robb Engineering Company, of Amherst, N.S. These, together with the new 100 horse-power Goldie-McCulloch engine and the Willans' engine in the Dynamo Room, are now completely fitted for testing and available for experimental work. In this way there are available for research five distinct types of steam boilers, and eight steam engines. The last session was distinguished by a series of trials carried out by the Fourth compound stea Montreal Street important scien in a very com cylinder covers walls.

A small engineric presented to the thereon, by the for testing the consumer-heating can a fuel calorimet gether with num of the prelimina

The Peter 1 collections in arranged in su departments. I nection with t subjects above tained on appl Technical Mus of the Enginee Museum contai els, presented t Professor Reul lection in Ame

ARCHITECTUI ment has been a very thorough tion; this is at tion. In the I cluded a large tail and orname dynamic 1 engine n of the are four f single, or nonnents of idensing ydraulic er develpurpose, atic cutn Cycle, Woodnpletely Many onstrucmamics, uges, a erties of gauges, a Moslern dee work-

ern dee workto the l to the 'hey are other an Enginthe new ngine in d availfor reengines, ried out 149

by the Fourth Year Mechanical Students on the 3,000 horse-power compound steam engine, by the Laurie Engine Company, at the Montreal Street Railway's William Street Power Station. From these important scientific results are expected, as the tests were carried out in a very complete manner, including the drilling of holes in the cylinder covers and the insertion of electrical thermometers in the walls.

A small engine of the Root type, called "the Dake" has been presented to the Laboratory, in return for a series of tests reported thereon, by the Jenckes Engineering Company. A mass of apparatus for testing the dryness of steam (including separating, throttling and super-heating calorimeters), a steam orifice, a Penberthy injector and a fuel calorimeter have been permanently fitted up, and form, together with numerous pyrometers, indicators and springs, the subjects of the preliminary part of the course.

#### S XV. MUSEUMS.

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

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

A special architectural department has been added to the Faculty Library for the use of students, and numerous important works have been added to the University Library. A collection of architectural photographs is being formed in addition to diagrams and a very complete series of lantern slides in illustration of the historical courses. Diagrams, models and specimens of materials and fittings are also included for use in the courses on building construction and materials, sanitation, etc.

#### § XVI. WORKSHOPS.

The workshops, erected on the Thomas Workman Endowment, have a floor area of more than 25,000 sq. ft.

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

The equipment includes the following:

IN THE CARPENTER, WOOD-TURNING AND PATTERN-MAKING DEPARTMENTS.—Carpenters' and pattern-makers' benches, wood-lathes, a large pattern-maker's lathe, circularsaw benches, universal woo

IN THE MA lathes, a 36-in universal milli hand lathes, F cutter and rea shaper, vise-be

IN THE SMI' hammer.

IN THE FOU brass furnace, n The machine pound engine a In the workshop object upon which completed and ad present year. A heads, an Emery 1 of one ton capaci and two electric and demonstration has in the workshops.

Good board at or separately, bo month. The co course may be p \$7 to \$10. Boo Estimated nec cluding fees, bu penses, \$270 to \$ Students can of tion to the secret l figure tectural and de-

to the bus im-Library. formed lantern is, modncluded aterials,

an En-

gned to materiimpormanual student, k in the Iechancourses l up to tc., finith the le, with

> rternnakers' ircular

151

saw benches, jig and band saws, buzz-planer, wood-borer, universal wood-worker, etc.

IN THE MACHINE SHOP.—The most improved engine lathes, a 36-in. modern upright drill, with compound table, universal milling machine, with vertical milling attachment, hand lathes, planer, universal grinding machine, universal cutter and reamer grinder, buffing machine, a 16-in. patent shaper, vise-benches, etc.

IN THE SMITH SHOP.—Forges, hand drill, and a power hammer.

IN THE FOUNDRY.—A cupola for melting iron, core oven, brass furnace, moulders' benches, etc.

The machinery in the shops is driven by a 50 I.H.P. compound engine and a 10 I.H.P. high speed engine.

In the workshops, a 40 H. P. air compressor has formed the staple object upon which energy has been spent. This, it is hoped, will be completed and added to the Thermodynamic Laboratory during the present year. A large boring bar, with automatic feed and double heads, an Emery brass buffing machine, an overhead travelling crane of one ton capacity, with two transverse motions, in the foundry; and two electric arc lamps and projecting lanterns complete for class demonstration have been the principal results of steady application in the workshops.

# BOARDING HOUSES, ETC.

Good board and lodging may be obtained at \$18 per month; or separately, board at \$12 to \$14, and rooms \$5 to \$10 per month. The cost of drawing instruments for the whole course may be placed at from \$15 to \$30. Gown and overalls, \$7 to \$10. Books per session \$10 to \$30.

Estimated necessary cost per session of  $7\frac{1}{2}$  months, including fees, but exclusive of clothing and travelling expenses, \$270 to \$320.

Students can obtain a list of boarding houses on application to the secretary.

#### 152

# THE APPLIED SCIENCE GRADUATES' SOCIETY.

This Society has been recently established with a view to promote a closer relationship between the Faculty and the Graduates, and also between the Graduates themselves. The Society has issued a number of important bulletins relating to the work in the different departments, and giving an account of the development of the Faculty. The membership already includes more than one-third of the whole number of Graduates, and it is hoped that before long all of the Graduates will have joined the Society.

All information respecting the objects of the Society may be obtained on application to the Secretary.

Honorary President, Dr. H. T. BOVEY.

President, J. M. MCCARTHY.

Vice-President, Prof. F. D. ADAMS.

Sec.-Treas., J. G. G. KERRY, Engineering Building, McGill University.

Resident Committee.—W. F. Angus, J. W. Bell, A. L. Mudge, R. O. King, R. H. Jamieson.

Non-resident Committee.—R. B. Rogers, Peterboro, O.; A. A. Cole, Rossland, B.C.; W. P. Laurie, Quebec, Q.; W. G. Smart, Sherbrooke, Q.; J. K. Scammell, Fairville, N.B.; H. M. McKay, Pictou, N.S.; W. J. Bulman, Charlottetown, P.E.I.; O. S. Whiteside, Anthracite, N.W.T.; J. M. McGregor, Rossland, B.C.; E. H. Hamilton, Pueblo, Col., U.S.A.; P. N. Evans, Lafayette, Ind., U.S.A.; G. H. Frost, New York, U.S.A.; L. L. Street, Marlboro, Mass., U.S.A.

#### THE MCGILL MINING SOCIETY.

This Society was organized in 1891-2 by the Undergraduates of the Mining Department, but its scope has since been enlarged, and now any graduate or undergraduate interested in mining and allied work is eligible for membership. Meetings are held fortnightly for reading and discussion of papers quent lecture The primar Undergraduat become acqua an almost equ duates of the versity. The officers Hono P

Sec. The Commit from each yea session.

During the 1 with the object interest.

> The following Ho President, W.

1st Vice-Presi

2nd Vice-I

3rd Vice-

Second Year R

sion of papers on subjects of interest to the Society, and frequent lectures are given by outside professional men.

The primary object of the Society is of course to give the Undergraduates an opportunity to meet one another and to become acquainted with the older members of the Society, but an almost equal part of its work consists in keeping the graduates of the department in touch with the work of the University.

The officers for the year 1898-99 are :--

Honorary President, Dr. B. J. Harrington.

President, J. E. Preston, Sc., '99. Sec.-Treasurer, R. H. Gillean, Sc., '00.

The Committee consists of the officers and of two members from each year, who are elected at the beginning of the session.

# Applied Science Society.

During the last session this Society has been organized with the object of reading papers of technical and scientific interest.

The following are the officers:-

Hon. President, Prof. H. T. Bovey.

President, W. W. Colpitts, representing Civil Engineering and Architecture.

1st Vice-President, S. F. Kirkpatrick, representing Mining Engineering and Chemistry.

2nd Vice-President, R. M. Wilson, representing Electrical Engineering.

3rd Vice-President, J. S. Whyte, representing Mechanical Engineering.

Secretary, J. G. Glassco.

Treasurer, R. H. Gillean.

Second Year Representatives, B. S. McKenzie, P. Ogilvie.

TY.

a view to and the lves. The relating g an acmbership number the Gra-

iety may

, McGill

1, A. L.

oro, O.; ec, Q.; le, N.B.; ottetown, McGre-U.S.A.; w York,

> idergraas since uate iniemberdiscus-

# 153

# RESEARCH WORK IN THE LABORATORIES, 1897-98.

154

The following papers have been read before the Royal Societies of England and Canada, the British Association for the Advancement of Science, the Inst. of C.E. (England), the Can. Soc. C. E., and other learned Societies :--

"Report on observations of soil temperatures with electrical thermometers."

"Report on Canadian earthquakes, with a reproduction of the trace of the first automatic record taken in Canada at the McDonald Physics Building, March 27th, 1897."

"The Hydraulic Laboratory, McGill University, with results of experiments on the values of hydraulic coefficients."

"Some experiments on the flow of rocks."

"On the variation of the electromotive force of different forms of the Clarke Standard Cell, with temperature and with strength of solution, including determinations of the solubility of zinc sulphate, and of the density of its solution."

"A new electrical method of determining the specific heat of a liquid, with preliminary results of its application to the cases of water and mercury."

"On the behaviour of argon in X-Ray tubes."

"A research in thermo-electricity by means of the platinum resistance pyrometer."

"A simple modification of the Board of Trade form of the Clark Cell, with application to the Cadmium Cell."

"A new form of Hysteresis Tester."

"On the effect of temperature on the magnetic properties of iron."

"On the absolute measurement of the Thomson effect in copper."

"On the variation of the viscosity of gases with temperature."

"On the variation of the specific heat of water."

"An electrical method of measuring the temperature of a surface on which steam is condensing."

"On the law of condensation of steam, deduced from measurements of temperature cycles of the walls and steam, in the cylinder of a steam engine, including determinations of the electrical and thermal properties of cast iron."

"A new apparatus or studying the rate of condensation of steam on a metal surface at different temperatures and pressures."

"On the strength of Canadian timbers, Douglas fir, red pine, white pine and hemlock."

SATURDAY. Shopwork Do Mathematics FRIDAY. Mathematics Mathematic THURSDAY. WEDNESDAY. Mathematics Mathematic Mathematics Mathematics TUESDAY. English Desc. Mechanic: Mathematics, Mathematics MONDAY. Hours. 10 6 EARS EST YEAR.

TABLE TABLE

APPLIED

897-98.

Societies vancement L. E., and

rical ther-

on of the McDonald

ilts of ex-

ent forms rength of sulphate,

cases of inum re-

heat of a

the Clark of iron."

copper." rature."

a surface

measurecylinder rical and

of steam s."

ed pine,

YEAR	YEARS HOURS.	Monday.	TUESDAY.	WEDNESDAY.	THURSDAV.	FRIDAV.	SATURDAY.
	6	Mathematics.	Mathematics.	Mathematics,	Mathematics.	Mathematics.	Shopwork.
EAR.	10	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Do
Y TEA	11	Desc. Mechanics.	English.	Drawing.	Drawing.	English.	Do
E	12	Chemistry.		Chemistry.	Drawing.	Chemistry.	Do
	2 to 5	Practical Chemistry. Geom. Drawing. (9).	F ract, Chemistry. Shopwork.	Geom. Drawing(a). Mathematical Lab. $(b)$ .	Freehand Drawing.	Pract. Chemistry. Workshop.	
	6	Mathematics.	Mathematics.	Architecture, 1.	Mathematics,	Mining, (a). Metallurgy, (b). Freeband Drawirg, 1.	Drawing, 1, 5.
.8.	10	Physical Laboratory, 2, 5, 6. Freehanu Drawing, 1.	Drawing, 1.	Mathematics.	Chemistry, 6. Kinematics, 3, 4. Surveying, 1, 2, 5.	Freehand Drawing, 1.	Do
AD XE	11	Do	Drawing, 1.	Botany, 6. Mathematics.	Kinematics, 3, 4. Zoology, 5.	Mathematics.	Do
RECOL	12	1 heory of Architecture. Botany, 6.	Exp. Physics, <sup>1</sup> , <sup>2</sup> , <sup>3</sup> , 4, 5, Chemistry, 6,	Surveying, 1, 2, 5. Kinematics, 3, 4.	Experimental Physics.	Chemistry, 5, 6. Architecture, 1.	Do
	2 to 5	*Chemical Lab., 5, 6. Mapping, (a) 1, 2. Shopwork, 3, 4. Drawing (b), 1.	Desc. Geometry, $(c)$ $(b)$ 1, 2, 3, 4, 5, 6.	* Chemicai Lab., 5, 6. Niechl. Drawing, 3, 4. Shopwork, 1, 2.	Chemical Lab, 6. Drawing, 1. Mapping, 2, 5. Shopwork, 3, 4.	Physical Laboratory.3.4. Shopwork, 1, 5.	

Ð

Mining ŝ Engineering Students. 4. Mechanical Electrical Engineering Students. ŝ 9 a.m. to 5 p.m. t. Architectural Students. 2. Civil Engineering Students. Engineering Students. 6. Practical Chemistry Students. FACULTY OF APPLIED SCIENCE--TIME TABLE-Continued.

MATTHEW H Hon. J. Emi Hon. Mr. Ju

F. P. WALTC of Ron Hon. C. A. A. McGoun, T. Fortin, I Hon. Mr. Ju W. de M. M E. LAFLEUR, Hon. Mr. JUS D. MACMASTE Th

P. C. RYAN, Aime Geoffri Gordon W. M

The Curriculun courses of lectures Province of Quebe tory, and the Co of the Dominion comprehensive leg to practise at the I the attention of Stu Law, and to its h

Faculty of Law.

THE PRINCIPAL : Ex Officio.

PROFESSORS EMERITI.

MATTHEW HUTCHINSON, D.C.L. HON. J. EMERY ROBIDOUX, D.C.L. HON. MR. JUSTICE WURTELE, D.C.L.

#### Professors.

F. P. WALTON, B.A. (Oxon.), LL.B. (Edin.), Gale Professor of Roman Law, and Dean of the Faculty.

HON. C. A. GEOFFRION, Q. C., D.C.L., P.C.

A. McGoun, M.A., B.C.L.

T. FORTIN, LL.L., D.C.L.

HON. MR. JUSTICE DOHERTY, D.C.L.

Professors of Civil Law.

W. DE M. MARLER, B.A., D.C.L.

E. LAFLEUR, B.A., B.C.L., Professor of International Law.
HON. MR. JUSTICE DAVIDSON, D.C.L., Professor of CriminalLaw.
D. MACMASTER, Q.C., D.C.L., Professor of Commercial Law. The above constitute the Faculty.

#### LECTURERS.

P. C. RYAN, B.C.L. Aime Geoffrion, B.C.L. Gordon W. Macdougall, B.C.L.

The Curriculum extends over three years. It includes courses of lectures upon all the branches of the Law of the Province of Quebec, and also upon Roman Law, Legal History, and the Constitutional Law of the Empire and of the Dominion. Its primary design is to afford a comprehensive legal education for Students who intend to practise at the Bar of Lower Canada. In all the courses the attention of Students will be directed to the sources of the Law, and to its historical development. During their first

Do

jo jo

Desc. Elect. Eng 1, 2, 3, 4, 5.

> Mech. Lab., Physical Lab.

Metallurgy, 5, 6.

21

ł

÷

Chemical Lab., 5, 6. Designing, 1, 2, 3, 4:

10

2 to

year the students will attend a course of one hundred lectures on Roman Law, from which the Law of the Province is in great part derived. In the lectures on Legal History the relations of our Law with the Law of France and its History since the Cession will be explained. First Year Students will also attend courses on the Law of Persons; the Law of Real Estate; the Law of Obligations; the Law of Successions, Abintestate and Testamentary; and the Elementary rules of Procedure. The remaining branches of the law, civil, commercial and criminal, will be dealt with in the Second and Third Years. During the three years' course the civil code, the criminal code and the code of civil procedure will be covered and lectures will also be given upon subjects such as Bills of Exchange, Merchant Shipping, and Banking, which are regulated mainly by special statutes.

Students have the free use of the Law Library of the Faculty. This includes the law libraries of the late F. Griffin, Esq., Q.C., Mr. Chancellor Day, Mr. Justice MacKay and Mr. Justice Torrance. Many new books have been added, and the principal reports and legal periodicals are taken. A special room for Law Students is provided in the Redpath Library. This room is open during the day and in the evenings from eight to ten o'clock.

The lectures are delivered in the rooms furnished for the Faculty in the East Wing of McGill College by its munificent benefactor, W. C. McDonald, Esq. The Faculty desire to impress upon English students the great importance of obtaining a familiar knowledge of French. In the practice of the profession in this Province it is almost indispensable that a lawyer shall be able to write and speak French, and to understand it when it is spoken. Gentlemen who intend to become students of law are urged to pay special attention to this subject. The courses of lectures in the Faculty by Professor Fortin and Mr. Aimé Geoffrion, will be delivered in the French language.

Those students who are able to take the B.A. course before entering upon their legal studies are strongly recommended to do vised to atten years. The require

found below i

Various scho dents of each Examinations No scholarsl student unless high standing

Matriculated are classed as ceed to the De Occasional S particular series Students who and have passed upon the certifi the Degree of 1

I. Any person d apply to the Secre in the Register of triculation and tick of the Course.

2. The Degree of University; or a ce the Bar for admiss

158

ed lectures vince is in istory the ts History idents will w of Real isions, Ables of Pro-, commerand Third code, the pe covered h as Bills which are

> of the Fa-F. Griffin, cKay and en added, taken. A : Redpath the even-

ed for the nunificent sire to imof obtainice of the ble that a to undernd to betention to y by Prolivered in

> ourse bely recom

159

mended to do so. Those for whom this is impossible are advised to attend the courses in the Faculty of Arts for two years.

The requirements for Matriculation in the Faculty will be found below in the Faculty Regulations.

### SCHOLARSHIPS AND PRIZES.

Various scholarships and prizes will be awarded to the students of each year who obtain the highest distinction at the Examinations in April, 1899.

No scholarship or prize shall, however, be awarded to any student unless in the estimation of the Faculty, a sufficiently high standing be attained to merit it.

#### CLASSIFICATION OF STUDENTS.

Matriculated Students who do not take the whole course are classed as Partial Students, and are not entitled to proceed to the Degree of B.C.L.

Occasional Students will be admitted for attendance on any particular series of Lectures without matriculation.

Students who have completed their course of three years, and have passed a satisfactory examination, will be entitled, upon the certificate and recommendation of the Faculty, to the Degree of Bachelor of Civil Law.

### FACULTY REGULATIONS.

I. Any person desirous of becoming a Matriculated Student may apply to the Secretary of the University for examination and entry in the Register of Matriculation, and may procure a ticket of Matriculation and tickets of admission to the Lectures for each Session of the Course.

2. The Degree of B.A. obtained from any Canadian or other British University; or a certificate of having passed the examination before the Bar for admission to study Law in the Province of Quebec; or the intermediate Examination in the Faculty of Arts in McGill University, will be accepted in lieu of examination for Matriculation in this Faculty. For other candidates the Matriculation Examination this year will be in the following subjects :-- \*

Latin .-- Virgil, Aeneid, Book I.; Cicero, Orations I. and II. against

Catiline, Latin Grammar.

Candidates will be expected to be able to translate a simple passage at sight.

French.—De Fivas' "Grammaire des Grammaires ;" \*Moliere, "Le Bourgeois Gentilhomme"; †Translation into French of Macaulay's Essay on Frederick the Great.

Candidates must be able to translate French easily, and must have some familiarity with the spoken language.

Exercises in Composition and Grammatical Analysis, in English and French.

Mathematics.—Arithmetic; Algebra to the end of Simple Equations; Euclid, Books I., II., III.

History.—White's Outline of Universal History (or any equivalent manual); \*Green's Short History of the English People; Miles' School History of Canada; †Duruy, Histoire de France.

Literature.—\*Collier's Biographical History of English Literature; †Laharpe Course de Littérature; †Lefranc, Course de Littérature.

Rhetoric .-- Whately's Rhetoric ; Blair's Lectures (small edition).

Philosophy.—Whately's Logic; †Logique de Port Royal; †Cousin, Histoire de la Philosophie; \* Stewart's Outline of Moral Philosophy.

N.B.—The works mentioned above preceded by an asterisk are for English Students only. Those preceded by a cross are for French Students only. The remainder are for both English and French.

The Examination will be held on the first day of the Session at 10 a.m.

3. Students of Law shall be known as of the First, Second and Third Years, and shall be so graded by the Faculty. In each year, Students shall take the studies fixed for that year, and those only, unless by special permission of the Faculty.

4. The register of Matriculation shall be closed on the 1st October in each year, and return thereof shall be immediately made by the Dean to the Registrar of the University. Candidates applying thereafter may be admitted on a special examination to be determined by the Faculty; and, if admitted, their names shall be returned in a supplementary list to the Registrar. 5. Persons desir the Dean of the obtain a ticket or 6. Students who other Universities mitted, on the pro-

University. 7. All students attendance and cor

(a) Gowns must in the College bui

(b) A class-book which the presence and the Faculty sh which Students sha their attendance to respective classes.

(c) Punctual atter quired of each stud diately on the com names of Students are assigned. Abser attention or disorder tion by the Professo who may reprimand decide. While in the expected to conduct Class-rooms. Any Class-rooms, or elsev and, if necessary, rej

(d) When Student rules, the Faculty m disqualify from compor or report to the Com

(e) Any Student in to repair the same at ject to such penalty

(f) The number of shall disqualify for the determined by the F Gill Unilation in mination

.

a simple

ere, "Le rench of

and must

lish and

juations;

juivalent People ; toire de

erature ; urse de

on). †Cousin, of Moral

rare for French ench. ssion at

ond and ch year, se only,

at Octonade by applying ermined ned in a 5. Persons desirous of entering as Partial Students shall apply to the Dean of the Faculty for admission as such Students, and shall obtain a ticket or tickets for the class or classes they desire to attend.

6. Students who have attended collegiate courses of legal study in other Universities for a number of terms or sessions may be admitted, on the production of certificates, to a like standing in this University.

7. All students shall be subject to the following regulations for attendance and conduct :---

(a) Gowns must be worn during attendance at lectures and when in the College building.

(b) A class-book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted, and the Faculty shall, after examination of such class-book, decide which Students shall be deemed to have been sufficiently regular in their attendance to entitle them to proceed to the examination in the respective classes.

(c) Punctual attendance on all the classes proper to his year is required of each student. Professors will note the attendance immediately on the commencement of their lectures, and will omit the names of Students entering thereafter, unless satisfactory reasons are assigned. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class-room, if persisted in after admonition by the Professor, will be reported to the Dean of the Faculty, who may reprimand the Student or report to the Faculty as he may decide. While in the building, or going to and from it, Students are expected to conduct themselves in the same orderly manner as in the Class-rooms. Any Professor observing improper conduct in the Class-rooms, or elsewhere in the building, will admonish the Student, and, if necessary, report him to the Dean.

(d) When Students are reported to the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes or honours, suspend from classes, or report to the Corporation for expulsion.

(e) Any Student injuring the furniture or building will be required to repair the same at his own expense, and will, in addition, be subject to such penalty as the Faculty may see fit to impose.

(f) The number ct times of absence, from necessity or duty, that shall disqualify for the keeping of a Session, shall in each case be determined by the Faculty.

L

161

(g) All cases of discipline involving the interests of more than one Faculty, or of the University generally, shall be reported to the Principal, or, in his absence, to the Vice-Principal.

8. The College year shall be divided into two terms, the first extending to the Christmas vacation, and the second from the expiration of the Christmas vacation to the end of April following.

The lectures will be delivered between the hours of half-past eight and half-past nine in the morning, and between four and half-past six in the afternoon; and special lectures in the evening, at such hours and in such order as shall be determined by the Faculty. Professors shall have the right to substitute an examination for any such lecture.

9. At the end of each College year there shall be a general examination of all the classes, under the superintendence of the Professors, and of such other examiners as may be appointed by the Corporation. The examination shall be conducted by means of printed questions, answered by the Students in writing in the presence of the Examiners. The result shall be reported as early as possible to the Faculty.

After the examinations, the Faculty shall decide the general standing of the Students.

10. At the end of the third College year there shall be a Final Examination of those students who have completed the Curriculum. This Examination shall be conducted partly by written papers and partly orally. It shall cover all the subjects upon which lectures have been delivered during the three years' course. Those Students who satisfy the examiners shall be entitled, after making the necessary declaration and payment of the Graduation Fee, to proceed to the Degree of B.C.L. The Elizabeth Torrance Gold Medal shall be awarded to the Student who shall obtain the highest marks in the Examination, providing his answers shall, in the estimation of the Faculty, be of sufficient merit to entitle him to this distinction. There shall be no Sessional Examination of Students who are candidates in the Final Examination.

11. 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.

<sup>12.</sup> The Faculty shall have the power, upon special and sufficient cause shown, to grant a dispensation to any Student from attendance on any particular Course or Courses of Lectures, but no distinction shall in consequence be made between the Examinations of such Students and those of the Students regularly attending Lectures.

13. Eve make the

Ego A. diosum fo ut ejus de laureatus i

> 14. The lating after Matriculati Sessional H Grounds F Graduation

fellows... Fee for ea Sessional F Law, \$20 Law, and

courses... Students ma Sessional

Matriculat Ist; and, if n his name sh lectures shal been paid. not be require

15. Partial shall be arra 16. The rec D.C.L. in co

Tuesday, 6th begin.

Friday, 9th I tary of Se inations fo vince of ( Monday, 9th J Tuesday, 10th Friday, 28th A more than one ted to the Prin-

is, the first exn the expiration ng.

i half-past eight nd half-past six , at such hours lty. Professors ny such lecture. eneral examinathe Professors, he Corporation. inted questions, of the Examto the Faculty. e the general

be a Final Exhe Curriculum. ten papers and which lectures Those Students ig the necessary proceed to the Medal shall be t marks in the timation of the tinction. There re candidates in

Session unless tures, and shall isfaction of the

ul and sufficient rom attendance t no distinction lations of such ng Lectures. 13. Every Candidate, before receiving the Degree of B.C.L., shall make the following declaration :--

Ego A.B. polliceor sancteque recipio, me, pro meis viribus, studiosum fore communis hujus Universitatis boni, et operam daturum ut ejus decus et dignitatem promoveam, et officiis omnibus ad Baccalaureatus in Jure Civili gradum pertinentibus fungar.

14. The fees in the Faculty will be as follows for Students matriculating after Nov., 1897:-

Matriculation or Registration Fee\$ 5 00
Sessional Fee by Ordinary Students (including Grounds Fee) 52 00
Grounds Fee, payable by Partial Students 2 00
Graduation Fee, including registration as voter in election of
fellows 12 50
Fee for each supplemental examination 5 00
Sessional Fee by Partial Students, for the course of Roman Law, \$20; for each of the courses on Successions, Criminal
Law, and Civil Procedure, \$15; and for each one of the shorter courses
Students matriculated before Nov., 1897, will continue to pay a
Sessional fee of
Matriculation and Sessional Fees must be paid on or before Oct.
ist; and, if not so paid, the Student in default shall incur a fine of \$3;
his name shall be removed from the books; and his attendance at
lectures shall not be credited until his fees and the said fine have
been paid. Students already on the books of the University shall not be required to pay any Matriculation Fee.
not be required to put any manufacture

15. Partial Students may be admitted into class on such terms as shall be arranged by the Faculty.

16. The requirements and conditions for obtaining the Degree of D.C.L. in course can be ascertained upon application to the Dean.

#### SYLLABUS.

Tuesday, 6th September, 1898, Matriculation, Ordinary Lectures begin.

Friday, oth December. Last day for notice to be sent to Secretary of Section of the Bar by candidates at the January Examinations for admission to study or to practice Law in the Province of Quebec.

Monday, 9th January, 1898. Lectures, Second Term, begin. Tuesday, 10th January. Bar Examinations take place at Montreal. Friday, 28th April. Convocation for Legrees in Law.

# Saturday, 3rd June. Last day for notice to be sent to Secretary of Section of the Bar by Candidates at the July Examination for admission to study or to practice Law in the Province of Quebec.

EXAMINATIONS.

Tuesday, 4th July. Bar Examinations take place at Quebec.

The date of the several Examinations will be announced during the session.

#### APPENDIX.

The attention of intending Students is called to the following provisions of the Revised Statutes of Quebec and amendments, as bearing on the requirements for the study and practice of Law in the Province.

Article 3544 R.S.Q. Examinations for admission to study and to practice law in the Province of Quebec are held at the time and place determined by the General Council.

The places and dates as at present fixed are :

#### MONTREAL.....Tuesday, 10th Jan., 1899. QUEBEC.....Tuesday, 4th July, 1899.

and alternately in Montreal and Quebec every six months, namely at Montreal on the second Tuesday of each January, and at Quebec on the first Tuesday of each July.

All information concerning these examinations can be obtained from the General Secretary's Office. The present General Secretary is Arthur Globensky, Esq., Montreal.

Article 3546.—Candidates must give notice as prescribed by this article at least one month before the time fixed for the examination to the Secretary of the Section in which he resides, or in which he has resided for the last six months.

The present Secretary of the Montreal Section is L. E. Bernard, Esq., New York Life Building, Montreal.

Article 3503a.—Added by Statute of Quebec, 53 Victoria (1890), Cap. 45, provides that Candidates holding the diploma of Bachelor of Arts, Bachelier-es-Lettres, or Bachelier-es-Science 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 3 On giving the Secreta to study, o is returned Article 3 to practice studied reg hours, und a practicing of the certi Three Year course in a degree in la

The Bythe Provir Feb., 1892

#### PROGR

Art. 42.at a Unive degree con shall be he only when the student programme apply to stu be given at

2. The s number of course of le as follows :-

This subj Law and th of Justinian

#### 164

Secretary of amination for ice of Quebec. uebec.

ed during the

o the followand amenddy and prac-

to study and the time and

nths, namely-, and at Que-

n be obtained ieral Secretary

cribed by this ne examination or in which he

L. E. Bernard,

'ictoria (1890), of Bachelor of from a Canhe examination ed to give the 165

Article 3548 R.S.Q. (as altered by by-law of the General Council). On giving the notice prescribed by Article 3546, the Candidate pays the Secretary a fee of \$2, and makes a deposit of \$30 for admission to study, or of \$70 for admission to practice, which deposit, less \$10, is returned in case of his not being admitted.

Article 3552 (amended 1894, Q. 57 Vic., c. 35).—To be admitted to practice, the Student must be a British subject, and must have studied regularly and without interruption during ordinary office hours, under indentures before a Notary as Clerk, or Student with a practicing Advocate, during Four Years, dating from the registration of the certificate of admission to study. This term is reduced to Three Years in the case of a student who has followed a regular law course in a University or College in this Province and taken a degree in law therein.

The By-Laws passed by the General Council of the Bar of the Province of Quebec, 16th Sept., 1886, and amended 10th Feb., 1892, provide as follows:—-

# PROGRAMME FOR UNIVERSITY COURSE OF LECTURES ON LAW.

Art. 42.—A course of lectures on law given and followed at a University or College in this Province, and a diploma or degree conferred on students by such university or college, shall be held to be such as contemplated in art. 3552, R.S.Q., only when the university or college conferring the degree and the student who receives it shall have efficiently followed the programme herein set forth. This article and article 44 shall apply to students alrea ly admitted only as regards lectures to be given after the 1st of January, 1887.

2. The subjects on which lectures shall be given, and the number of lectures required on each subject for a regular course of lectures on law in a university or college shall be as follows :---

ROMAN LAW:-103 Lectures.

This subject shal' 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 organisation of the Civil Courts of this Province and the history of the different judicial systems of the country; also, the special modes of procedure provided by statutes and laws of general application.

J

# 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, organisation 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 th in the fore years. The for courses Art. 44.gree in law they find th gramme ab

# 3 Lectures.

three years. an law, the of the Pronmerce and

t least two comments amending ovince and le country; tatutes and

Lectures.

w in Canprocedure, relation of land. The

Lectures. nt political untry, the Parliament on and the

ree in law 1 produce, or Rector y followed least three and such ic lectures

#### 167

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 of 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.

# REQUIREMENTS FOR DEGREE OF DOCTOR OF CIVIL LAW.

168

#### Adopted October, 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 candidate shall also pay to the Secretary of the Faculty, annually during the period of twelve years, for the retention of his name on the books of the Faculty, a fee of two dollars, to form part of the Library Fund of the Faculty. Upon cause shown, however, and with the consent of the Faculty, such fees may be paid at one time before the granting of the degree.

The Examination for the Degree of D.C.L. in Course, which shall be open to all who have taken the degree of B.C.L. of this University in the past, as well as to such as may take the degree in future, shall, until changed, be on the following subjects and authors, with the requirement of special proficiency in some one of the groups below indicated. In the groups other than the one selected by the Candidate for special proficiency, a thorough acquaintance with two works of each group shall be sufficient, including in all cases the work first mentioned in each group and the first two works in group third. Phillime Hall, Wharton Savigny Foelix, Brocher Dicey on Story, C Maine,

Ortolan' Momms Roby's 1 Muirhea Mackena Savigny' Bryce's Institute Fustel d

Dicey's Stubbs, ( Hearn, ( Bagehot, Franquey Gneist, ( Hallam, ( May, Gardiner May, De Freeman

Mill, Ret

Bentham.

Maine, P

#### OCTOR OF

Course must standing, and D.C.L. as shall also, at least deliver to the or Treatise of or approved by an fifty octavo egree of merit nem in recom-

of the Faculty, the retention of two dollars, culty. Upon f the Faculty, ranting of the

. in Course, the degree of as to such as ged, be on the ement of speindicated. In Candidate for th two works all cases the st two works

#### 169

### I. INTERNATIONAL LAW.

Phillimore, International Law.
Hall, """
Wharton, Conflict of Laws.
Savigny's International Law, by Guthrie.
Foelix, Droit International Privé.
Brocher, Droit International Privé.
Dicey on Domicile.
Story, Conflict of Laws.
Maine, Lectures on International Law.

#### 2. ROMAN LAW.

Ortolan's Institutes. Mommsen's History of Rome. Roby's Introduction to the Digest. Muirhead's Roman Law. Mackenzie's Roman Law. Savigny's Roman Law in the Middle Ages. Bryce's Holy Roman Empire. Institutes of Gaius. Fustel de Coulanges, La Cité Antique.

3. CONSTITUTIONAL HISTORY AND LAW. Dicey's Law of the Constitution. Stubbs, Constitutional History of England. Hearn, Government of England. Bagehot, English Constitution. Franqueville, Gouvernement et Parlement Britanniques. Gneist, Constitution of England. Hallam, Constitutional History of England. May, """" Gardiner, """" May, Democracy in Europe. Freeman, Growth of the English Constitution. Mill, Representative Government. Bentham, Fragment on Government. Maine, Popular Government.

# 4. CONSTITUTION OF CANADA AND WORKS RELEVANT THERETO.

Todd, Parliament Government in the British Colonies.
Bourinot, Federal Government in Canada.
Doutre, Constitution of Canada.
Cartwright, Cases under the British North America Act.
Lord Durham's Report on British North America.
Lareau, Histoire du Droit Canadian.
Houston's Constitutional Documents of Canada.
Volume O., Statutes of Lower Canada.
Masères' Collection of Quebec Commissions.
Laferrière, Essai sur l'Histoire du Droit Français.
Dilke, Problems of Greater Britain.
Matthews (Jehu), A Colonist on the Colonial Question.
Bryce, American Commonwealth.
Curtis, History of the Constitutional of the United States.
Cooley, Principles of Constitutional Law.

5. CRIMINAL LAW, JURISPRUDENCE, AND POLITICAL SCIENCE.

Stephens, History of the Criminal Law.
Blackstone, Vol. IV.
Harris, Principles of Criminal Law.
Pike, History of Crime.
Holland, Elements of Jurisprudence.
Austin, Lectures, omitting chapters on Utilitarianism.
Lorimer's Institutes.
Amos, Science of Law.
Woolsey, Political Ethics.
Lieber, Political Ethics.
Freeman, Comparative Politics.
Aristotle's Politics, by Jowett.

COURSE

The co During th early peric The sourc evolution ( came fitter sketch will first period In the d uarian inte of the Ron the existing nus and H in detail, a be noticed. time, and a two studen tions. Text-boo

Books of Maine's Muirhead Muirhead Maynz, C Puchta, 1

This subj twenty lectu Part I. w of the Britis

# COURSES IN THE FACULTY OF LAW FOR 1898-99.

171

# ROMAN LAW.

### Frofessor Walton.

The course will consist of about one hundred lectures. During the first part the external history of the law from the early period to the codification of Justinian, will be dealt with. The sources of the law will be described, and the gradual evolution explained, by which the law of the city of Rome became fitted to be the law of the civilized world. A brief sketch will be given of the legal institutions of Rome in the first period and of the early constitutional history.

In the doctrinal part of the course matters mainly of antiquarian interest will be touched only slightly. Those portions of the Roman Law which have been followed most closely in the existing law of the Province, e. g. Things, Servitudes, Pignus and Hypothec, Contracts, Obligations, will be treated in detail, and the modifications made by the modern law will be noticed. Class-examinations will be held from time to time, and a first and second prize of books will be given to the two students who obtain the highest marks in these examinations.

Text-book, Moyle's or Sandar's Institutes of Justinian. Books of Reference.

Maine's Ancient Law.

Muirhead's Historical Introduction to Roman Law. Muirhead's Institutes of Gaius.

Maynz, Cours de Droit Romain.

Puchta, Institutionen.

#### CONSTITUTIONAL LAW.

#### Professor Walton.

This subject will be divided into two courses of about twenty lectures each.

Part I. will consist of a sketch of the Constitutional Law of the British Empire. The subject will be considered in the

KS

nies.

ca Act.

tion.

States.

SCIENCE.

sm.

following order: (I) the executive power; (2) the legislative power; (3) the rights and liberties of the subject. Under (I) the power of the sovereign, of the Privy Council, of the great officers of state, and of Parliament, will be discussed. Under (2) the process of legislation in the Imperial Parliament will be explained. Under (3) will fall the right to trial by jury, Habeas Corpus, and the constitutional limitations of the power of the Crown. Afterwards the following topics among others will be dealt with. Liability, Civil and Criminal, of Governors of Colonies, Naval and Military officers, and of Judges for their official conduct.

After treating of the actual law of the constitution the "conventions of the constitution" will be taken up. Under this head will fall a description of the history and functions of the Cabinet, of the means of adjusting differences between the Sovereign and the two Houses, and between the two Houses themselves, and of the kind of circumstances, under which it is usual for ministers to resign. If time permits the course will conclude with a comparison of the British Constitution with the Constitution of the United States.

Part I. will be given to First Year Students. No textbook is prescribed, but students are recommended to refer to Dicey, Law of the Constitution; Anson, Law and Custom of the Constitution; and Bagehot, The English Constitution.

Part II. will not be delivered this year. It will consist of a sketch of the Constitution of Canada.

# LEGAL HISTORY AND BIBLIOGRAPHY.

#### Professor McGoun.

This course comprises an outline of the history of the law in force in the Province of Quebec.

The main sources from which this law are derived are the Customary Law of France, as modified by the principles of Roman Law as embodied in several of the codes or collections of Roman Law before the time of Justinian. The Customs of France after being reduced to writing, were further modified vailed thr of the Fr from Cuja Law of F introduced the most formally t ordinance Since th Lower Ca the Civil ed early it same line Lower Ca commercia vince. Cr almost exc The lead with the re the attenti

LAW OF

This con on Agenc: nected, by of Compan a species upon a larg nership. 7 which it a portance, v number of other hand lished by la he legislative Under (1) uncil, of the be discussed. berial Parliaright to trial imitations of owing topics vil and Critary officers,

the conill be taken history and differences nd between cumstances, If time perof the Britited States. No textl to refer to Custom of onstitution. consist of a

of the law

lerived are principles or collec-The Cusere further 173

modified by the influence of modern Roman Law, which prevailed throughout the larger part of France. The ordinances of the French kings and the commentaries of the great jurists from Cujas and Dumoulin down to Pothier brought the Civil Law of France into the systematic form into which it was introduced into this Province. The custom of Paris, one of the most important of those recognized in France, became formally the basis of the Civil Law in this country, and the ordinance of 1667 was the main authority for procedure.

Since the opening of the British régime the development of Lower Canadian Civil Law has proceeded independently of the Civil Law of France, where the Code Napoléon was passed early in the Century. In Lower Canada a code on the same lines was adopted shortly before the Confederation. Lower Canadian Law has been modified by English law in commercial matters, and also by statutes passed in the Province. Criminal Law, on the other hand, has been derived almost exclusively from the Criminal Law of England.

The leading authorities upon the main branches of the law with the reports of decisions of our courts, are brought under the attention of the students in this course.

#### LAW OF CORPORATIONS AND OF JOINT STOCK COMPANIES.

# Professor McGoun.

This course is the sequel on the one hand, of the course on Agency and Partnership, with which it is closely connected, by reason of the facilities given in the Incorporation of Companies to the undertaking of important enterprises, by a species of partnership or association between individuals upon a larger scale than can be undertaken in a simple partnership. The doctrine of limited liability and the opportunity which it affords for carrying out enterprises of great importance, with combinations of capital derived from a large number of individuals, is treated of in this course. On the other hand, 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, and the relation between these corporations and the ordinary forms of joint stock companies. Corporations sole and Corporations aggregate are defined, and the principles of laws relating to Corporations and Companies explained, and the authors who treat of these principles, and who trace the limits of the powers and authority of such corporations, are brought under the notice of the students.

# CRIMINAL LAW.

#### Professor Mr. Justice Davidson.

This course includes:-

A history of the Criminal Law and Criminal Procedure of England; and of their introduction into and development throughout Canada;

Discussion of the Criminal Code and other Statutes enacting criminal offences; of the rules of evidence in criminal cases, of the Fugitive Offenders Act; of extradition, and generally of the principal features belonging to the Criminal Law of the Dominion.

### COMMERCIAL LAW.

#### Professor Macmaster.

The course on carriers will cover:

- I. Carriers: contracts with:
  - (a) Affreightment.
  - (b) Merchant Shipping.
  - (c) Bottomry and Respondentia.

#### The course on Insurance will cover:

- 2. Insurance contracts of:
  - (a) Marine Insurance.
  - (b) Fire Insurance.
  - (c) Life Insurance.

The a covers a Year Cc capias, a special p tions and of pleadi will be d each alte

This cc form an kinds of a diction of The rev Quebec is

Two co

The Lav The cou the whole of Third Booi Code in de is also extions and the orations sole he principles es explained, id who trace corporations,

Procedure of levelopment

tutes enactin criminal n, and genriminal Law

### 175

CIVIL PROCEDURE.

Mr. Percy C. Ryan.

The advanced course for the Second and Third Years covers all matters of procedure not dealt with in the First Year Course, and includes Provisional Remedies, such as capias, attachment before judgment, injunction, etc., and special proceedings, such as proceedings relating to corporations and public offices, mandamus, etc., as well as the rules of pleading in the more complicated classes of action. It will be divided into two parts, one of which will be taken in each alternate year.

CIVIL PROCEDURE.

Mr. Gordon W. Macdougall.

This course to the students of the First Year is intended to form an introduction to the subject, to explain the simpler kinds of actions, the general rules of pleading, and the jurisdiction of the several courts.

The revised Code of Civil Procedure for the Province of Quebec is the text-book.

PRESCRIPTION AND LEASE.

Professor Fortin.

Two courses.

#### SUCCESSIONS.

Professor Mr. Justice Doherty.

The Law of Succession.

The course consists of a commentary and explanation of the whole of Title I., and the third Chapter of Title II.of the Third Book of the Civil Code. The order followed by the Code in dealing with the different matters, coming within the scope of this course, has however been departed from with a view to presenting to the Student the Law governing successions as one whole. The subject will be developed as nearly as possible in the following order :--

1. General notions, definitions and divisions of the subject. The Testamentary Succession. The Ab-Intestate Succession.

2. Rules of Law common to both Successions.

3. Rules peculiar to the Testamentary Succession.

4. Rules peculiar to the Ab-Intestate Succession.

5. Partition of the Succession (and of property held in undivided ownership generally), its incidents and effects.

#### OBLIGATIONS.

#### Mr. Aimé Geoffrion.

This course of lectures will consist of a commentary on the title on obligations in the Civil Code, less the chapter of proof articles 982 to 1,202 inclusive. Our law on the subject will be compared with the old French law and the modern French law; and its general principles will be explained and illustrated. In the second year course some of the more difficult parts of the subject will be taken up more minutely and lectures will be given on the law of evidence.

REAL RIGHTS REGISTRATION AND NOTARIAL LAW.

Professor Marler.

Two courses.

#### PUBLIC INTERNATIONAL LAW.

#### Professor Lafleur.

Sovereignty and equality of Independent States. Recognition of Belligerency and Independence. Justifiable grounds of intervention. Modes of territorial acquisition. iality. T ity of Sta band. C N.B.— Treaties, tions, in

Distinc Sources of plication law in reg parisons France, a

Note. deliver a fixed in tl from with a ing succesid as nearly

the subject. ate Succes-

ion. n. held in uncts.

ary on the chapter of the subject he modern lained and the more e minutely

LAW.

States. Justiorial ac-

## 177

quisition. 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. N.B.—The students' attention will be specially directed to

Treaties, Diplomatic Relations, and International Arbitrations, in which Canada is directly concerned.

# PRIVATE INTERNATIONAL LAW.

### Professor Lafleur.

Distinction between the *a priori* and positive methods. Sources of the positive law of Quebec on the subjects. Application and illustration of the rules for solving conflicts of law in regard to the different titles of the Civil Code. Comparisons between our jurisprudence and that of England, France, and Germany.

Note.—The Hon. Mr. Justice Hall has kindly consented to deliver a lecture in the Faculty, upon a day to be afterwards fixed in the early part of next session.

beat Kaylin

# TIME TABLE.

178

# FIRST YEAR STUDENTS, 1898-99.

TUESDAY, 6TH SEPT., TO FRIDAY, 4TH NOV., 9 WEEKS.

Hours.	Monday	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	Succession, Prof. Mr. Justice Doherty.	Procedure. Mr. Gordon Macdougall.	Succ.	Procedure.	Succ.
4.00	Roman Law. The Dean.	Rom.	Rom.	Rom.	Rom.
5.00	Legal History. Prof. McGoun.	Persons. Prot. Lafleur.	Hist.	Persons.	Hist.

N.B.-The lectures on Successions will not commence till Mon. 19 Sept.

MONDAY, 7TH NOV., TO FRIDAY, 16TH DEC., 6 WEEKS.

Hours.	MONDAY.	TURSDAY.	WEDNESDAY,	THURSDAY.	FRIDAY.
8.30	Succ.	Procedure.	Succ.	Proced.	Succ.
4.00	Rom.	Rom.	Rom.	Rom.	Rom.
5.00	Real Rights. Prof. Marler.	Persons. 2 wks. Obligations. 3 wks. Mr. A. Geoffrion	Real Rights.	Persons. 2 wks. Obligations. 3 wks.	Real Rights.

#### CHRISTMAS.

# MONDAY, 9TH JAN., TO FRIDAY, 10TH MARCH, 9 WEEKS.

Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	Succ. 5 wks.	Const. The Dean.	Succ.	Const.	Succ.
4.00	Rom.	Rom.	Rom.	Rom.	Rom.
5.00	Obligations. 7 wks.		Obligations.		Obligations.

# MONDAY, 13TH MARCH, TO FRIDAY, 31ST MARCH, 3 WEEKS.

Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30					
4.00	Rom.	Const.	Rom.	Const.	Rom.
5 00	Criminal Law. Prof. Mr. Justice Davidson.	Crim.	Crim.		Crim.
Succ Lega Pers	han Law ession al History ons Rights	50 " 25 "	Criminal	otal	25 lectures. 25 " 10 " 285

	T
Hours.	N
8.30	Ol Mr.
4.00	Pre
5.00	Crin Prof. D
	М
Hours.	N
8.30	Civ. M
4.00	Pro
5.00	Ci
	Mo
Hours.	M
8.30	(
4.00	Roma Suci Dean. Real F Regi Prof. 6 w
5.00	Pub. L Prof.
	MOND
Hours	s. Mo
8.30	C
4.00	R
5.00	Insu
Lea Cri Ca	porations al Rights escription ase minal rriers uurance

# 179 TIME TABLE.

K

0

# SECOND AND THIRD YEAR STUDENTS.

TUESDAY, 6TH SEPT., TO FRIDAY, 4TH NOV., 9 WEEKS.

Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY,
8.30	Obligations. Mr. A. Geoffrion		Obl.		Obl.
4.00	Prescription. Prof. Fortin.		Pres.		Pres.
5.00	Criminal Law. Prof. Mr. Justice Davidson.	Carriers. Prof. Macmaster	Crim.	Carr.	Crim.
	MONDAY, 7	тн Nov., то	FRIDAY, 16TH	I DEC., 6 WEI	EKS.
Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	Civ. Procedure. Mr. Ryan.		С. Р.		C. P.
4.00	Lease. Prof. Fortin.		Lease.		Lease.
5.00	Criminal.	Carriers.	Crim.	Carr.	Crim.
	MONDAY, 91	H JAN., TO FI	RIDAY, IOTH	MARCH, 9 WE	EKS.
Hours.	MONDAY.	I UESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	C. P.	Corporations. Prof. McGoun	С. Р.	Corp.	С. Р.
4.00	Roman Law of Succession. Dean. 3 weeks. Real Rights and Registration. Prof. Marler. 6 weeks.	Rom.	Rom. R. R.	Rom.	Rom. R. R.
5.00	Pub. Internat. Law. Prof. Lafleur.	Insurance. Prcf. Macmaster	P. I. L.	Ins.	P. I. L.
	MONDAY, 13T	н Максн, тэ	FRIDAY, 315	T MARCH, 3	WEEKS.
Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30	Corp.		Corp.		Corp.
4.00	R. R.		R. R.		R. R.
5.00	Insurance.		Ins,		Ins.
Real Prese Leas Crim Carri	riphts cription e	25         4           25         4           15         4           40         4           25         4	Internation Precedure. Roman		25 lectures. 25 " 40 " 15 "

EEKS.

ot. EKS. FRIDAY.

Succ.

Rom.

Hist.

FRIDAY.

Succ.

Rom.

Real Rights.

FRIDAY.

Succ.

Rom.

Obligations.

FRIDAY.

Rom.

Crim.

5 lectures. 5 " 5

TEEKS.

EKS.

# Faculty of Medicine.

THE PRINCIPAL (ex-officio.)

STEWART,

WILKINS,

MILLS,

PENHALLOW,

CAMERON,

RUTTAN,

BELL,

BLACKADER,

#### Projessors.

WRIGHT, MACCALLUM, CRAIK, GIRDWOOD, RODDICK, GARDNER, SHEPHERD, BULLER, Adami, Birkett, Alloway, Finley, Lafleur, Armstrong, Johnston.

Dean.—R. CRAIK, M.D., LL.D. Registrar.—R. F. RUTTAN, B.A., M.D., F.R.S.Can. Librarian.—F. G. FINLEY, B.A., M.D.

Director of Museum.-J. G. ADAMI, M.A., M.D., F.R.S. (EDIN.)

The Sixty-sixth Session of this Faculty will be opened on Tuesday, September 20th, 1898, by an introductory lecture at 3 p.m. The regular lectures in all subjects will begin on September 21st, at the hours specified in the time-table, and will be continued until May, 26th, 1899, when the annual examinations will begin.

The Medical School of McGili University was founded in 1822 as the "Montreal Medical Institution," by Drs. W. Robertson, W. Caldwell, A. F. Holmes, J. Stephenson and H. P. Loedel—all of them at the time members of the staff of the Montreal General Hospital.

Although founded in 1822, yet no session of the "Medical Institution" was held until 1824, when it opened with 25 students; in 1844, the number of students in the Faculty was 50; in 1851, 64, with 15 graduates ; in 1872-73, 154, with 35 graduates ; in 1892-93, 315, with 46 graduates ; in 1894-95, 403, with 54 graduates ; in 1895-96, 419, with 90 graduates.

There v from 1836 is the 66th session of "Montrea In 1828 Governors of McGill in a build Later the ing near th In 1846

present cer Faculty of from the di of the city, building in for Library ing-room a for the first the wants o building wa In 1885,

the Govern quate. A 1 afforded am Faculty,—tl thoroughly Owing to

added in 188 to meet the

The late came to the adjoining th new.buildin ready in use DAMI, RKETT, .LOWAY, NLEY, .FLEUR, RMSTRONG, HNSTON.

S.Can.

R.S. (EDIN.)

e opened on ry lecture at egin on Sepble, and will tal examina-

founded in by Drs. W. henson and i the staff of

ie "Medical with 25 stuilty was 50; h 35 gradu-394-95, 403, uates. 181

There were no sessions held during the political troubles from 1836 to 1839, and it is owing to this fact that the present is the 66th session of the Faculty. This is in reality the 69th session of the school, which is the direct continuation of the "Montreal Medical Institution."

In 1828, the "Medical Institution" was recognized by the Governors of the Royal Institution as the Medical Faculty of McGill University. At this time the lectures were given in a building on the site of the present Bank of Montreal. Later the school was removed to a brick building still standing near the corner of Craig and St. George streets.

In 1846, the lectures of the Faculty were given in the present central building of the University now occupied by the Faculty of Arts. On account of the inconvenience arising from the distance of the University buildings from the centre of the city, it was decided in 1850, to erect a Medical school building in Coté Street, provided with ample accommodation for Library and Museum, and furnished with a large dissecting-room and two lecture rooms ; this building was occupied for the first time during the session 1851-52, and sufficed for the wants of the Faculty until 1872-73, when the present main building was provided by the Governors of the University.

In 1885, the building in the University grounds, erected by the Governors for the use of this Faculty, was found inadequate. A new building was then added, which, at the time, afforded ample facilities for carrying out the great aim of the Faculty,—that of making the teaching of the primary branches thoroughly practical.

Owing to the larger classes and the necessity of thorough laboratory teaching, the Lecture Rooms and Laboratories added in 1885, soon became insufficient in size and equipment to meet the requirements of the Faculty.

The late Mr. John H. R. Molson, with timely generosity came to the aid of the Faculty and in 1893, purchased property adjoining the college grounds and enabled the Faculty to erect new.buildings and extensively alter and improve those already in use. These buildings were completed and officially opened by His Excellency, the Earl of Aberdeen, visitor of the University, January 8th, 1895.

As will be seen on reference to the architect's plans in the special Calendar of the Medical Faculty, the new buildings have been erected as an extension of the old ones, towards the northwest, partially facing Carlton road, and convenient to the Royal Victoria Hospital. They connect the Pathological building acquired in 1803, with the older buildings and comprise a large modern lecture room, capable of accommodating 450 students, with adjoining preparation-rooms and new suites of laboratories for Pathology, Physiology, Histology, Pharmacology and Sanitary Science. The laboratories, etc., in the older buildings, have been greatly enlarged and improved ; the whole of the second floor has been devoted to the department of anatomy, and consists of dissecting-room, anatomical museum and boneroom, preparation rooms, Professors' and Demonstrators' rooms, and a special Lecture Room.

On the ground floor the Library and Museum have been greatly enlarged; a room forming part of the Library has been furnished as a reading room for the use of students, where the extensive reference library of the Faculty may be consulted.

On this floor are situated also the Faculty room, the Registrar's office, the special museum for Obstetrics and Gynæcology, together with Professors' rooms, etc. The chemical laboratories have been increased by including the laboratories formerly used by the department of Physiology.

In the basement are placed the janitor's apartments, cloak rooms with numerous large lockers, the Lavatory, etc., recently furnished with the most modern sanitary fittings.

Through the great liberality of Lord Strathcona and Mount Royal in founding the "Leanchoil Endowment," and of the citizens of Montreal and Medical Graduates in subscribing to the "Campbell Memorial Fund," the Faculty has been enabled to branches i The Fac liberality c the chairs dred thous on a footin with the ad The atteand advance laboratorie

page 211.)

In the b seen by ref tories, diss rooms, two dents, and c of seating 2 and lighted The seats a a seat for th and paying

Three clo the building cured at a no containing 1 journals, is p students the as a reading of the refere

The Dissec is L shaped, feet in breadt opened by ie Univer-

plans in ulty, the extension lly facing Hospital. in 1893, rn lecture adjoining or Patho-Sanitary ngs, have he second omy, and nd bonenstrators'

> ave been has been is, where be con-

the Red Gynæchemical oratories

ts, cloak recently

na and "and of scribing as been 183

enabled to conduct and maintain the teaching of the different branches in a high state of efficiency.

The Faculty is glad to be able to announce that, by the liberality of Lord Strathcona and Mount Royal in endowing the chairs of Pathology and Sanitary Science with one hundred thousand dollars, it is able to establish these departments on a footing fully commensurate with their importance and with the advances and requirements of modern medical science.

The attention of Practitioners is called to the Post Graduate and advanced courses established in 1896 in the hospitals and laboratories connected with the Faculty of Medicine. (See page 211.)

#### Lecture Rooms.

In the buildings now occupied by the Faculty, as will be seen by reference to the diagrams, in addition to the laboratories, dissecting room, etc., there are three large lecture rooms, two capable of comfortably seating about 300 students, and one for general lectures, examinations, etc., capable of seating 450 students. These theatres are well ventilated and lighted by electricity, as indeed is the entire building. The seats are numbered and a lecture room ticket securing a seat for the session is given each student on enregistering and paying the sessional fee.

#### Rooms for Students Use.

Three cloak rooms are provided in convenient portions of the building and in addition commodious lockers can be procured at a nominal rental. A large well lighted reading-room containing newspapers, magazines and the current medical journals, is provided in the new block, and is managed by the students themselves. The original library has been refitted as a reading-room for students desiring to avail themselves of the reference works in the library of the Faculty.

#### Dissecting Room.

The Dissecting Room, which is situated on the second floor, is L shaped, one arm of which is 76 feet in length and 31 feet in breadth and the other arm 45 by 32 feet. It is supplied with thirty dissecting tables and over 200 specially constructed lockers, and is well lighted for work during the day and night.

In connection with the dissecting room, there is a Bone room, and Anatomical Museum where students have an excellent opportunity of studying osteology, frozen sections, anatomical models and dry preparations. In connection with the bone room is a small but well arranged museum of comparative osteology. There are also rooms for the demonstrators of anatomy.

#### Physiological Laboratories.

The new Physiological Laboratories, which are situated on the upper floor of the new building, are supplied with the most modern apparatus for the practical teaching of this most important branch of the medical curriculum. They consist of one large room forty-five by thirty-five feet for undergraduate work and two smaller ones for more advanced work and private research. In addition there is a room set apart for a consulting library and for the special use of the Professor of this department. The Students' laboratory is arranged in such a way as to permit of students assisting at, and taking part in demonstrations.

#### Histological Laboratories.

The Histological Laboratory proper, is a large, well lighted room on the second floor of the new building. It is so arranged that over eighty students can be present at the microscopical demonstrations. It is supplied with 50 microscopes. Students are given special facilities for studying and making themselves thoroughly acquainted with the specimens that are the subjects of demonstration. In addition to the students' laboratory there is a smaller laboratory adjoining for the use of the professor and demonstrators and for special work.

#### Pharmacological Laboratory.

The Pharmacological Laboratory is a large room 45 by 35 feet, situated on the second floor of the new building and is now furnished with the necessary appliances for the practical

teaching o museum o according for teachin

The Cl from three but only a time. Eac numbered use during fixtures, an of reagentset of ch work. Thi plied to ea only requir The labo equipped i student uns practical kn

A large t the College, generosity c Pathological tions to fit it converted in the second Practical Pat are two labo sor's private the ground f for keeping constructed and night. is a Bone ts have an en sections, ection with im of comhe demon-

situated on d with the of this most ney consist for undernced work n set apart f the Protory is arssisting at,

> ell lighted t is so arhe microscroscopes. id making ns that are students' the use of ork.

1 45 by 35 ng and is e practical

teaching of pharmacology. In this room is placed a teaching museum of drugs and pharmaceutical preparations arranged according to their physiological action, and tables arranged for teaching dispensing and the preparation of medicines.

#### Chemical Laboratory.

The Chemical Laboratory is large, lofty, and lighted, from three sides. It can accommodate comfortably 124 men, but only a much smaller number are allowed to work at one time. Each student, when entering on this course, has a numbered table in the laboratory assigned to him for his use during the session. Each table has its own gas and water fixtures, and is provided with shelves for its corresponding set of reagent-bottles, as well as a drawer and locker containing set of chemical apparatus especially adapted for the work. This apparatus is provided by the Faculty, and supplied to each student without extra charge. The student is only required to pay for apparatus broken or destroyed.

The laboratory is ventilated by an electric fan and fully equipped for the various courses of study giving the student unsurpassed advantages for acquiring a sound and practical knowledge of medical chemistry.

#### Pathological Laboratories.

A large building of three stories, 47 by 40 feet, adjoining the College, recently acquired by the Faculty, thanks to the generosity of the late Mr. J. H. R. Molson, constitutes the Pathological Laboratory ; it has undergone extensive alterations to fit it for the purpose. The uppermost floor has been converted into a work-room for the osteologist and curator ; the second floor is one large laboratory for classwork in Practical Pathology and Bacteriology; upon the floor beneath, are two laboratories for research, a preparation room, professor's private room and library, and culture rooms ; while upon the ground floor are rooms for the attendant, for storage and for keeping animals.

186

### MATRICULATION.

# I. REGULATIONS OF THE FACULTY OF MEDICINE OF MCGILL UNIVERSITY.

Every Student before he can be enregistered as an undergraduate in Medicine, must present a certificate of having passed the Matriculation Examination of the Faculty of Medicine or Arts of this ersity, or of having passed some State or University examination accepted by this University.

Graduates in Arts conversion of a Provincial Medical Council and thus become enregistered students in medicine of a province in Canada, are exempt from further preliminary examination.

Students from the United States who have passed a State or University examination fully equivalent to that required by this University, may at the discretion of the Faculty be admitted to study without further examination.

The Matriculation Examination of this University for Medicine is held twice each year, in May or June and September, at the same time as that for Arts and Science. The fee for this examination is five dollars payable on application to the Secretary of the University, W. Vaughan.

Papers for the spring examinations will be sent to local centres on application to the Acting Secretary. An additional fee of four dollars, to meet local expenses, will be charged for such examination.

The September examinations are held just before the lectures in Medicine begin. These are held in McGill College, Montreal, only, and at these examinations alternative books in Classics will be accepted.

The subjects for examination are Classics, Mathematics and English, and one of the optional subjects as below.

#### Compul

Examina and local ce lege only.

Latin.—Cæ Book

In both Latin, trans or easy nam be required. At the Se Latin equiva cation be m least a fortn

Mathematics. cimal F1 etc. Sq Algebra, of the Fi Problem I., II., I

English.—Wr English will be e: as treated of school Analysis, be preferi in Sonnei garded as expected. to give th text-book

#### COMPULSORY SUBJECTS.

Examinations begin on May 29th, 1899, in McGill College and local centres; and on September 15th, 1898, in McGill College only.

Latin.—Cæsar, Bell. Gall. Books I. and II.; Virgil, Aeneid, Book I., and Latin Grammar.

In both Greek (when taken as an optional subject) and Latin, translation at sight and prose composition (sentences or easy narrative, based upon the prescribed prose text), will be required.

At the September examination, other works in Greek or Latin equivalent to those specified may be accepted, if application be made to the Secretary of the Examining board at least a fortnight before the day of examination.

- Mathematics.—Arithmetic, Elementary rules, Vulgar and Decimal Fractions, Proportion, Percentage, Simple interest, etc. Square root, and a knowledge of the Metric System;
  Algebra, Elementary rules, Fractions, Factors, Equation of the First Degree, Indices, Surds and easy Quadratics;
  Problems leading to equations; Euclid's Elements, Books I., II., III., with easy deductions.
- English.—Writing from Dictation. Grammar—A paper on English Grammar, including Analysis. The candidate will be expected to show a good knowledge of accidence, as treated in any grammar prepared for the higher forms of schools. A similar statement applies to grammatical Analysis, in which the nomenclature used by Mason will be preferred. The complete English Grammar published in Sonnenschein's Parallel Grammar Series may be regarded as giving the minimum amount of information expected. English History—Candidates will be required to give the chief details of leading events. While any text-book written for the upper forms of schools may

INE OF

an underof having lty of Meissed some University. and those Provincial tudents in om further

ed a State t required Faculty be

y for Meleptember, he fee for ion to the

t to local additional larged for

e the lecl College, ive books

natics and

# 187

be used in preparation for the examination, Gardiner's Outline of English History (Longman's) is recommended. Composition—Candidates will write a short essay on a subject given at the time of the examination. Shakespeare's Richard II., ed. Deighton (Macmillan), and Scott's Lady of the Lake, ed. Stuart (Macmillan).

## OPTIONAL SUBJECTS.

#### (One only of these subjects is required.)

- 1. French.—Grammar up to the beginning of Syntax. An easy translation from French into English, and from English into French; Dictation or similar exercise. Candidates are expected to be able to write French without gross mistakes in spelling or grammar, special credit will be given for evidence of familiarity with the spoken language.
- 2. German.—The first eighty pages of Joynes' German reader (or equivalent amount) together with German accidence and translation into German as in the First Part of Vandersmissen's German Grammar (or equivalent amount).
- 3. Greek.-Xenophon, Anabasis, Book I.; Greek Grammar.
- 4. Chemistry.—(As in Remsen's Elements of Chemistry, pages I to 160) and Physics (Gage, Introduction to Physical Science).

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

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

# Ontario the Septe equivalen Matricula

The Jui ties of On purpose ta so far as i iners of th as, or equ

A. Matric lic P

The Mat sity, as des Council of University ed from any tion of the certificate 1 passed at or ance on lec Council.

B. Matricu lice

No Unive the College Graduates in however exe Diplomas.

Those who below, or Gra C. P. & S., Gardiner's mmended. ssay on a ikespeare's ott's Lady

> tax. An and from cise. Canh without cial credit he spoken

> > an reader accidence rt of Vanamount).

Grammar.

try, pages Physical

e in Arts is Under-

the June amination eptember, ts only in specially 189

Ontario Candidates.—At the June examination as well as the September one, candidates from Ontario may present an equivalent amount from the books prescribed for the Junior Matriculation Examination of the University of Toronto.

The Junior Leaving Examination accepted by the Universities of Ontario is accepted by the Faculty of Arts for those who purpose taking the double course of Arts and Medicine, in so far as the subjects of their programme satisfy the Examiners of the Faculty, *i.e.*, when the subjects taken are the same as, or equivalent to, those required in McGill University.

# A. Matriculation Examination for those who wish to obtain a license to practice in England, India, or any other British Possession (Canada excepted.)

The Matriculation Examination in Medicine of this University, as described above, is accepted by the General Medical Council of Great Britain and Ireland. Graduates of this University desiring to enregister in England are thus exempted from any examination in preliminary education on production of the McGill Matriculation certificate together with a certificate that all the subjects of this Examination were passed at one time. Certificates of this University for attendance on lectures are also accepted by the General Medical Council.

# B. Matriculation Examination for those who wish to obtain a license to practice in the Province of Quebec.

No University Matriculation Examination is accepted by the College of Physicians and Surgeons of this Province. Graduates in Arts of any British or Canadian University are however exempted from examination, on presentation of their Diplomas.

Those who pass the Preliminary Examination described below, or Graduates in Arts who enregister as students in the C. P. & S., Quebec, on beginning their studies in Medicine, obtain on graduating from McGill University, a license to Practice in Quebec without further examination in any professional subject.

The requirements for this examination:

- LATIN.—Cæsar's 'Commentaries, Bks. I., II., III., IV. and V.—Virgil's Aeneid, Bks. I. and II.—The Odes of Horace, Bk. I., with a sound knowledge of the Grammar of the Language.
- ENGLISH.—For English-speaking candidates.—A critical knowledge of one of Shakspere's plays, viz., Twelfth Night, for 1898, with English Grammar, as in Dr. Smith or Mason.

For French-speaking candidates.--Translation into French of passages from the first eight Books of Washington Irving's Life of Columbus, with questions of Grammar. Translation into English of extracts from Fénélon's Télémaque.

FRENCH.—For French-speaking candidates.—A critical knowledge of Molière's Le Bourgecis Gentilhomme, Fénélon's Aventures de Télémaque and La Fontaine's Fables, Books I., II., III., with questions of Grammar and Analysis.

> For English-speaking candidates.—Translation into English of passages from Fénélon's Télémaque, with questions of Grammar. Translations into French of easy English extracts.

- BELLES LETTRES AND RHETORIC.—Principles of the subject as in Haven's Rhetoric, or Boyd's Rhetoric and Literary Criticism. History of the Literature of the age of Pericles in Greece, of Augustus in Rome, and of the 17th and 18th centuries of England and France.
- HISTORY.—Outlines of the History of Greece and Rome, with particular knowledge of the History of Britain, France and Canada.
- GEOGRAPHY.—A general view, with particular knowledge of Britain, France and North America.

ARITHME ALGEBRA. t GEOMETRY ti A U CHEMISTRY M BOTANY. PHYSICS. PHILOSOPH HILOSOPH HILOSOPH HILOSOPH HILOSOPH HILOSOPH

Quebec, an front of this plications to Belleau, Qu ing text boc each subject Examinati

unsuccessful, Of the fou

lation Exami be attended a of Medicine, The first sessi ly succeeding session must l

C. T

Every one o medical studen inafter provide a license to in any pro-

I., IV. and The Odes of edge of the

ritical knowiz.,. Twelfth r, as in Dr.

slation into t Books of with ques-English of

tical knowliomme, Fé-Fontaine's is of Gram-

slation into naque, with ) French of

e subject as and Literure of the Rome, and and France. Rome, with of Britain,

owledge of

191

ARITHMETIC.—Must include Vulgar and Decimal Fractions, Simple and Compound Proportion, Interest and Percentages, and Square Root.

ALGEBRA.—Must include Fractions and Simultaneous Equations of the First Degree.

- GEOMETRY.—Euclid, Books I., II., III. and VI., or the portion of plane Geometry covered by those Books. Also the measurement of the lines, surfaces and volumes, of regular geometrical figures.
- CHEMISTRY.—Outlines of the subject as in Remsen's Elements of Chemistry.

BOTANY.—Outlines as in Gray's "How plants grow."

PHYSICS.—Outlines as in Peck-Ganot's Physics.

PHILOSOPHY.—Elements of Logic as in Jevon's Logic ; Elements of Philosophy, as in Professor Murrayts Hand-book.

The Examinations will be held in September, 1898, at Quebec, and in June, 1899, at Montreal. (See almanac at front of this Calendar for exact date of examinations.) Applications to be made to Dr. A. T. Brosseau, Montreal, or Dr. Belleau, Quebec, either of whom will furnish schedule giving text books and percentage of marks required to pass in each subject.

Examination Fee, twenty dollars. Should the candidate be unsuccessful, one half of the fee will be returned.

Of the four years' study *after* having passed the Matriculation Examination, three six months' sessions, at least, must be attended at a University, College, or Incorporated School of Medicine, recognized by the "Provincial Medical Board." The first session must be attended during the year immediately succeeding the Matriculation. Examination, and the final session must be in the fourth year.

# C. To obtain a license to Practice in Ontario.

Every one desirous of being registered as a matriculated medical student in the register of this College, except as hereinafter provided, must present to the Registrar the official certificate of having passed the "Departmental Pass Arts Matriculation Examination," and in addition Physics and Chemistry—whereupon he shall be entitled to be so registered upon the payment of twenty dollars and giving proof of his identity.

Graduates in Arts, in any University in Her Majesty's dominions, are not required to pass this examination, but may register their names with the Registrar of the College, upon giving satisfactory evidence of their qualifications, and upon paying the fee of twenty dollars.

A certificate from the Registrar of any chartered University conducting a full Arts course in Canada, that the holder thereof matriculated prior to his enrolment in such University and passed the examination in Arts prescribed for students at the end of the first year, shall entitle such student to registration as medical student under *The Ontario Medical Act*.

Every medical student, after matriculating, shall be registered in the manner prescribed by the Council, and this shall be held to be the beginning of his medical studies, which shall date from that registration.

Full details may be obtained by application to Dr. R. A. Pyne, Registrar, Cor. Bay and Richmond St., Toronto.

#### D. To practice in the Maritime Provinces.

The examination required by the Faculty of Medicine of this University is accepted in the provinces of Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland, subject to the following conditions:

The Nova Scotia Medical Board requires that 60 per cent. of the required marks be taken, and that Physics be taken as the optional subject.

The New Brunswick Medical Board accepts the McGill Matriculation, as it is the same as that required for entrance to the Faculty of Arts.

The Prince Edward Island Medical Board has requirements identical with those of New Brunswick.

The N Matricula but requis Student. provinces cine, notify have their The Re Lindsay, 1 St. Johns; dericton, w Special New Brun

Almanac, a These ex University

E.

An exam as equivaler and to obta jects is requ the Provinc

F. To ob

No specia practitioners practice with Those not amined in p Prince Alber

No special All desiring nized medical subjects only. Provincial Re 1 Pass Arts Physics and so registering proof of

er Majesty's ination, but the College, ications, and

d University the holder h University for students ent to regisedical Act. shall be recil, and this lical studies,

o Dr. R. A. oronto.

es.

Medicine of Nova Scotia, ewfoundland,

60 per cent. be taken as

the McGill for entrance

requirements

193

The Newfoundland Medical Board accepts the McGill Matriculation, as it is identical with the Arts Matriculation, but requires Physics in addition.

Students desiring ultimately to practice in any of these provinces should, when enregistered in the Faculty of Medicine, notify the Registrar of that province of the fact, and have their matriculation enregistered.

The Registrars are: For Nova Scotia, Dr. A. H. W. Lindsay, Halifax; for Newfoundland, Dr. J. Sinclair Tait, St. Johns; and for New Brunswick, Dr. G. H. Coburn, Fredericton, who will furnish all details of requirements, etc.

Special matriculation examinations are held annually in New Brunswick and Nova Scotia, at dates stated in the Almanac, at the beginning of this Calendar.

These examinations, as stated above, are accepted by this University as equivalent to its Matriculation Examination.

## E. To obtain license to practice in Manitoba.

An examination accepted by the University of Manitoba as equivalent to their matriculation, is required on entrance, and to obtain License an examination in Professional subjects is required. Dr. J. S. Gray of Winnipeg, Manitoba, is the Provincial Registrar.

#### F. To obtain license to practice in North-West Territories.

No special matriculation standard is specified. Licensed practitioners of any of the other provinces are admitted to practice without examination.

Those not licensed to practice elsewhere in Canada are examined in professional subjects only. Dr. H. W. Bain, of Prince Albert, is Registrar of this Province.

## G. To practice in British Columbia.

No special standard of matriculation is specified.

All desiring a license must be graduates of some recognized medical school, and pass an examination in professional subjects only. Dr. C. J. Fagan, of New Westminster, is the Provincial Registrar.

N

L

# II.

# ENREGISTRATION.

# The following are the University Regulations:-

All Students desirous of attending the Medical Lectures shall, at the commencement of each Session, enrol their names and residences in the Register of the Medical Faculty.

The said Register shall be closed on the 22nd of October next, for the Session of 1898-99.

Fees are payable to the Registrar, and must be paid in advance at the time of enregistration.

The class tickets for the various courses are accepted as qualifying candidates for examination before the various Colleges and Licensing bodies of Great Britain and Ireland, and the College of Physicians and Surgeons of Ontario. The degree in Medicine of this University carries with it at the Licensing Boards of Great Britain the same exemptions in certain subjects as are granted to all colonial degrees.

To meet the circumstances of the General Practitioners in British North America, where there is no division of the profession into Physicians and Surgeons exclusively, the degree awarded upon graduation is that of "Doctor of Medicine and Master of Surgery," in accordance with the general nature and character of the curriculum, as fully specified hereafter. The degree is received by the College of Physicians and Surgeons of the Province of Quebec, provided the graduate from this university matriculated before the College of Physicians and Surgeons of Quebec, when entering on the study of medicine.

Any graduate therefore in medicine of this University, may obtain a license to practise in the Province of Quebec without further examination, if he has complied with the above regulations. Time Tak with his Lee

#### LECTUI

Anatomy ... Physiology.. Chemistry...

Zoology ..... Botany .....

LABORATORY

Wo

Practical Ana \*Prac. Physic \*Prac. Histolo

\*Prac. Chemis

\*Prac. Botany.

\*Class taken j

TIM

LECTURES

Anatomy..... Physiology..... Chemistry.....

Pharmacology and

Therapeutics

LABORATORY WORK.

Auatomy. .....

Prac. Chemistry.

Prac. Physiology

tHalf the class of NOTE-Students to attend the Out Part tendance to average t

# TIME TABLE FOR SESSION 1897-98.

Time Tables for the Session of 1898-99 will be issued to each student with his Lecture Room ticket on enregistration.

TIME TABLE OF FIRST YEAR LECTURES.

LECTURES.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Lecture Theatre.
Anatomy	9	9	9	9	9	{	Autumn & Winte Terms-No. I.
Physiology	4	. 4		4			No. I.
(		3		3	3	{	Autumn Term No. III.
Chemistry {			2		2	{	Winter and Spring 'l erms-No. III
Zoology		11		11		10 }	Autumn & Winter Terms,
Botany		11		11			Spring Term.
Laboratory Work.							
Practical Anatomy	$10 - 12\frac{1}{2}$	$10 - 12\frac{1}{2}$	$10 - 12\frac{1}{2}$	$10 - 12\frac{1}{2}$	$10 - 12\frac{1}{2}$	$9-12\frac{1}{2}$	
*Prac. Physiology			3-5				
*Prac. Histology	2-4				4-6	10-12	
*Prac. Chemistry.	9-11	9-11	9-11	9-11			Autumn Term.
*Prac. Botany	11-12		11-12		10-12		Spring Term.
*Class taken in di	vision.	<u> </u>					
TIME T	ABLE	OF S	ECONI	D YEA	R LEO	TURE	8.
LEOTEDES	Mon.		1				
LECTURES.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Lecture Theatre.
Anatomy	9	Tues.	Wed.	Thur. 9	Fri. 9	Sat.	
						Sat.	Theatre.
Anatomy	9	9	9	9	9	{	Theatre.
An <b>atomy</b> Physiology	9 2	9	9 2	9	9 2	{	Theatre.
Anatomy Physiology Chemistry Pharmacology and Therapeutics LABORATORY	9 2 3	9	9 2 3	9	9 2 3	{	Theatre. Autumn & Winter Terms -No. I. No. I.
Anatomy Physiology Chemistry Pharmacology and Therapeutics LABORATORY WORK.	9 2 3	9	9 2 3	9	9 2 3	{	Theatre. Autumn & Winter Terms - No. I. No. I.
Anatomy Physiology Chemistry Pharmacology and Therapeutics LABORATORY	9 2 3 4	9	9 2 3 4	9	9 2 3 4	{	Theatre. Autumn & Winter Terms -No. I. No. I. No. I.
Anatomy Physiology Chemistry Pharmacology and Therapeutics LABORATORY WORK.	9 2 3 4  10 12.30	9	9 2 3 4 10	9  10	9 2 3 4 10	{	Theatre. Autumn & Winter Terms -No. I. No. I. Nc. I. Autumn & Winter

tHalf the class only. NorE-Students of the second year when not engaged in the laboratories are required to attend the Out Patients' Clinics (only) of M. G. H. or R. V. H. (11 a.m. to 1 p.m.); at-tendance to average two hours per week. Certificates required for graduation,

1 Lectures heir names ty. of October

paid in ad-

ccepted as rious Coleland, and ario. The 1 it at the nptions in ees. itioners in of the prothe degree dicine and ral nature hereafter. ; and Surluate from Physicians study of

> rsity, may bec withthe above

## 195

	DIN .			BAR	mor	CIUES.	
LECTURES.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Lecture Theatre.
Gynæcology and Obstetrics	9			9			п
Medicine Surgery Jurisprudence	10	10	*11-12 *12-1	10	10		
and Mental Diseases	11			11.			II
Pharmacology and Therapeutics		11			11		III
Gen. Pathology and Bacteriology	5		9				III
Hygiene Morbid Anatomy		9			9	*9-11	III
Clinical Medicine		350.15		2 p.m RVH			· · · · · · · · ·
Clinical Surgery	2 p.m. RVH		4-6		1 p.m. MGA 4-6		1
Clinical and Sanitary Chemistry		4-6	4-6	4-6	4-6		Path. Lab, Winter. Chem. Lab. Autumn
Bacteriology and Hygiene.		4-6	4-6	4-6	4-6		Path. Lab. Autumn
t+Clinical Microscopy t+Operative Surgery		1 4 0	4-6 4-6	4-9 4-6	4-6 4-6		Path. Lab. Spring Anat. Lab. Spring
*Alternate weeks M.G.F	I. and	R.V.H	l. †•	Option	al.	Classe	s taken in groups
TIME TA	BLE O	F FOU	JRTH	YEAH	R LEC	TURE	8.
LECTURES.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Lecture Theatre.
Gynæcology		9					II

#### TIME TABLE OF THIRD YEAR LECTURES.

196

8. 10 Obstetrics ..... 9 11 п 10 **‡11-1**2 Medicine ..... III ..... 10 Surgery Med. & Surg. Pathology .... 10 **‡12-1** . . . . . .... ..... ..... . . . . . . . . . . II R.V.H. .... 11-12 11-12 11-12 11-12 11-12 11-12 M.G.H. R.V.H. M.G.H. 12-1 12-1 121 12.1 Clinical Medicine ..... { .....1 . . . . . . . . . . . . . . . 2 .... . . . . . . . . . . . . . . . . .... 1 Clinical MGH . . . . .... . . . . . Surgery ..... R.V.H. . . . . . ..... . . . . . . . . . . . . Gynæcological 11 R.V.H. .... .... .... .... ..... Operations.... M.G.H. R.V.H. M.G.H. R,V.H. \*Clinical 4 4 4 4 . . . . . . .... \*Clinical Ophthalmology.....} +Gynæcological Clinics.....} 4 4 . . . . . .... . . . . . . .... . . . . . . . . . . .... . . . . . Morbid Anatomy .. ..... t9-11 . . . . . ..... . . . . . . . . . . . . . . . . . Moroid Anatomy. Clinical \*Dermatological Clinic..... \*Diseases of Chil-\*Diseases of Chil-Mater-1-2.30 . . . . . .... . . . . . . 1..... nity Hosp. M.G.H. R.V.H. ..... 2 ..... .... .... .... 3 . . . . . .... .... .... .... M.G.H. dren Clinie .... 4 4 . . . . . ..... .... ..... 4 4 M.G.H. .... .... Anatomy...... 5 Autumn term. .... .... . . . . . . ..... .... Children's Diseases.....  $\mathbf{5}$ ..... Winter term. ..... ....

\*In groups of eight or ten. †In groups of four. ‡Alternate weeks M.G.H. and R.V.H.

The Cor of the Fac sion of the about nine By this 1 a more am tory work. scientific b. will be abl ance of clin

By this : lectures per ponding in vidual teach Anatomy, 1 time, during study of di Montreal G

The Facu different pr each studen to do away tempting to into four or each student edge of his during even

# III.

197

# COURSES OF LECTURES.

The Corporation of the University, on the recommendation of the Faculty of Medicine, in 1894, consented to the extension of the courses of lectures in medicine over a period of about nine months instead of six.

By this means, (1) The students of the primary years have a more ample opportunity of becoming acquainted, by laboratory work, with those branches of study which form the scientific basis of their profession, and (2) the final students will be able to derive the greatest benefit from the abundance of clinical material provided in the two Hospitals.

By this arrangement while the actual number of didactic lectures per session will be decreased, there will be a corresponding increase in the amount of tutorial work and individual teaching in the laboratories for Chemistry, Physiology, Anatomy, Pathology and Hygiene as well as giving more time, during the last two years of the course, for the thorough study of disease in the wards of the Royal Victoria and Montreal General Hospitals.

The Faculty expects, by thus increasing the time that the different professors, lecturers and demonstrators devote to each student, to accomplish two very important ends: First, to do away with the injurious effects which result from attempting to condense the teaching of medicine and surgery into four or even five sessions of six months; Second, to give each student a sounder and more thoroughly practical knowledge of his profession than could be obtained by attending during even five sessions of six months each.

Theatre. II 11

Lecture

ш III

III

Path. Lab, Winter.

em, Lub. Autumn

th. Lab. Autumn th. Lab. Spring at. Lab. Spring

sken in groups.

Lecture

Theatre 111 III III R.V.H M.G.H. R.V.H M.G.H. M.G.H R.V.H. R.V.H. M.G.H. R.V.H. M.G.H. R.V.H. Mater-Mater nity Hosp. M.G.H. R.V.H. M.G.H. M.G.H. Autumn term. Winter term.

G.H. and R.V.H.

# ANATOMY.

198

# (DESCRIPTIVE AND PRACTICAL).

## PROFESSOR, FRANCIS J. SHEPHERD.

J. M. ELDER and J. A. SPRINGLE, Lecturers; J. G. Mc-CARTHY, Senior Demonstrator; R. TAIT MCKEN-ZIE, J. A. HENDERSON, W. I. BRADLEY, J. J. Ross, and A. E. ORR, Demonstrators.

Anatomy is taught in the most practical manner possible, and its relation to Medicine and Surgery fully considered. The lectures are illustrated by the fresh subject, moist and dry preparations, sections, models and plates, and drawings on the blackboard.

A course of practical demonstrations in Medical, Surgical and Topographical Anatomy is also given in the final year of the course.

The department of *Practical Anatomy* is under the direct control and personal supervision of the Professor of Anatomy, assisted by his staff of Demonstrators.

The methods of teaching are similar to those of the best European schools, and Students are thoroughly grounded in this branch.

Every Student must be examined *at least* three times on each part dissected, and no certificate is given unless the examinations are satisfactory.

Special Demonstrations on the Brain, Thorax, Abdomen, Bones, etc., are frequently given. Prizes are awarded at the end of the Session for the best examination on the fresh subject.

The Dissecting Room is open from 8 a.m. to 6 p.m. Abundance of material can be obtained, owing to the Anatomy Act of the Province of Quebec.

#### CHEMISTRY.

## PROFESSOR, GILBERT P. GIRDWOOD.

The course in this subject is carefully graded. Students of the first year receive lectures on Chemical and Physiological Physics a In the se embrace i cludes a c illustrated ped with a

# LABC

Laborate ing each of The first chemical ac ing the sec tative analy a course of which the s of chemistry cial attentio accurate no notes are e

## The JOSEPH.

DEMONSI

The purpo acquainted, a its methods, rest. Accord the physical, receive attent In addition every departm . G. Mc-McKen-J. Ross,

er possible, considered. moist and 1 drawings

1, Surgical nal year of

the direct Anatomy,

f the best ounded in

times on ss the ex-

Abdomen, ded at the the fresh

1. Abundtomy Act

siological

199

Physics and the general principles and theories of the science. In the second year the course on chemistry is extended to embrace its application to physiology and medicine, and includes a course in Organic Chemistry. The lectures are fully illustrated by experiments, for which the department is equipped with all modern Lecture-room apparatus.

## PRACTICAL CHEMISTRY.

PROFESSOR, R. F. RUTTAN. DEMONSTRATOR, C. G. L. WOLF. LABORATORY ASSISTANT, CHARLES STEVENSON.

Laboratory instruction in practical chemistry is given during each of the first three years of study thoughout one term.

The first year's course illustrates the general principles of chemical action and the properties of typical elements. During the second year the course will include methods of qualitative analysis and the detection of poisons. In the third year a course of clinical and sanitary chemistry will be given, in which the student will be made familiar with the application of chemistry to the diagnosis and prevention of disease. Special attention is directed to instructing the student in making accurate notes of his experiments and his conclusions. These notes are examined daily and criticised.

#### PHYSIOLOGY.

The JOSEPH MORLEY DRAKE, PROFESSOR, - WESLEY MILLS. LECTURER, W. S. MORROW.

DEMONSTRATORS, J. W. SCANE and A. A. ROBERTSON.

The purpose of this Course is to make Students thoroughly acquainted, as far as time permits, with modern Physiology : its methods, its deductions, and the basis on which the latter rest. Accordingly a full course of lectures is given, in which the physical, the chemical and other aspects of the subject receive attention.

In addition to the use of diagrams, plates, models, etc., every department of the subject is experimentally illustrated. The experiments are mostly free from elaborate *technique*, and many of them are of a kind susceptible of ready imitation by the Student.

# Laboratory work for Senior Students:-

(1.) During a part of the Session there will be a course on Physiological Chemistry, in which the Student will, under direction, investigate food stuffs, digestive action, blood, and the more important secretions and excretions including urine. All the apparatus and material for this course will be provided.

(2.) The remainder of the Session will be devoted to the performance of experiments which are unsuitable for demonstration to a large class in the lecture room, or that require the use of elaborate methods, apparatus, etc., together with such as each individual of the class can himself conduct.

# Laboratory work for Junior Students:-

This will be somewhat similar to the course for senior students, but simpler and anatomico-physiological rather than chemical; like the work for second year students its main object will be the illustration of important physiological principles.

### HISTOLOGY.

## PROFESSOR, GEO. WILKINS. DEMONSTRATOR, N. D. GUNN.

The teaching of Histology and Microscopical methods is spread over two years.

During the latter half of the first year a course of ten demonstrations is given upon elementary Histology and systematic Histology up to, and including the digestive system. During the second year fifteen or twenty demonstrations will be given upon the whole of Histology. The practical instruction upon the preparation and mounting of specimens is given during the first year. Examinations both practical and written will be held at the end of both first and second years. manner : During 1 Pharmacole sical proper of their phy in outline. the student the drugs 1 monstration given.

The lect

During the is dwelt up therapeutic Prescription drugs are eseries of lec pitals on sp portant poin

ASS

# DEM

## ASSISTAN

While the Special Path of illustrating With the exc served in this

# PHARMACOLOGY AND THERAPEUTICS.

# PROFESSOR, A. D. BLACKADER. DEMONSTRATOR, R. A. KERRY.

The lectures on this subject are graded in the following manner :

During the primary course, attention is directed chiefly to Pharmacology, including the important chemical and physical properties of the various drugs, and a brief consideration of their physiological action; therapeutics is considered only in outline. A complete museum of Materia Medica affords the student opportunity for making himself acquainted with the drugs themselves. During the session, a course of demonstrations on Practical Materia Medica and Pharmacy is given.

During the final course, the physiological action of drugs is dwelt upon at length, and attention is given to the therapeutic application of all drugs and remedial measures. Prescription writing, and the various modes of administering drugs are explained and illustrated. During the course a series of lectures will be delivered in the theatres of the hospitals on special cases or groups of cases, illustrating important points in both general and special Therapeutics.

#### MEDICINE.

PROFESSOR, JAMES STEWART. ASSISTANT PROFESSORS, { F. G. FINLEY. LECTURER, C. F. MARTIN. DEMONSTRATORS, } G. GORDON CAMPBELL. W. F. HAMILTON.

ASSISTANT DEMONSTRATOR, S. RIDLEY MACKENZIE.

While the lectures on this subject are mainly devoted to Special Pathology and Therapeutics, no opportunity is lost of illustrating and explaining the general laws of disease. With the exception of certain affections seldom or never observed in this country, all the important internal diseases of

inique, and iitation by

course on vill, under blood, and including se will be

ted to the or demonat require ther with induct.

enior stuther than main obical prin-

ethods is

of ten del systemm. Durs will be struction is given and writyears.

#### 201

the body, except those peculiar to women and children, are discussed, and their Pathological Anatomy illustrated by the large collection of morbid preparations in the University Museum, and by fresh specimens contributed by the Professor of Pathology.

The College possesses an extensive series of Anatomical plates and models illustrative of the Histological and Anatomical appearances of disease, and the wards of the General and Royal Victoria Hospitals afford the lecturer ample opportunities to refer to living examples of very many of the maladies he describes, and to demonstrate the results of treatment.

# CLINICAL MEDICINE.

## PROFESSOR, JAMES STEWART.

# ASSOCIATE PROFESSORS, F. G. FINLEY and H. A. LAFLEUR. LECTURER, C. F. MARTIN.

The instruction in Clinical Medicine is conducted in the theatres, wards, out-patient rooms and laboratories of the Royal Victoria and Montreal General Hospitals.

The courses include :---

I. The reporting of cases by every member of the Graduating Class, a certain number of beds being assigned to each student.

II. Bedside instruction for members of the Graduating Class.

III. Two Clinics weekly in each hospital.

IV. Tutorial instruction for the Junior Classes, in the wards and out-patient rooms of both hospitals.

V. Instruction in Clinical Chemistry and Bacteriology.

# SURGERY

# PROFESSOR, THOMAS G. RODDICK.

#### 

This course consists of the Principles and Practice of Surgery and Surgical Pathology, illustrated by a large collection of preparations from the Museum, as well as by specimens obtained fi greater pa of Surgery which hav The variou and applica Surgery fo

# ASS

DEMONSTR The teach real Genera I. In the strations ar senior and II. Small through the struction gimanagemen per week.

III. Beds student is re assist in the case reportir

IV. In the ceptionally g juries, to win personal cont tion of a var

> OBS1 P

# ASSISTA

This course practice of the hildren, are ated by the versity Mu-'rofessor of

Anatomical d Anatomeneral and ple opporf the malatreatment.

LAFLEUR.

ed in the es of the

ie Gradusigned to

raduating

the wards

iology.

. ELDER

e of Surcollection pecimens 203

obtained from cases under observation at the Hospitals. The greater part of the course however is devoted to the Practice of Surgery, in which attention is constantly drawn to cases which have been observed by the class during the session. The various surgical appliances are exhibited, and their uses and application explained. Surgical Anatomy and Operative Surgery form special departments of this course.

# CLINICAL SURGERY.

PROFESSOR, JAMES BELL. ASSOCIATE "GEORGE E. ARMSTRONG. DEMONSTRATORS, KENNETH CAMERON and A. E. GARROW.

The teaching in Clinical Surgery is conducted at the Montreal General and Royal Victoria Hospitals.

I. In the amphitheatre of each of these Hospitals, demonstrations are given and operations are performed before the senior and junior classes on alternate days.

II. Small ward classes of about 10 men in each are taken through the wards by the surgeon in attendance, and instruction given at the bedside concerning the nature and management of surgical cases, in each hospital, at least once per week.

III. Beds are assigned to students in rotation, and each student is required to carefully study and report cases and to assist in the surgical dressing of the same. Certificates of case reporting are given and are essential for graduation.

IV. In the Out-patient Department students have an exceptionally good opportunity to study a great variety of injuries, to witness operations in minor surgery, to come into personal contact with patients and to take part in the application of a variety of surgical dressings and appliances.

> OBSTETRICS AND DISEASES OF INFANTS. PROFESSOR, J. CHALMERS CAMERON. DEMONSTRATOR, D. J. EVANS. ( T. P. SHAW.

This course will embrace: 1. Lectures on the principles and practice of the obstetric art, illustrated by diagrams, fresh and preserved specimens, the artificial pelvis, complete sets of models illustrating deformities of the pelvis, wax preparations, bronze mechanical pelvis, &c. 2. Bedside instruction in the Montreal Maternity, including external palpation, pelvimetry, the management and after-treatment of cases. 3. A complete course on obstetric operations with the phantom and preserved foetuses. 4. The diseases of Infancy.

5. A course of individual clinical instruction at the Montreal Maternity.

Arrangements have now been made for a graded course in Obstetrics, instruction being given separately to third year and final students.

Particular attention is given to Clinical instruction, and a Clinical examination in Midwifery similar to that held in Medicine and Surgery now forms part of the final examination.

A short course of lectures on diseases of infancy is given, supplemented by Clinical demonstration and ward work.

#### GYNÆCOLOGY.

# PROFESSOR, WM. GARDNER. LECTURERS, F. A. L. LOCKHART and J. C. WEBSTER.

The didactic course is graded and consists of from forty to forty-five lectures given at intervals alternating with the lectures on Obstetrics and extending throughout the session. The anatomy and physiology of the organs and parts concerned is first discussed. Then the various methods of examination are fully described, the necessary instruments exhibited, and their uses explained.

The diseases peculiar to women are considered as fully as time permits, somewhat in the following order:—Disorders of Menstruation; Leucorrhœa; Diseases of the External Genital Organs; Inflammations, Lacerations and Displacements of the Uterus; Pelvic Cellulitis and Peritonitis and Inflammations. of the Ovaries and Fallopian Tubes; Benign and Malignant growths of the Uterus; Tumours of the Ovary;

Diseases ( trated as : Clinical struction, eral hospi Webster. able for p Numerous the subjec hospital co which adv structed ir of instrum Particul and a Clin held in Me amination.

## LECTUR LECTURER

This cou in its Medi tention is c microscopic scribed and in its differe so well ada minute qua in the diagi In addition of this kind of poisons, are poisons are ete sets of eparations, tion in the pelvimetry, A complete 1 and pre-

the Mont-

l course in third year

ion, and a eld in Meamination. y is given, d work.

#### STER.

m forty to h the lece session. parts coni of examents exhi-

Is fully as Disorders External Displaceis and In-; Benign ne Ovary;

## 205

Diseases of the Bladder and Urethra. The lectures are illustrated as fully as possible by drawings and morbid specimens.

Clinical teaching, including out-patient and bed-side instruction, is given at both Royal Victoria and Montreal General hospitals by Professor Gardner and Doctors Lockhart and Webster. A large amount of Clinical material is thus available for practical instruction in this department of medicine. Numerous operations are done before the class, and made the subject of remarks. In addition to the ward-patients each hospital conducts a large out-patient Gynæcological Clinic to which advanced students are admitted in rotation and instructed in digital and bimanual examination and in the use of instruments for diagnosis.

Particular attention is thus given to Clinical instruction, and a Clinical examination in Gynæcology similar to that held in Medicine and Surgery now forms part of the final examination.

# MEDICAL JURISPRUDENCE.

## PROFESSOR, GEO. WILKINS, LECTURER ON MENTAL DISEASES, T. J. W. BURGESS. LECTURER ON MEDICO\_LEGAL PATHOLOGY, WYATT JOHNSTON.

This course includes Insanity, the subject being treated of in its Medical as well as Medico-Legal aspects. Special attention is devoted to the subject of blood stains, the clinical microscopic and spectroscopic tests for which are fully described and shown to the class. The various spectra of blood in its different conditions are shown by the Microspectroscope, so well adapted for showing the reactions with exceedingly minute quantities of suspected material. Recent researches in the diagnosis of human from animal blood are alluded to. In addition to the other subjects usually included in a course of this kind, Toxicology is taken up. The modes of action of poisons, general evidence of poisoning and classification of poisons are first treated of, after which the more common poisons are described, with reference to symptoms, postmortem appearances, and chemical tests. The post-mortem appearances are illustrated by plates, and the tests are shown to the class. A series of demonstrations and Clinics will be given by Prof. Johnston on the Medico-Legal cases, arising out of the coroner's court, as well as those in the Montreal General Hospital. In this way Students will have practical clinical instruction in methods of Medico-Legal investigation in civil as well as in criminal cases.

## OPHTHALMOLOGY AND OTOLOGY.

## PROFESSOR, F. BULLER. LECTURER, J. J. GARDNER.

This will include a course of twenty-five lectures on diseases of the Eye and Ear, both didactic and clinical. In the former, the general principles of diagnosis and treatment will be dealt with; including three lectures on the errors of refraction and faults of accommodation. At the clinical lectures given in the Hospitals cases illustrative of the typical forms of ordinary diseases of the Eye and Ear will be exhibited and explained to the class. In the out-patients' department of each Hospital students have excellent opportunities of gaining clinical experience.

#### BIOLOGY.

## D. P. PENHALLOW, FROFESSOR BOTANY. E. W. MACBRIDE, "ZOOLOGY.

This course will be given during the Autumn term of the first session, and will be almost entirely practical.

The course will consist of Zoology and Botany.

A. Zoology. This course will embrace a comparative study of the following forms Amœba, Vorticella, Hydra, Lumbricus, Cambarus (cray fish), Unio and Mustelus, as the last type is the most important an extra allowance of time will be devoted to it. B. Botan omycete, B Pteris, Sela course is ea of human 1

The SIR .

#### ASSISTANT

LAI The follow ject :--I. A cours Year (option ed twice we 2. A cours topsies, for S are held onc 3. Demons dents of the session by D Dr. Wyatt Je

4. The perfito take an act are conducted by the Patho In addition to students are exin connection and microscop to become promounting.

206

ost-mortem are shown ics will be ses, arising e Montreal e practical vestigation

> n diseases the formnt will be of refrac-1 lectures cal forms exhibited partment inities of

> > m of the

ve study mbricus, type is be de-

B. Botany. The following types will be studied:-- A Myxomycete, Bacillus, Yeast, Pleurococcus, Fucus, Polytrichum, Pteris, Selaginella, with a comparison of allied forms. The course is especially arranged to be introductory to the study of human physiology and anatomy.

# PATHOLOGY.

The SIR DONALD SMITH, PROFESSOR, - J. G. ADAMI. DEMONSTRATORS. { W. I. BRADLEY. A. G. NICHOLS.

ASSISTANT DEMONSTRATORS, D. D. MACTAGGART, D. P. ANDERSON.

LABORATORY ASSISTANT, E. W. HAMMOND.

The following courses constitute the teaching on this subject :--

I. A course of General Pathology for Students of the Third Year (optional for those of the Fourth). Lectures are delivered twice weekly throughout the year.

2. A course of demonstrations in the performance of Autopsies, for Students of the Third Year. The demonstrations are held once a week, from October until Christmas.

3. Demonstrations upon the Autopsies of the week for Students of the two Final Years. These are given during the session by Dr. Adami at the Royal Victoria Hospital, and by Dr. Wyatt Johnston at the General Hospital.

# Practical Courses.

4. The performance of autopsies. Each student is required to take an active part in at least six autopsies. The autopsies are conducted at the General and Royal Victoria Hospitals by the Pathologists of these Hospitals and their assistants. In addition to the actual performance of the sectio cadaveris, students are expected to attend the practical instruction given in connection with each autopsy, in the method of preparation and microscopic examination of the removed tissues, so as to become proficient in methods of preparation, staining and mounting.

5. A practical course in Morbid Histology for Students of the Third Year. This class is held once a week during the winter months. Six sections are as a rule distributed at each meeting of the class so that each student obtains a large and representative series of morbid tissues, and upon an average twenty minutes are devoted to the description and examination of each specimen. Laboratory fee to cover cost of slides, reagents, microscope, etc., \$5.

6. A course of demonstrations upon Morbid Anatomy (Museum specimens) once weekly during the winter months, for students of the Fourth Year.

In addition to the above the staff of the department give instruction to the more advanced students who desire to undertake any special work in the laboratories. Classes in clinical pathology and microscopy are given from time to time, at the Pathological Laboratory and at the General and Royal Victoria Hospitals under the direction of the Professors of Clinical Medicine.

# DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE.

The SIR DONALD SMITH, PROFESSOR, – ROBT. CRAIK. SANITARY PHYSICS (PROF. ROBT. CRAIK. AND CHEMISTRY. (PROF. R. F. RUTTAN. BACTERIOLOGY AND PREVENTIVE MEDICINE (DR. H. B. YATES.

The Department of Public Health and Preventive Medicine has, owing to its endowment by Sir Donald A. Smith, been made one of the most important subjects of the third year.

The instruction will consist of two lectures per week, for the whole session. A systematic course in Bacteriology and Preventive Medicine, including Serum Therapy, will be followed by courses on the sanitary relations of water, soil, food and air, the use and relative value of disinfectants, domestic sanitation, including plumbing, heating, ventilation, the consti by models on person: climate an tematic lea thological and sanita over a peri A worki with work application given in th (See Muser

This could the Larynge carried on w be insured. upon interes during the s eminently pr

This cours versity on In well as from of mental dis Asylum, whe of senior stuc Students of during the uted at each a large and an average id examinaver cost of

d Anatomy iter months,

ent give ine to unders in clinical to time, at and Royal ofessors of

# VENTIVE

CRAIK.

T

STON.

Medicine mith, been rd year.
week, for ology and
, will be vater, soil, :tants, doentilation, 209

the construction of habitations, etc., and will be illustrated by models and special apparatus. Lectures will also be given on personal hygiene, including bathing, exercise, etc., and on climate and health resorts. In addition to the course of systematic lectures, laboratory courses will be given in the Pathological and Chemical laboratories on Bacteriology, clinical and sanitary Chemistry. The laboratory work will extend over a period of three months and will be given twice weekly.

A working museum and model room is being equipped with working models and apparatus to illustrate the application of hygienic principles. Demonstrations will be given in the hygienic museum from time to time as required. (See Museums.)

# LARYNGOLOGY AND RHINOLOGY.

## PROFESSOR, H. S. BIRKETT.

This course will consist of practical lessons in the use of the Laryngoscope and Rhinoscope. The instruction will be carried on with small classes so that individual attention may be insured. A limited number of clinical lectures bearing upon interesting cases attending the clinic will be delivered during the session. These lectures will be, however, of an eminently practical nature.

#### MENTAL DISEASES.

#### LECTURER, T. J. W. BURGESS.

This course will comprise a series of lectures at the University on Insanity in its various forms, from a medical as well as from a medico-legal standpoint. The various types of mental diseases will be illustrated by cases in the Verdun Asylum, where clinical instruction will be given to groups of senior students at intervals throughout the session.

0

# DISEASES OF INFANTS AND CHILDREN.

# PROFESSORS, J. C. CAMERON. A. D. BLACKADER.

Although this subject does not constitute a special chair in the University, systematic instruction is given (a) in connection with the chair of Obstetrics and Diseases of Infants, by Prof. Cameron; (b) by a course of lectures, clinical and didactic by Prof. Blackader, and (c) through the Children's Clinic at the Montreal General Hospital and at the Infants' Home.

# IV.

# DOUBLE COURSES.

By special arrangement with the Faculty of Arts, it is now possible for students to obtain the double degree of B.A., and M.D., C.M., after only six years of study.

It has been decided to allow the Primary subjects (Anatomy, Physiology and Chemistry) in medicine to count as Honor subjects of the third and fourth years in Arts. It follows then that at the end of four years study a student may obtain his B.A. degree and have two years of his medical course completed.

The remaining two years of study are devoted to the third and fourth year subjects in Medicine.

The special provisions for Medical Students in the Arts course are as follows :

In the Second Year.—The remaining half of the Course in Chemistry of the Medical Faculty may be substituted for the Psychology of the First Term and the Mathematical Physics of the Second Year. The Botany Course of the Medical Faculty may be substituted for the Botany in the Arts Course.

[NOTE.—The Faculty of Medicine advises Medical Students who are following the Courses in Arts prescribed for the double degree, to take the subject of Psychology if possible.]

Third Year-Physiology and Histology with practical work therein, or Anatomy with Practical Anatomy, together with the regula: may be si "Division l [Note.-

should be pulsory.]

Fourth Y. in Arts and leges in the they shall I lectures give the addition examination Students :

to continue taken in the

In order t give notice a of the Facul present a cer that his nam must produce a certificate standing at t and Fourth completed ea

A certificat the profession entrance upon pleted two yea the prescribed

# GRADI

The Faculty and special co and Royal Vic

## 210

al chair in in connecinfants, by al and di-Children's ie Infants'

IN.

it is now B.A., and

cts (Anacount as s. It foldent may s medical

the third

the Arts

Course in ed for the l Physics Medical s Course. Students for the possible.] cal work her with 211

the regular examinations therein in the Faculty of Medicine, may be substituted for two courses under the heading of "Division b" in the curriculum of the Third Year in Arts.

[NOTE.—If a special course of Physics for Medical Students should be established, Natural Philosophy may not be compulsory.]

Fourth Year.—Students who have completed the Third Year in Arts and First Year in Medicine shall have the same privileges in the Fourth Year as Honour Students in this year, viz., they shall be required to attend two only of the courses of lectures given in the ordinary departments (or one course with the additional course therein), and to pass the corresponding examinations only at the Ordinary B. A. Examination.

Students are recommended in the Third and Fourth Years to continue the study of subjects which they have already taken in the First and Second Years.

In order to obtain the above privileges, the student must give notice at the commencement of the Session to the Dean of the Faculty of Arts, of his intention to claim them, and present a certificate from the Registrar of the Medical Faculty that his name is entered on the books of that Faculty. He must produce at the end of the sessions in the first two years a certificate of attendance on the required lectures and of standing at the corresponding examinations. In the Third and Fourth Years, he must produce certificates that he has completed each year of the Medical curriculum.

A certificate of Licentiate in Arts will be given along with the professional degree in Medicine to those who, previous to entrance upon their professional studies proper, have completed two years in the Faculty of Arts, and have duly passed the prescribed examinations therein

# GRADUATE AND ADVANCED COURSES.

The Faculty of Medicine in 1896 established post-graduate and special courses in connection with the Montreal General and Royal Victoria Hospitals and the various laboratories in the University buildings. These courses will be continued in 1899.

There will be two distinct sets of courses, one a short practical and clinical course for medical men in general practice who desire to keep in touch with recent advances in Medicine, Surgery and Pathology, and who wish special clinical experience in Gynæcology, Ophthalmology, Laryngology, etc. This course will last about six weeks, beginning about the first of May.

A special detailed programme will be prepared and will be sent on application in February next. The fee, including hospital fees for both Hospitals, is fifty dollars.

The other courses will be for those who have just completed their regular course in Medicine, and desire special Laboratory or Clinical teaching before beginning practice.

Arrangements have also been made to accommodate a limited number of such graduates who desire advanced and research work.

Commodious laboratories for advanced work have been equipped in connection with the Pathological and Clinical departments of both the Royal Victoria and Montreal General Hospitals, and in connection with the general laboratories for Pathology, 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 course, or who wish to engage in special research, may enter at any time by giving a month's notice, stating the courses desired and the time at their disposal.

All the regular clinics and demonstrations of both hospitals will be open to such students on the same conditions as undergraduates in medicine of this University.

These laboratories have been open for graduates since May 1st, 1896.

Further details regarding courses, fees, etc., may be obtained on application to the Registrar.

The Fac completed instruction Medicine a quirements more than recent adva 3rd, 1898 a A special at which ea tory or host ject to alter tending the The follo A.-A se week, at 8.30 quired, were and Surgery PROF. WN PROF. JAS Tabes Dorsa Compression PROF. T. C culous Joints PROF. F. PROF. A. I fancy." (2) of Nutrition." PROF. G. E nosis, and the pendicitis." PROF. GEO. in Life Insur PROF. JAS. PROF. WYA Injuries."

#### continued

short pracal practice Medicine, cal experi-, etc. This the first of

ind will be including

just comspecial Laactice. date a limed and re-

have been id Clinical itreal Genaboratories altered and

lesiring to rse, or who ny time by ed and the

h hospitals s as under-

since May

nay be ob-

# **2**13

# THE GRADUATE COURSE OF 1898.

The Faculty of Medicine of McGill University has just completed its third Post-Graduate Course. This course of instruction which was given in the various departments of Medicine and Surgery is especially arranged to meet the requirements of the general practitioner who is unable to devote more than a few weeks to the task of overtaking the more recent advances in his profession. The course began May 3rd, 1898 and closed June 12th.

A special time-table was issued each week stating the hour at which each clinic or demonstration is held, and the laboratory or hospital at which it is held. This time-table was subject to alterations to meet the special demands of those attending the course.

The following is an outline of the course:-

A.—A series of **Evening Lectures**, four evenings per week, at 8.30, illustrated by lantern slides, models, etc., as required, were given on the more recent advances in Medicine and Surgery, Pathology, etc. These included the following:—

PROF. WM. GARDNER.-Uterine displacements.

PROF. JAS. STEWART.—(I) "Diagnosis and treatment of Tabes Dorsalis." (2) "The cause, diagnosis and treament of Compression Myelitis."

PROF. T. G. RODDICK.—"Diagnosis and treatment of Tuberculous Joints."

PROF. F. J. SHEPHERD.—"Hare Lip."

PROF. A. D. BLACKADER.—(1) "Diarrhœal disorders of Infancy." (2) "Digestion disorders of Infancy." (3) "Diseases of Nutrition."

PROF. G. E. ARMSTRONG.—(1) "Cancer of tongue, its diagnosis, and the extent and technique of removal." (2) "Appendicitis."

PROF. GEO. WILKINS.—"The duties of a Medical Examiner in Life Insurance" (two lectures).

PROF. JAS. BELL.—"Intestinal obstruction" (two lectures.") PROF. WYATT JOHNSTON.—"The Medico-Legal Relation of Injuries." PROF. J. G. ADAMI.—A course of lectures on the relation of one diseased organ to another and to the whole organism, also two lectures on Cirrhosis of the Liver.

**PROF.** F. G. FINLEY.—"Tuberculosis of the Pleura and Peritoneum" (two lectures).

B. General Clinics.—The afternoons of each day were devoted to Clinical Work in the Wards of the Montreal General and Royal Victoria Hospitals. Clinics in General Surgery were given by PROFESSORS SHEPHERD and BELL, and in General Medicine by PROFESSORS JAS. STEWART, BLACKADER, LAFLEUR and FINLEY.

These Clinics were given on four days of each week and were usually followed by a special Clinic.

The afternoons of the remaining two days, in addition to those which were given in the morning, were occupied entirely by one or more of the following Special Clinics:—

C. Special Clinics — In Ophthalmology, including diseases of the Conjunctiva, Iris, Cornea, and Retina, at the Royal Victoria by PROF. BULLER; and at the Montreal General Hospital by Dr. J. J. GARDNER. Special instruction in the use of the Ophthalmoscope was also given.

In Gynæcology, at the Royal Victoria Hospital, by PROF. WM. GARDNER, and at the Montreal General Hospital by DR. LOCKHART.

In Laryngology and the use of the Laryngoscope, at the Montreal General Hospital, by PROF. BIRKETT.

In external palpation and aseptic midwifery, at the Montreal Maternity Hospital, by PROF. J. C. CAMERON.

In diseases of Children, at the Montreal General Hospital, by PROF. A. D. BLACKADER and DR. G. G. CAMPBELL.

In Dermatology, at the Montreal General Hospital, by PROF. SHEPHERD.

In diseases of the Genito-Urinary Organs, at the Royal Victoria Hospital, by PROF. J. BELL.

In Orthopædics, at the Montreal General Hospital, by DR. C. W. WILSON.

In the 1 monstratic strations, D. Sp

required, ( Pelvimetry Hospital), dun Asylu Methods, ( the Roent curved spi

E. Lal fee was cha included:--Bacteriolog and Blood, RUTTAN; F etc.

E. La Anatomy, 1 DR. J. M. thods, DR. thods in Ley thods; Exan Employmen sis, includin JOHNSTON.

Members are requested May 1st nez the rewhole orr. leura and

each day he Mont-:s in Genand Bell, STEWART,

week and

ddition to ied entire-

including na, at the treal Genruction in

by PROF. spital by

be, at the

he Mont-

Hospital, BELL.

he Royal

pital, by

215

In the mornings, two or more of the following Special Demonstrations, Laboratory Courses or Laboratory Demonstrations, were given.

D. Special Demonstrations.— One or more as required, on modern treatment of Diphtheria, PROF. FINLEY; Pelvimetry and Aseptic Midwifery (at Montreal Maternity Hospital), PROF. J. C. CAMERON; Mental Diseases (at Verdun Asylum), DR. T. J. W. BURGESS; Medico Legal Autopsy Methods, etc., DR. WYATT JOHNSTON; Clinical Application of the Roentgen Rays, PROF. GIRDWOOD, etc. Treatment of curved spine by exercise, DR. TAIT MACKENZIE.

E. Laboratory Courses.—For which a small extra fee was charged to cover the cost of material. These courses included:—Operative Surgery, PROF. ARMSTRONG; Clinical Bacteriology, PROF. ADAMI; Clinical Microscopy of Dejecta and Blood, DR. C. F. MARTIN; Clinical Chemistry, PROF. RUTTAN; Post Mortem Methods, PROF. WYATT JOHNSTON, etc.

E. Laboratory Demonstrations.—Morbid Anatomy, PROF. ADAMI; Medical and Surgical Anatomy, DR. J. M. ELDER and DR. MCCARTHY; Microscopical Methods, DR. GUNN; Urinalysis, PROF. RUTTAN. Practical Methods in Legal Medicine and Hygiene, including Autopsy Methods; Examination of Blood Stains; Disinfection Methods; Employment of cultures and inoculation methods for diagnosis, including seruen diagnosis of typhoid, etc., PROF. WYATT JOHNSTON.

Members of the Profession who purpose attending in 1899 are requested to communicate with the Registrar on or before May 1st next.

## VI. QUALIFICATIONS FOR THE DEGREE.\*

lst. No one entering after September, 1894, will be admitted to the Degree of Doctor of Medicine and Master of Surgery, who shall not have attended Lectures for a period of four nine months' sessions in this University, or some other University, College or School of Medicine, approved of by this University.

2nd. Students of other Universities so approved and admitted, on production of certificate to a like standing in this University, shall be required to pass all Examinations in Primary and Final Subjects in the same manner as Students of this University.

3rd. Graduates in Arts who have taken two full courses in General Chemistry, including Laboratory work, two courses in Biology, including the subjects of Botany, Embryology, Elementary Physiology and dissection of one or more types of Vertebrata, may, at the discretion of the Faculty, be admitted as second-year Students, such courses being accepted as equivalent to the first-year in Medicine. Students so entering will however, not be allowed to present themselves for examination in Anatomy until they produce certificates of dissection for two sessions.

4th. Candidates for Final Examination shall furnish Testimonials of attendance on the following branches of Medical Education, $\dagger$  viz:

ANATOMY. PRACTICAL ANATOMY. PHYSIOLOGY. CHEMISTRY. PHARMACOLOGY AND THERAPEUTICS. PRINCIPLES AND PRACTICE OF SUGERY. OBSTETRICS AND DISEASES OF INFANTS. GYNÆCOLOGY. THEORY AND PRACTICE OF MEDICINE. CLINICAL MEDICINE. CLINICAL SURGERY.	Of which Two full Courses will be re- quired.	
MEDICAL JURISPRUDENCE. GENERAL PATHOLOGY. HYGIENE AND PUBLIC HEALTH. PRACTICAL CHEMISTY. OPHTHALMOLOGY AND OTOLOGY.	Of which One full Course will be re- quired.‡	
BIOLOGY. HISTOLOGY. PATHOLOGICAL ANATOMY. BACTERIOLOGY. MENTAL DISEASES. PEDIATRICS. MEDICAL AND SURGICAL ANATOMY.	Of which One Course will be required.	

\* It shall be understood that the programme and regulations regarding courses of study and examinations contained in this calendar hold good for this calendar year only, and that the Faculty of Medicine, while fully sensible of its obligations towards the students, does not hold itself bound to adhere absolutely, for the whole four years of a student's course, to the conditions now laid down.

† Students enregistered in the Province of Quebec are required to attend and pass examinations in Laryngology and Minor Surgery.

<sup>‡</sup> Proyided, however, that Testimonials equivalent to, though not precisely the same as those above stated, may be presented and accepted. He must a Autopsies, o months, and 5th. Coun received for 6th. No o degree who a this Univers

7th. The during at le General Hos other Hospit University. Patient depa

Sth. He m six months in of a general ported at leas

9th. He m at least nine other lying in

having attent loth. Even l5th day of M testimonials of tion, and mu the Faculty a age of twenty

11th. The i in the subject: 12th. The

the Candidate

#### In Facultate

Ego, A----B coram Deo cordit erga hanc Univer poro artem medio omaia ad ægrotor quæ denique, ini gravi causa vulga

13th. The fe ter of Surgery : ful candidate in admitted gery, who four nine Iniversity, iversity. admitted, Iniversity, and Final ersity.

courses in courses in , Element s of Vertelmitted as s equivalering will amination ection for

ish Testif Medical

hich Two Courses l be rered.

hich One l Course be rered.‡

hich One rse will equired

regarding ld good for fully senf bound to rse, to the

l to attend

h not prepted. He must also produce Certificates of having assisted at six Autopsies, of having dispensed Medicine for a period of three months, and of having assisted at twenty Vaccinations.

5th. Courses of less length than the above will only be received for the time over which they have extended.

6th. No one will be permitted to become a Candidate for the degree who shall not have attended at least one full Session at this University.

7th. The Candidates must give proof of having attended during at least eighteen months the practice of the Montreal General Hospital or the Royal Victoria Hospital or of some other Hospital of not fewer than 100 beds, approved of by this University. Undergraduates are required to attend the Out-Patient departments of the Hospitals during their second year.

Sth. He must give proof of having acted as Clinical Clerk for six months in Medicine and six months in Surgery in the wards of a general hospital recognized by the Faculty, of having reported at least 10 medical and 10 surgical cases.

9th. He must also give proof by ticket of having attended for at least nine months the practice of the Montreal Maternity or other lying in hospital approved of by the University, and of having attended at least six cases.

10th. Every candidate for the degree must, on or before the 15th day of May, present to the Registrar of the Medical Faculty testimonials of his qualifications, entitling him to an examination, and must at the same time deliver to the Registrar of the Faculty an affirmation or affidavit that he has attained the age of twenty-one years.

11th. The trials to be undergone by the Candidate shall be in the subjects mentioned in Section 4.

12th. The following oath of affirmation will be exacted from the Candidate before receiving his degree :

#### SPONSIO ACADEMICA.

In Facultate Medicinæ Universitatis.

Ego, A-\_\_\_B\_\_\_\_, Doctoratus in Arte Medica titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo :- me in omnibus grati aoimi officiis erga hanc Universitatem ad extremum vitæ halitum perseveraturum ; tum poro artem medicam caute, caste, et probe exercitaturum ; et quoad in me est, omala ad ægrotorum corporum salutem corducentia cum fide procuraturum ; quæ denique, inter medendum, visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita praesens mihi spondenti adsit Numen.

13th. The fee for the Degree of Doctor of Medicine and Master of Surgery shall be thirty dollars, to be paid by the successful candidate immediately after examination.

# VII.

# **EXAMINATIONS.\***

Frequent oral examinations are held to test the progress of the Student, and occasional written examinations are given throughout the Session.

The PASS AND HONOR examinations at the close of each Session are arranged as follows :---

## First Year.

Examinations in BOTANY or ZOOLOGY, HISTOLOGY, PHYSIO-LOGY, ANATOMY, CHEMISTRY Theoretical and Practical.

Students who have taken one or more university courses in Botany or Chemistry before entering may be exempted from attendance and examination. Students exempted in their first year subjects are allowed only a pass standing, but may present themselves for examination if they desire to attain an honor standing.

## Second Year.

Examinations in ANATOMY, CHEMISTRY, PRACTICAL CHEM-ISTRY, PHYSIOLOGY, HISTOLOGY, PHARMACOLOGY and THERA-PEUTICS.

## Third Year.

Examinations in PHARMACOLOGY and THERAPEUTICS, ME-DICAL JURISPRUDENCE, PUBLIC HEALTH and PREVENTIVE MEDICINE (including BACTERIOLOGY), GENERAL PATHOLOGY, MENTAL DISEASES, CLINICAL CHEMISTRY, OBSTETRICS, ME-DICINE and SURGERY.

\* See foot Note \*, page 216.

Examina COLOGY. O SURGERY. CLINICAL By mean amount of y year, and a: and Final b A minimu and 75 per c Candidate who fail to first, second examination Suppleme special perm plication stat for each sub No candid of the Facult til he has pa amination. No studen

examinations his Primary Candidates are required, quired to atte tendance the accepted as er and Descript

## Fourth Year.

219

7.

Examinations in MEDICINE, SURGERY, OBSTETRICS, GYNÆ-COLOGY, OPHTHALMOLOGY, CLINICAL MEDICINE, CLINICAL SURGERY, CLINICAL OBSTETRICS, CLINICAL GYNÆCOLOGY, CLINICAL OPHTHALMOLOGY and PRACTICAL PATHOLOGY.

By means of the above arrangement a certain definite amount of work must be accomplished by the student in each year, and an equitable division is made between the Primary and Final branches.

A minimum of 50 per cent. in each subject is required to Pass and 75 per cent. for Honors.

Candidates must pass in all the subjects of each year, those who fail to pass in not more than two subjects of either the first, second or third years may be granted a supplemental examination at the beginning of the following session.

Supplemental examinations will not be granted, except by special permission of the Medical Faculty, and on written application stating reasons, and accompanied by a fee of \$5.00 for each subject.

No candidate will be permitted, without special permission of the Faculty, to proceed with the work of the final year until he has passed all the subjects comprised in the Primary examination.

No student will be allowed to present himself for his final examinations who has not certificates of having passed all his Primary examinations in this University.

Candidates who fail to pass in a subject of which two courses are required may, at the discretion of the Faculty, be required to attend a third course, and furnish a certificate of attendance thereon. A course in Practical Anatomy will be accepted as equivalent to a third course of lectures in General and Descriptive Anatomy.

progress of are given

se of each

y, Physioactical. ty courses exempted ed in their f, but may b attain an

AL CHEM-1d THERA-

TICS, ME-EVENTIVE THOLOGY, RICS, ME-

# 8th. The CIETY'S standing in was given

The total full sessions terial and r four annual

For the a fees will her University. of the last t years. This tickets for Hospitals.

Partial str on payment dollars is ch tenance of c

Students session are five dollars dissecting m charged stud ready paid e

It is suggi fees be transi gistrar, who All fees ar by permission ber 20th. For Gradue For Hospit

# 220

# VIII.

# MEDALS AND PRIZES.

Ist. The "HOLMES GOLD MEDAL," founded by the Medical Faculty in the year 1865, as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine. It is awarded to the student of the graduating class who receives the highest aggregate number of marks in the different branches comprised in the Medical Curriculum.

The Student who gains the Holmes' Medal has the option of exchanging it for a Bronze Medal, and the money equivalent of the Gold Medal.

2nd. THE FINAL PRIZE.—A Prize in Books (or a Microscope of equivalent value) awarded for the best examination, written and oral, in the Final branches. The Holmes' medallist is not permitted to compete for this prize.

3rd. THE THIRD YEAR PRIZE.—A Prize in Books awarded for the best examination, written and oral, in the branches of the third year.

4th. THE SECOND YEAR PRIZE.—A prize in books for the best examination in all the branches of the second year in course.

5th. THE FIRST YEAR PRIZE. A prize in books for the best examination in all the branches of the first year in course.

6th. The "SUTHERLAND GOLD MEDAL," founded in 1878 by the late Mrs. Sutherland in memory of her late husband, Professor William Sutherland, M.D. It is awarded for the best examination in General and Medical Chemistry, together with creditable examination in the primary branches. The examination is held at the end of the third year.

7th. The "CLEMESHA PRIZE IN CLINICAL THERA-PEUTICS," founded in 1889 by John W. Clemesha, M.D., of Port Hope, Ont. It is awarded to the student making the highest marks in a special clinical examination. ed by the of the late of the Fahe graduumber of : Medical

he option y equival-

(or a Miexamina-Holmes'

in Books al, in the

in books e second

books for t year in

founded her late awarded nemistry, oranches. ar. 'HERAa, M.D., making 8th. The BRITISH COLUMBIA GRADUATES' SO-CIETY'S PRIZE is awarded each year for the highest standing in some third year practical subject. In 1897 it was given for clinical surgery, in 1898 for clinical medicine.

# $IX \cdot$

## FEES.

The total Faculty fees for the whole medical course of four full sessions, including clinics, laboratory work, dissecting material and reagents, will be four hundred dollars, payable in four annual instalments of \$100 each.

For the convenience of the undergraduates the Hospital fees will hereafter be payable in the Registrar's office at the University. Ten dollars to be paid at the beginning of each of the last three sessions, viz., the second, third and fourth years. This will entitle each undergraduate to perpetual tickets for both the Montreal General and Royal Victoria Hospitals.

Partial students will be admitted to one or more courses on payment of special fees. An annual University fee of two dollars is charged students of all the faculties for the maintenance of college grounds and athletics.

Students repeating the course of study of any Academic session are not required to pay full fees. A fee of twentyfive dollars will be charged which will include Hospitals, dissecting material, chemical reagents, etc. The same fee is charged students entering from other colleges who have already paid elsewhere fees for the courses taken.

It is suggested to parents or guardians of students that the fees be transmitted direct by cheque or P. O. Order, to the Registrar, who will furnish official receipts.

All fees are payable in advance to the Registrar, and except by permission of the Faculty will not be received later than October 20th.

For Graduation Fees, see page 217. For Hospital Fees, see pages 230 and 234.

## TEXT BOOKS.

ANATOMY.—Gray, Morris, Quain (Eng. Ed.).

PRACTICAL ANATOMY.—Cunningham's Practical Anatomy, Ellis' Demonstrations, Holden's Dissector and Landmarks.

PHYSICS.—Balfour Stewart.

INORGANIC CHEMISTRY.—Remsen, Wurtz's Elementary Chemistry.

ORGANIC CHEMISTRY.—Remsen.

PRACTICAL CHEMISTRY.—Odling.

PHARMACOLOGY and THERAPEUTICS.—Butler, White, Hare and Wood.

PHYSIOLOGY.—Foster and Shore's Physiology for Beginners, Mills' Textbook of Animal Physiology, Foster's Physiology, Mills' Class Laboratory Exercises.

PATHOLOGY.-Ziegler, Coats'.

PRACTICAL PATHOLOGY.--Mallory and Wright, Delafield & Prudden, Boyce.

BACTERIOLOGY.—Muir & Ritchie, Abbott.

- HISTOLOGY-Klein's Elements, Schäfer's Essentials of Histology.
- SURGERY.—Holmes, Moullin, Walsham, Erichsen, Treves. American Text-book of Surgery, Da Costa.

PRACTICE OF MEDICINE.—Osler, Tyson, Wood and Fitz.

CLINICAL MEDICINE.—Musser's Medical Diagnosis; Simon, Klemperer, Rainy and Hutchison.

MEDICAL JURISPRUDENCE.—Reese, Guy and Ferrier.

MENTAL DISEASES.—Insanity and its Treatment, Blandford, 4th Ed.

MIDWIFERY-Lusk, and American Text Book.

DISEASES OF CHILDREN.-Holt, Rotch, Smith and Starr.

GYNÆCOLOGY.—Hart and Barbour, Garrigues, Webster.

HYGIENE .- Parks, Wilson, Rohe.

A

BOTANY.-Gray's Text Book of Histology and Physiology.

Zoology.-Ophthalm( Otology-Laryngolo Operative Dermatolo Medical D:

The Facult tion to the dements in whi education of There are 1 the Museum the Museum the Museum Each collec object of mak lections are of and 5 p.m.

J. F. D. BAILL

For the past nished by the 1 here. The Facu throughout Can portant contrib

During the I portant addition It is particula ZOOLOGY.—Shipley (Invertebrata), Wiedersheim, (Vertebrata. Ophthalmology.—De Schweinitz, Nettleship and Swanzy. Otology.—Pritchard, Dalby.

LARYNGOLOGY.—Watson Williams and Karl Seiler. OPERATIVE SURGERY.—Jacobson, Treves, Kocher. DERMATOLOGY.—Malcolm Morris, Hyde, Crocker, Unna. MEDICAL DICTIONARY.—Gould, Dunglison, Hoblyn.

# XI.

# MUSEUMS.

The Faculty has during recent years devoted special attention to the development of its museums in the several departments in which objective teaching is of especial value in the education of the student.

There are now four museums in the Medical Building: (1) the Museum of Pathology, (2) the Anatomical Museum, (3) the Museum of Public Health and Preventive Medicine, (4) the Museum of Pharmacy.

Each collection is arranged and selected with the primary object of making it a teaching museum. These several collections are open to students and the public between 9 a.m. and 5 p.m.

#### PATHOLOGICAL MUSEUM.

PROF. J. G. ADAMI, DIRECTOR. E. J. SEMPLE, CURATOR.

J. F. D. BAILLY, OFFICIER D'ACADEMIE, OSTEOLOGIST AND ARTICULATOR.

For the past fifty years, the rich Pathological Material furnished by the Montreal General Hospital has been collected here. The Faculty is also greatly indebted to many medical men throughout Canada and different parts of the world for important contributions to the Museum.

During the past few years, numerous and extremely important additions have been made to the Medical Museum.

It is particularly rich in specimens of Aneurisms. In ad-

Anatomy, nd Land-

tary Che-

e, Hare

r Begin-Foster's

lafield &

of His-

Treves.

1 Fitz. ; Simon,

r. andford,

starr.

siology.

dition to containing a large number of the more common varieties of these formations, there are specimens of such rare conditions as Aneurism of the Hepatic and Superior Mesenteric Arteries, Traumatic Aneurism of the Vertebral, together with several of the cerebral and pulmonary arteries. The most important collection probably in existence of hearts affected with "Malignant Endocarditis" is also found. The Faculty are indebted to Prof. Osler, late of this University, for this collection.

The Museum contains also a very large collection of different forms of calculi. The Faculty are mainly indebted to the late Prof. Fenwick for this collection. They have been mounted by Prof. Z. W. Hammond.

During the past six years, M. Bailly, osteologist and articulator (lately with Tramond of Paris), has been engaged in arranging and mounting the very large number of specimens of disease and injuries of bones which have been accumulating for years. In this collection are to be found examples of fractures and dislocations of the spine, osteoporosis, congenital dislocation of the hip, fracture of the astragalus, multiple exostoses, &c., &c.

The Pathological Museum has recently undergone complete alteration. All the old fixtures have been removed, a new gallery has been erected about both rooms, reached by a single staircase in a small intermediate room in which is placed the medico-legal collection.

The first room on entering contains the extensive bone collection and calculi. The second and larger room is reserved for the moist preparations, which are arranged so as to be of easy access for the student. Water color drawings made from the fresh specimens are mounted on swinging frames and also form a frieze at the ceiling. These serve to recall the fugitive colors of those preparations which become more or less altered on keeping.

Numerous specimens have been added to the museum during the past year. There were sent in from the Surgical and medical wi different de

## MUSEU

## MUS

This Mus cruing throi Lord Strath The muse the number : the best mo tion and ven modern sani disadventage of refuse, etc The Direc tributions of

- I. The Sa
- 2. Richard
- 3. Maigen
- 4. L. Cas
- 5. Messrs.
- 6. The Sa
- 7. The Hy
- 8. Messrs.
- 9. The Ex
- 10. A. B. F
- 11. Fischer,
- 12. J. W. H
- 13. Wormse
- 14. The Lai
- The Departs

ing, Sanitary I

e common is of such perior Mertebral, toy arteries. e of hearts und. The Jniversity,

> 1 of differidebted to have been

and artingaged in specimens ccumulatexamples osis, conalus, mul-

> one commoved, a eached by which is

sive bone om is reged so as drawings swinging serve to become

> eum durgical and

225

medical wings of the Royal Victoria Hospital, and from the different departments of the Montreal General Hospital.

## MUSEUM OF PUBLIC HEALTH AND PREVENTIVE MEDICINE.

# DIRECTOR, R. F. RUTTAN. MUSEUM ASSISTANT, CHARLES STEVENSON.

This Museum has been established from the interest accruing through the endowment of the Chair of Hygiene by Lord Strathcona and Mount Royal in 1893.

The museum at present is chiefly of interest on account of the number and excellence of the working models, illustrating the best modern methods of sterilisation, disinfection, filtration and ventilation, together with a very useful collection of modern sanitary apparatus, illustrating the advantages and disadventages of the water carriage system for the disposal of refuse, etc.

The Director has much pleasure in acknowledging contributions of value from:

1. The Sanitary Construction Company of New York.

2. Richard King, King, Sprague & Co., New York.

3. Maigens Filtre Rapide Co., London, Eng.

4. L. Casella, London, Eng.

5. Messrs. Doulton & Co., Lambeth Pottery, London, E.C.

6. The Sanitary Institute, Parke's Museum, London.

7. The Hygienic Referendum, Hornsey, London, Eng.

8. Messrs. Newton & Co., London.

9. The Expanded Metal Co., London.

10. A. B. Reck, Copenhagen, Denmark.

11. Fischer, Filter Plate Co.

12. J. W. Hughes, Montreal.

13. Wormser, Filterplatten-Werk, Worms, Germany.

14. The Laing Packing Company, Montreal.

The Department of Hygiene is also indebted to Mr. Fleming, Sanitary Engineer, for assistance and advice.

# ANATOMICAL MUSEUM.

226

## DIRECTOR, PROFESSOR F. J. SHEPHERD. M. JULES BAILLY, OSTEOLOGIST AND ARTICULATOR.

This Museum occupies a large room on the same floor and adjoining the Anatomy Lecture Room and Dissecting Room. Smaller apartments in connection are used for private research, which is encouraged in every way by the Faculty.

The Museum is well furnished and comfortable, and students have every opportunity of studying Human, Comparative and Applied Anatomy.

This department has, during the past few years, added a very complete collection of plaster and papier maché models by Steger, alter the well-known works of His and Braune, comprising:

(a) A complete set of Steger's brain sections.

(b) Models of the cerebro-spinal and sympathetic nervous systems.

(c) Professor Cunningham's well-known and beautiful casts of the head, showing the relation of the cerebral convolutions to the skull and its sutures.

A large collection of human brains, made by Professor Osler, formerly of this University, exhibiting the various types and extremes.

A large and rare collection of anomalies of the Renal vessels and ureter, and the aorta and its branches.

In Comparative Anatomy the student will find a fair amount of material, the study of which will greatly aid him in the elucidation of many points in Human Anatomy.

Many skeletons mounted by Mons. Jules Bailly, Articulator to the University, representing the various classes, orders, genera and species of the animal kingdom may be consulted.

A large collection, showing the pectoral girdle in birds, has been prepared under the supervision of the Professor of Anatomy.

Moist and dry preparations of dissections, a large collection

of frozen cro mal relation for study. During th

been presen acknowledge

# ASSI

The Libra wards of fifte connected wi The valuab Howard, Gec ston Alloway They consist complete coll

The standa with complet shelves. Stuc library betwee for the use of

This Societ Faculty, meets and Winter T and discussion: been establishe ing open to a 3rd year stude jects. The paj Professoriate, a subjects is awa

## ATOR.

floor and ng Room. private re-Faculty. , and stu-Compara-

, added a né models 1 Braune,

: nervous

tiful casts volutions

Professor e various

enal ves-

r amount m in the

Articuisses, orbe con-

of Ana-

ollection

## 227

of frozen cross sections of the human body, showing the normal relations of the viscera, etc., will be found convenient for study.

During the past year numerous valuable specimens have been presented to the Museum and its stores, which will be acknowledged in the next Calendar.

# XII.

## LIBRARY.

# LIBRARIAN, FROF. F. G. FINDLEY. ASSISTANT LIBRARIAN, Miss M. R. CHARLTON.

The Library of the Medical Faculty now comprises upwards of fifteen thousand volumes, the largest special library connected with a medical school on this continent.

The valuable libraries of the late Professors Robert Palmer Howard, George Ross, Richard L. MacDonnell and T. Johnston Alloway, have been donated to the Medical Faculty. They consist of several thousand volumes, including a very complete collection of works on Diseases of the Chest.

The standard text-books and works of reference, together with complete files of the leading periodicals, are on the shelves. Students may consult any work of reference in the library between 9 a.m. and 5 p.m. A library reading room for the use of students is provided.

# XIII.

# McGILL MEDICAL SOCIETY.

This Society, composed of enregistered Students of the Faculty, meets every alternate Saturday during the Autumn and Winter Terms, for the reading of papers, case reports and discussions on medical subjects. A prize competition has been established in senior and junior subjects, the senior being open to all to write upon, while only the 1st, 2nd and 3rd year students are allowed to compete in the junior subjects. The papers are examined by a board elected from the Professoriate, and a first and second prize in each division of subjects is awarded to the successful candidates.

Names of competitors and titles of papers shall be sent to the Chairman of the Programme Committee before September 1st, and all papers shall be subject to the call of the Committee on October 1st. All papers shall be handed in for examination on or before January 10th.

The Students' reading room has been placed under the control of this Society, in which the leading English and American Medical Journals are on file as well as the leading daily and weekly newspapers of the Dominion.

The annual meeting is held the first week of the Spring Term, when the following officers are elected : Hon. President, 'elected from the Faculty; President, Vice-President, Secretary, Assistant Secretary, Treasurer, Reporter, Pathologist, and three Councilmen (of whom two shall be elected from the Faculty.)

# XIV.

# COST OF LIVING, &c.

This will, of course, vary with the tastes and habits of the Student, but the necessary expenses need not exceed those in smaller towns. Good board may be obtained from \$15 to \$20 per month. A list of boarding-houses, which are inspected annually by a sanitary committee, is prepared by the Secretary of the University, and may be procured from the Janitor at the Medical College.

## XV.

## HOSPITALS.

The City of Montreal is celebrated for the number and importance of its public charities. Among these its public hospitals are the most prominent and widely known. Those in which medical students of McGill University will receive clinical instruction are: (1.) The Montreal General Hospital. (2.) The Royal Victoria Hospital. (3). Montreal Maternity Hospital.

The Montreal General Hospital has for many years been the most extensive clinical field in Canada. The old buildings, having for hospital the addition morial, and gical theatre been entirely plans.

The Roya Street, which the finest mo for the recep affords excep practical train

This hospit clinical field i It consists

The Surgici taining four w vening and co theatre of the three hundred are preparation geons' rooms, pavilions which one hundred p

The old part ardson and Me completely reb Department. 7 and is arrange wards for Gyr number of priva istry. There is ing 150 student up in the most 1 building is for be sent to e Septemthe Comded in for

or the conind Ameriding daily

he Spring Hon. Pre-President, , Patholobe elected

> bits of the ceed those om \$15 to ch are inred by the from the

> > mber and its public n. Those ill receive Hospital. Maternity

ears been old buildings, having proved inadequate to meet the increased demand for hospital accommodation, have recently been increased by the addition of two surgical pavilions; the Campbell Memorial, and the Greenshields Memorial, and of a new surgical theatre. The interior of the older buildings now has been entirely reconstructed on the most approved modern plans.

The Royal Victoria Hospital at the head of University Street, which in structure and arrangements ranks among the finest modern hospitals of either continent, was opened for the reception of patients the first of January, 1894, and affords exceptional opportunities for clinical instruction and practical training.

#### Montreal General Hospital.

This hospital has been for many years the most extensive clinical field in Canada.

It consists of a Surgical and Medical Department.

The Surgical Department has two large pavilions, containing four wards 135 feet long by 35 broad, with an intervening and connecting building in which is a large operating theatre of the most modern type, capable of seating over three hundred and fifty students. In connection with this are preparation, etherising, instruments, sterilising and surgeons' rooms, also smaller operating rooms. The Surgical pavilions which were built three years ago, accommodate over one hundred patients.

The old part of the hospital, consisting of the Reed, Richardson and Morland wings, has during the past year been completely rebuilt and remodelled and forms the Medical Department. This part contains four wards, 100 feet by 40 and is arranged for 150 beds. In this building there are wards for Gynæcological and Ophthalmogical patients, a number of private wards and laboratories for Clinical Chemistry. There is also a medical amphitheatre capable of seating 150 students and a gynæcological operating room fitted up in the most modern manner. The central part of the old building is for administration purposes. A completely new and commodious out-door patient department has been provided on the ground floor of the Richardson wing, and there is ample accommodation for the various special departments as well as large rooms for general medical and surgical patients.

The Pathological Department is a completely new building in which are the post-mortem theatre and rooms for microscopical and bacteriological work, and also a mortuary and chapel. In this building students are offered every opportunity of perfecting their knowledge of morbid anatomy and pathological histology.

The old Fever Wards on the grounds of the Hospital, have been completely remodelled, and are now used as a laundry and kitchen.

A much larger number of patients receive treatment in the Montreal General Hospital than in any other Canadian Hospital. Last year's report shows that between two and three thousand Medical and Surgical cases were treated in the wards, and the great proportion of these were acute cases, as may be gathered from the fact that the average duration of residence was only 24.02 days. Upwards of thirty-two thousand patients are annually treated in the out-door department of this Hospital.

Annual tickets entitling students to admission to the Hospital must be taken out at the commencement of the session, price \$5.00. These are obtained at the College. Perpetual tickets will be given on payment of the third annual fee.

## The Royal Victoria Hospital.\*

This Hospital is situated a short distance above the University Grounds on the side of the Mountain, and overlooks the city. It was founded in July, 1887, by the munificence of Lord Mount Stephen and Sir Donald Smith, who gave half a million dollars each for this purpose.

The buildings, which were opened for the reception of pa-

\* Fees for this hospital are the same as those for the Montreal General Hospital, p. 74

tients on t Saxon Sne 250 and 30 The Hos ed togethen centre and immediate wing and n patients.

The Adn for the resi tics. The rooms are a The Medi

long by 26 inches, and feet by 12 fe for 250, and and other pu tion with it

In this wi a post morte and laborato of morbid ti others for po cial laborato Pathology, I The Surgi

long by 26 f feet, and seve by 12 feet; al 250, with six covery purpe

In this wir thalmology.

## $\mathbf{230}$

atient dethe Richr the varior general

v building ooms for mortuary every opanatomy

oital, have a laundry

ent in the lian Hosand three ed in the ute cases, duration thirty-two or depart-

> the Hose session, Perpetual 1 fee.

the Unioverlooks ficence of gave half

on of pa-

eral Hospital,

231

tients on the first of January, 1894, were designed by Mr. Saxon Snell of London, England, to accommodate between 250 and 300 patients.

The Hospital is composed of three main buildings connected together by stone bridges; an Administration Block in the centre and a wing on the east side for medical patients, in immediate connection with which is the Pathological wing and mortuary, and a wing on the west side for surgical patients.

The Administration block contains ample accommodation for the resident medical staff, the nursing staff and domestics. The patients' entrance, the dispensary and admission rooms are also situated in this building.

The Medical wing contains three large wards, each 123 teet long by 26 feet 6 inches wide, one ward 40 feet by 26 feet 6 inches, and fifteen private and isolation wards averaging 16 feet by 12 feet, also a medical theatre with a seating capacity for 250, and three rooms adjacent to it for clinical chemistry and other purposes. North of this wing and in direct connection with it are the Pathological laboratories and mortuary.

In this wing are situated the mortuary proper, the chapel. a post mortem room capable of accommodating 200 students, and laboratories for the microscopic and bacteriological study of morbid tissues, some designed for the use of students and others for post graduation courses and special research. Special laboratories for Pathological chemistry, Experimental Pathology, Bacteriology and Photography are also provided.

The Surgical wing contains three large wards, each 123 feet long by 26 feet 6 inches wide, four wards each 40 feet by 32 feet, and seven private and isolation wards, averaging 16 feet by 12 feet; also a surgical theatre with a seating capacity for 250, with six rooms adjacent for preparation and after recovery purposes.

In this wing are also the wards for Gynæcology and Ophthalmology.

# XVI.

During the Session of 1897-98, two Medical, two Surgical, one Gynæcological and one Ophthalmological clinic will be held weekly in both the Montreal General and Royal Victoria Hospitals.

In addition, tutorial instruction will be given in these different departments in the wards, out-patient rooms and laboratories. Special weekly clinics will be given in the Montreal General Hospital on Dermatology and Laryngology and and in the Royal Victoria Hospital on diseases of the Genito-Urinary system.

CLINICAL CLERKS in the medical and surgical wards of both Hospitals are appointed every three months, and each one during his term of service conducts, under the immediate directions of the Clinical Professors, the reporting of all cases in the ward allotted to him. Students entering on and after October 1893 will be required to show a certificate of having acted for six months as clinical clerk in medicine and six months in surgery, and are required to have reported at least ten cases in medicine and ten in surgery. The instruction obtained as clinical clerk is found to be of the greatest possible advantage to Students, as affording a true *practical* training for his future professional life.

DRESSERS are also appointed to the Out-door Departments. For these appointments, application is to be made to the Assistant Surgeons, or to the resident surgeon in charge of the out-patient department.

The large number of patients affected with diseases of the eye and ear, now attending the special clinics at both hospitals, will afford Students ample opportunity to become familiar with all the ordinary affections of those organs, and to make themselves proficient in the use of the ophthalmoscope, and it is hoped that every student will thus seek to gain a practical knowledge of this important branch of Medicine and Surgery. Operations are performed on the eye by the Ophthalmic Si and Stude practicable they remai There ai Gynæcolog Students ai edge under gynæcolog been the lin who, in rot struction in and the use The Clini

tology, and training in a medical stue A special has been es Infectious ally, the for and the latte

The Facul Corporation important ad provements i greatly increa of obstetrics Budin phante every facility of the variou under the dire devotes much Students who the autumn ar

## 232

Surgical, c will be yal Vic-

in these s and laie Montlogy and : Genito-

wards of und each nmediate all cases and after f having and six l at least struction test pospractical

> rtments. to the narge of

s of the h hospime fam-, and to loscope, ) gain a cine and he Oph-

thalmic Surgeon after the outdoor patients have been seen, and Students are invited to attend the same, and as far as practicable, to keep such cases under observation so long as they remain in the Hospital.

There are now special departments in both Hospitals for Gynæcology, presided over by Specialists in the branches. Students are thus enabled to acquire special technical knowledge under skilled direction. The plan of teaching practical gynæcology for the past five years with marked success has been the limitation of the number of Students to two or three, who, in rotation, assist at the examinations, and receive instruction in the diagnosis and treatment of uterine diseases and the use of gynæcological instruments.

The Clinics at the Montreal General Hospital in Dermatology, and Laryngology are very large and afford a practical training in affections of the skin and throat rarely obtained by medical students.

A special clinic for diseases of the Genito-Urinary Organs has been established at the Royal Victoria Hospital.

Infectious diseases and Insanity will also be taught clinically, the former in the special wards for infectious diseases and the latter at the Verdun Hospital for the Insane.

## The Montreal Maternity.

The Faculty has great pleasure in announcing that the Corporation of the Montreal Maternity has recently made very important additions to its huilding, and has still further improvements in contemplation. Students will therefore have greatly increased facilities for obtaining a practical knowledge of obstetrics and diseases of infancy. An improved Tarnier-Budin phantom is provided for the use of the students, and every facility afforded for acquiring a practical knowledge of the various obstetric manipuations. The institution is under the direct supervision of the Professor of Midwifery, who devotes much time and attention to individual instruction. Students who have attended the course on obstetrics during the autumn and winter terms of the third year will be furnished with cases in rotation, which they will be required to report and attend till convalescence. Clinical midwifery has been placed upon the same basis as Clinical Medicine and Surgery, and a final Clinical examination instituted. Regular courses of clinical lectures are given throughout the session. Special attention being paid to the important subject of infant feeding. The Walker Gordon process of modifying milk is explained and demonstrated. During the autumn and winter terms the Demonstrator of Obstetrics gives Clinical Demonstrations in the wards and instruction in operative work on the phantom. Students will find it very much to their advantage to pay special attention to their Clinical work during the spring term of the third year and the following summer. Two resident accoucheurs are appointed yearly from the graduating class to hold office for a period of six months each.

Fee for twelve months, \$12.00, payable at the Maternity Hospital.

## XVII.

## STUDENTS' APPOINTMENTS.

Montreal General Hospital-Seven Resident Medical Officers.

The following were the candidates at the examination, successful for positions on the house staff of the Montreal General Hospital, for the year beginning May 1st, 1897:—A. R. Pennoyer, M.D.; E. M. Von Eberts, M.D.; F. R. Wainwright, M.D.; H. M. Robertson, M.D.; Charles C Gurd, M.D.; W. K. Brown, M.D., House Pathologist; E. S. Harding, M.D., Anæsthetist; H. Wolferstan Thomas, M.D., Extern Pathological assistant.

Royal Victoria Hospital—Six Resident Medical Officers. The following graduates in 1897 were appointed to fill vacancies in the Royal Victoria Hospital.

In Medicine, J. G. MacDougall, M.D.; E. C. McCallum, M.D., and A. S. McElroy, M.D.

In Surgery, C. B. Keenan, M.D., and J. J. Roy, M.D.

In Ophthalmology, I. G. Campbell M.D., D.V.S.

University Maternity-Two Resident Medical Officers.

## James 1 Clinical

"

.

"

Out-door Dressers Medical Post-mor Student 1 Prosector Assistants Assistants

 In the the discretio room. Pers admonition 1 of the Facult the Student, ing, and may 2. Absence cused by new when called absence, fron keeping of a the Faculty. 3. While in

themselves in 4. When Si above rules, t qualify from c Classes, or re

to report has been Surgery, r courses Special ant feedlk is exid winter Demonwork on their adk during summer. rom the ths each. **I**aternity

lical Of-

ion, suceal Gen-:---A. R. nwright, I.D.; W. g, M.D., I Patho-Officers. D fill va-:Callum,

fficers.

[.D.

## 235

James Barclay, M.D., was appointed in 1897. Clinical Clerk, Gynæcology.

- " Laryngology.
- " Diseases of Children.
- " Dermatology.
- " Diseases of Nervous System.

Out-door Dressers.

66

44

....

"

Dressers in Eye and Ear Department.

Medical Clinical Clerks. Post-mortem Clerks.

Ctudent Demonstrates

Student Demonstrators of Anatomy, 4 third-year Students.

Prosectors to Chair of Anatomy, 4.

Assistants in Practical Histology Course, 2. Assistants in Practical Physiology Course, 4. Assistants in Practical Chemistry, 6.

## VIII.

## RULES FOR STUDENTS.

1. In the case of disorderly conduct, any Student may, at the discretion of the Professor, be required to leave the classroom. Persistence in any offence against discipline, after admonition by the Professor, shall be reported to the Dean of the Faculty. The Dean may, at his discretion, reprimand the Student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from classes.

2. Absence from any number of lectures can only be excused by necessity or duty, of which proof must be given, when called for, to the Faculty. The number of times of absence, from necessity or duty, that shall disqualify for the keeping of a Session, shall in each case be determined by the Faculty.

3. While in the College, Students are expected to conduct themselves in the same orderly manner as in the Class-room.

4. When Students are brought before the Faculty under the above rules, the Faculty may reprimand, impose fines, disqualify from competing for prizes and honors, suspend from Classes, or report to the Corporation for expulsion.

## Faculty of Comparative Medicine and Veterinary Science.

THE PRINCIPAL (ex-officio).

#### Frofessors :

D. MCEACHRAN, F.R.C.V.S., V.S. Edin., D.V.S., Dean of the Faculty. M. C. BAKER, D.V.S.

CHARLES MCEACHRAN, D.V.S., Registrar of the Faculy.

## Associate Professors :

G. P. GIRDWOOD, M.D. GEO. WILKINS, M.D. D. P. PENHALLOW, B.Sc. WESLEY MILLS, M.A., M.D., D.V.S. J. G. ADAMI, M.A., M.D. (Cantab.).

N. D. GUNN, M.D. C

C. F. MARTIN, B.A., M.D.

#### Examiners :

The Professors and Associate Professors, together with the following gentlemen nominated by the Provincial Government:

J. A. COUTURE, D.V.S., 49 Garden Street, Quebec.

A. MCCORMICK, D.V.S., Ormstown, P.Q.

A. W. HARRIS, D.V.S., Ottawa, Ont.

JOHN M. PARKER, D.V.S., Haverhill, Mass.

FRANK MILLER, V.S., New York.

A. W. CLEMENT, D.V.S., Baltimore, Md., U.S.

Matriculation Examiner.-A. N. SHEWAN, M.A., Lansdowne School, Montreal.

## SESSION 1898-99.

The ninth Session of the Faculty (being the thirty-third of the Montreal Veterinary College) will be opened on Wednesday, 21st September, 1898, by an introductory lecture, at 8 p.m., in the lecture-room of the Faculty, No. 6 Union Avenue. The regular course of lectures will begin on the following day, at the hours named in the time table, and will continue till the end of March. The hours of lectures will be announced later, together wi course as he the Faculty

The Mont The comp three years. allowed to I attendance o cultural Coll branch of stu

Allowance parative Mec tickets for at curriculum f

Graduates privileges wil in the subjec from satisfact consider it to

Graduates taking the de jects for one aminations on botany excep

Occasional out matricula of lectures. § be entitled to students, nor student subsec Faculty.

Every student ficate of educat submit himself reading aloud, ( together with any alterations which may be necessary, the course as herein announced being subject to such changes as the Faculty may see fit to make.

The Montreal Veterinary College was inaugurated in 1866. The complete course of study in this Faculty extends over three years. Graduates of recognized Medical Colleges are allowed to present themselves for examination after regular attendance on one full course; graduates of recognized Agricultural Colleges in which Veterinary Science constitutes a branch of study, after regular attendance for two full courses.

Allowances will be made to students of Human or Comparative Medicine, or others who can produce certified class tickets for attendance on any of the subjects embraced in the curriculum from any recognized college or university.

Graduates and students who avail themselves of the above privileges will nevertheless be required to pass an examination in the subjects comprised in the three years' course, unless, from satisfactory evidence otherwise produced, the examiners consider it to be unnecessary.

Graduates of recognized Veterinary Colleges desirous of taking the degree may do so by attendance on the final subjects for one full session, but will be required to pass the examinations on all the subjects embraced in the curriculum, botany excepted.

Occasional and agricultural students will be received without matriculation for attendance on any particular series of lectures. Such students will not be examined, nor will they be entitled to receive class certificates except as occasional students, nor will such attendance be accepted should the student subsequently wish to become a regular student of the Faculty.

## MATRICULATION.

Every student, previous to his admission, must produce a certificate of educational requirements satisfactory to the Faculty, or submit himself to a matriculation examination in (1) writing, (2) reading aloud, (3) dictation, (4) English grammar and (5) compo-

237

Faculty.

đ

., D.V.S. Cantab.).

D.

e follow-

School,

hird of 'ednese, at 8 venue. ng day, till the 1 later,

In considerati has the privileg whole course; course in Bota ground fees. T sident in the Prothe Faculty in commendation fi they reside, procation and in ot

In all cases, quired to give a failing to do s Sessions which t ed for nor will such aid.

Students of thi and the final yea for that year onl Persons desiro

to the Dean of a ticket or ticket All students sl

gards attendance A class-book

which the presen and the said class ing to be held be ment of the exan of such class-boo been sufficiently ceed to the exam

Punctual attend quired of each excuse, or inatter in after admonitie of the Faculty, v Faculty, 'as he may from it, Students

238

sition, (6) outlines of geography, with special reference to North America, (7) arithmetic, including vulgar and decimal fractions.

NOTE.-It is contemplated to add the rudiments of Latin to the matriculation in the near future.

A. N. Shewan, M.A., will hold the matriculation examination on Saturday, 17th September, 9 a.m., at the College, 6 Union Avenue, when all those intending to enter the course should present themselves for examination. Candidates possessing certificates of education or of previous matriculation should produce them for the inspection and approval of the examiner. Graduates of any Faculty in a recognized University or Agricultural College are not required to matriculate.

No College is recognized unless its students are required to matriculate.

## REGISTRATION AND PAYMENT OF FEES.

The following are the College regulations:-

All students desirous of attending the classes shall, at the commencement of each session, enrol their names and residences in the register of the Faculty, and procure from the Registrar a ticket of registration, for which each student shall pay a fee of \$5.

The said register shall be closed on the last day of October in each year. The fees are payable to the Registrar, and all class tickets will be issued by him, and must be paid in advance at the time of registration; the Registrar will on no consideration issue tickets till the fees are paid. Intending students must govern themselves accordingly.\*

All students must register, including those who receive free bursaries.

Fees for the whole course are \$75 per session, and, in all cases, must be paid on entering. Matriculation fee, \$5, which is to be paid prior to the examination; \$5 for registration, and \$5 for reregistration, payable at the beginning of each of the following two Sessions, and \$20 on receiving the diploma. Students who are allowed time for previous study will be required to pay full fees, and \$5 for registration each session. Payments must be made in all cases as above.

In addition to the above Faculty fees, every undergraduate must pay an annual fee of \$2 for maintenance and use of college grounds.<sup>†</sup>

*Owing to losses incurred l	by non-payment of fees, the Re	gistrar must refuse registra.
tion till the fees are paid,	which may be returned if the a	pplicant fails to matriculate
† First Year. Fees \$75         Matriculation "       5         Registration "       5         Grounds "       2         \$87	Second Year. Fees \$75 Registration "5 Grounds "2 \$82	Third Year. Fees         \$75           Registration         "

e to North actions. sulation in the

nination on on Avenue, sent themof educafor the inny Faculty ot required

equired to

S.

the comices in the r a ticket 5.

Detober in all class t the time ue tickets hemselves

free bur-

all cases, is to be 5 for rewing two who are full fees, made in

rounds.†

 239

## STUDENTS OF THE PROVINCE OF QUEBEC.

In consideration of the annual grant, the Council of Agriculture has the privilege of sending thirteen pupils, free of expense, to the whole course; such students, however, pay a fee of \$5 for the course in Botany, \$5 annually for registration, and \$2 annual ground fees. These Bursaries may be obtained by young men resident in the Province of Quebec, by application made to the Dean of the Faculty in the handwriting of applicant, accompanied by a recommendation from the Agricultural Society of the district in which they reside, provided the Council considers them qualified by education and in other respects for entering the College.

In all cases, except when specially arranged, Bursars will be required to give a guarantee that they will attend three Sessions, and failing to do so, they shall be required to pay the fees for the Sessions which they have attended. These Bursaries are not intended for nor will they be given to such students as do not require such aid.

## GENERAL REGULATIONS.

Students of this Faculty will be graded as of the first, the second, and the final year. In each year students will take the studies fixed for that year only, unless by special permission of the Faculty.

Persons desirous of entering as Occasional Students shall apply to the Dean of the Faculty for admission as such, and shall obtain a ticket or tickets for the class or classes they desire to attend.

All students shall be subject to the following regulations as regards attendance and conduct:—

A class-book shall be kept by each Professor and Lecturer, in which the presence or absence of Students shall be carefully noted; and the said class-book shall be submitted to the Faculty at a meeting to be held between the close of the lectures and the commencement of the examinations; and the Faculty shall, after examination of such class-book, decide which students shall be deemed to have been sufficiently regular in their attendance to entitle them to proceed to the examination in the respective classes.

Punctual attendance on all the classes proper to his year is required of each Student. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class-room, if persisted in after admonition by the Professor, will be reported to the Dean of the Faculty, who may reprimand the Student or report to the Faculty, as he may decide. While in the building, or going to or from it, Students are expected to conduct themselves in the same orderly manner as in the Class-rooms. Any Professor observing improper conduct in the Class-rooms, or elsewhere in the building, will admonish the Student, and, if necessary, report him to the Dean.

When Students are reported to the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes or honors, suspend from classes, or report to the Corporation for expulsion.

Any Students injuring the furniture or building will be required to repair the same at his own expense, and will, in addition, be subject to such penalty as the Faculty may see fit to impose.

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

The College year shall be divided into two terms, the first extending to the Christmas vacation, and the second from the expiration of the Christmas vacation to the 30th March following.

Each lecture shall be of one hour's duration, but the Professors shall have the right to substitute an examination for any such lecture.

At the end of each term there shall be a general examination of all the classes, under the superintendence of the Professors and such other examiners as may be appointed by the Corporation. The results shall be reported as early as possible, to the Faculty.

The students have all the privileges of the McGill Medical Faculty's Laboratories, which are thus described in their annual calendar:—

### PHYSIOLOGICAL LABORATORY.

The Physiological Laboratory, which is situated on the ground floor, is supplied with the most modern apparatus for the practical teaching of this most important branch of the medical curriculum. It contains, amongst other valuable instruments; kymographs, various manometers, etc., for demonstrating blood pressure; myographs, rheocords, moist chambers, etc., and various electrical appliances for demonstrating experiments in connection with nerve and muscle; special apparatus for illustrating various points in respiration; apparatus specially suitable for demonstrating the processes of digestion, as well as the chemical composition and nature of the secretions, and the chief constituents of the tissues and nutritive fluids. The laboratory is arranged in such a way as to permit of Students assisting at, and taking part in, these demonstrations. During the past session, important additions of apparatus have been made to the Physiological Laboratory.

The cou portion of organic, in which is av lofty and v one time. bered table session. E vided with well as a ( apparatus e vided by th without ext apparatus b: The labor tion, sulphu etc., giving sound and p

In the Pa for Students or private p re-built recen pathological The demon laboratory, sj

logical Histo Through th house previou

ed into a Path and Demonst fifty students. ratus for the Upon the first paration and Bacteriologica and store room

Accommoda who desire to observing building, m to the

he above guardians, m classes,

e required dition, be ie. than one ed to the

first exie expirag. Professors th lecture. ination of ssors and rporation. culty. Faculty's ndar:--

e ground practical rriculum. nographs, re; myoelectrical ith nerve its in rethe proid nature nd nutriio permit strations. ave been

## 241

## CHEMISTRY.

The course in chemistry embraces Chemical Physics, in the first portion of the course, the theory of Chemistry, both inorganic and organic, in the latter part of the course. The Chemical Laboratory, which is available to the Students of Comparative Medicine, is large, lofty and well lighted, and can accommodate comfortably 76 men at one time. Each Student when entering on his course, has a numbered table in the laboratory assigned to him for his use during the session. Each table has its own gas and water fixtures, and is provided with shelves for its corresponding set of reagent bottles, as well as a drawer and locker containing a modern set of chemical apparatus especially adapted for the work. This apparatus is provided by the Professor of Chemistry, and supplied to each Student without extra charge. The Student is required to pay only for apparatus broken or destroyed.

The laboratory is furnished with a large draught closet for ventilation, sulphuretted hydrogen apparatus, gas and combustion furnaces, etc., giving to the student unsurpassed advantages for acquiring a sound and practical knowledge of medical chemistry.

#### PATHOLOGICAL LABORATORY.

In the Pathological Laboratory accommodation will be provided for Students or practioners who desire to carry on advanced study or private pathological research. The laboratory has been entirely re-built recently, and is well stocked with the usual apparatus for pathological and bacteriological work.

The demonstrations in Morbid Anatomy will be given in a small laboratory, specially arranged for the work. The classes in Pathological Histology will be held in the Pathological Laboratory.

Through the generosity of the late Mr. J. H. R. Molson, the large house previously occupied by Professor Harrington has been converted into a Pathological Laboratory, having on the upper floor the Class and Demonstration room, capable of holding practical classes of fifty students. This is fully fitted with microscopes and other apparatus for the purpose of Pathological Histology and Bacteriology. Upon the first floor are the Library and Professor's room, the Preparation and Research rooms, with a smaller Incubator room for Bacteriological use. On the ground floor are situated the animal and store rooms and the apartments of the assistant.

Accommodations will be provided for students or practitioners who desire to carry on advanced study or pathological research.

## HISTOLOGICAL LABORATORY.

The Histological Laboratory is a large, well-lighted room on the second floor. It is so arranged that over eighty students can be present at the microscopical demonstrations. For this purpose it is supplied with thirty-five microscopes, all from the well-known makers, Zeiss, Hartnock and Leitz. From the large number of microscopes employed, students will have special facilities in studying and making themselves thoroughly acquainted with the specimens that are the subjects of demonstration.

#### PRACTICAL MICROSCOPY.

This is an entirely optional course, in charge of Prof. Wilkins, assisted by Dr. Gunn. It is intended especially for teaching the technique of Microscopy. Students will be shown how to examine blood, etc., also to cut, stain, and mount specimens. For this purpose, they will have furnished them normal structures, with which they will be able to secure a cabinet of at least 100 specimens, which will be of great benefit when in practice. Reagents and everything, except cover glasses and cabinet cases, provided. Fee, \$8.

#### COURSES OF LECTURES.

#### BOTANY.

#### D. P. PENHALLOW, M.A.Sc.

The course in Botany is designed to give Students a thorough grounding in the general morphology of plants and ability to determine species. It includes a practical study of the Spermaphytes and Pteridophytes during the first half of the session, and after Christmas a Course of lectures on general Morphology, together with a special discussion of plants possessing poisonous properties, and therefore liable to produce injury to grazing animals.

The Morphological Laboratory is well equipped with efficient dissecting microscopes, while the Botanic Garden and Herbarium afford an ample supply of fresh and dried material.

#### ZOOLOGY.\*

#### ERNEST W. MACBRIDE, M.A., B.Sc.

This course includes a systematic study of the classification of animals, illustrated by Canadian examples, and by the collections in the Peter Redpath Museum. It affords suitable preparation for

\* Students may either take Botany or Zoology, but must intimate at the beginning of the Session their choice, and adhere to this, except by special permission of the Faculty. Students desiring to attend both subjects in one session may do so by permission of the Faculty. collecting and as an Student: Redpath M of Montre It is of or on Zoo

Inorgani course is c cine. The Chemistry illustration, The Chen to repeat en intendence

The purp quainted, sc methods, its Accordingly Physical and tion.

In addition department c ments are fro kind suscepti Laboratory

(1) During siological Ch vestigate food secretions an material for

(2) The re formance of to a large cla elaborate metl is similar to the attention will subject than to n on the s can be pose it is ll-known umber of in studyne speci-

> Wilkins, hing the examine this purh which s, which erything,

> > horough r to denaphytes nd after together operties,

> > > efficient

tion of tions in ion for

rinning of e Faculty. ion of the

## 243

collecting in any department of Canadian Zoology, or Palaeontology, and as an introduction to Comparative Physiology.

Students in Botany or Zoology will receive tickets to the Peter Redpath Museum, and to the Museum of the Natural History Society of Montreal.

It is optional with students to select either the course on Botany or on Zoology.

## CHEMISTRY.

#### GILBERT P. GIRDWOOD, M.D.

Inorganic Chemistry is fully treated; a large portion of the course is devoted to Organic Chemistry and its relations to Medicine. The branches of Physics bearing upon or connected with Chemistry also engage the attention of the Class. For experimental illustration, abundant apparatus is possessed by the College.

The Chemical Laboratory will be open to members of the Class to repeat experiments performed during the course, under the superintendence of the Professor or his Assistant.

## PHYSIOLOGY.

#### T. WESLEY MILLS, M.A., M.D., D.V.S.

The purpose of this Course is to make students thoroughly acquainted, so far as time permits, with modern Physiology, its methods, its deductions, and the basis on which the latter rest. Accordingly, a full course of lectures is given, in which both the Physical and the Chemical departments of the subject receive attention.

In addition to the use of diagrams, plates, models, etc., every department of the subject is experimentally illustrated. The experiments are free from elaborate *technique*, and many of them are of a kind susceptible of ready imitation by the student.

Laboratory work for Senior Students:-

(1) During a part of the Session there will be a course on Physiological Chemistry, in which the student will, under direction, investigate food-stuffs, digestive action, blood, and the more important secretions and excretions, including urine. All the apparatus and material for this course will be provided.

(2) The remainder of the Session will be devoted to the performance of such experiments as are unsuitable for demonstration to a large class in the lecture room and such as require the use of elaborate methods, apparatus, etc. The course for first year students is similar to that for senior students, though less advanced, and more attention will be given to the anatomico-physiological aspects of the subject than to the chemical.

### HISTOLOGY.

#### GEO. WILKINS, M.D.

This will consist of a course of ten lectures and twenty-five weekly demonstrations with the microscope. As the demonstrations will be chiefly relied upon for teaching the Microscopic Anatomy of the various structures, the specimens under observation will then be minutely described. Plates and diagrams specially prepared for these lectures will be freely made use of.

#### COMPARATIVE PATHOLOGY.

#### J. G. ADAMI, M.D., Professor.

## C. F. MARTIN, M.D., Lecturer.

The teaching in Pathology at McGill Medical College includes courses in general and special Pathology, in Bacteriology (held during the summer Session), and instruction in the performance of Autopsies. These courses—while directed especially towards giving to the Students a due knowledge of the causation and course of disease in man—are necessarily based largely upon the results of observations upon the lower animals, and the greater part of all these causes is applicable equally to conditions obtaining in the domestic animals. There is in addition a practical course of Pathological Histology for Students of Comparative Medicine, and instruction is given upon the performance of Autopsies upon the lower animals.\*

#### MEDICINE AND SURGERY.

#### D. MCEACHRAN, F.R.C.V.S.

Students of all years must attend.

The course embraces the principles and practice of Veterinary Medicine, including the diseases of domestic animals, their nature, causes, symptoms, and treatment. It necessarily includes Pathology and Pathological Anatomy, with daily clinical demonstrations in the hospital and the yard practice of the College, as well as illustrations from plates, preserved specimens, and fresh material furnished by the Pathologist.

The course on Surgery embraces Surgical Anatomy and Practices of Surgery, and will be illustrated by a large collection of surgical appliances.

\* Undergraduates in the second and third sessions are particularly recommended to take the practical course in Bacteriology during the summer session, if possible.

The la of cases in the course, i forms an

In this study, wl are carefi very large natural ir of diagra Compte's of drawing artist, Bos The diss cured, and ance to su room is fu affords stu Students tical anato: Before a examinatio that he has

## м

This cou therapeutic i inary Pract and principa tical work o macy and h of the actior enty-five strations atomy of vill then bared for

> includes gy (held nance of s giving ourse of esults of rt of all in the f Pathoand inhe lower

> > eterinary nature, athology is in the strations shed by

Practices surgical

mended to

## 245

The large and varied practice of the College furnishes abundance of cases for demonstration purposes. Attendance and practical work in the Pharmacy and Hospital is compulsory during the entire course, in the order arranged at the beginning of each Session, and forms an important part of the qualifications for graduation.

#### ANATOMY.

#### M. C. BAKER, D.V.S.

In this course the Anatomy of the horse is the subject of special study, while the structural differences of all the domestic animals are carefully explained and illustrated by fresh subjects. There is a very large collection of anatomical models by Dr. Auzoux, of Paris, natural injections and dissections, and a most complete collection of diagrams including Marshall's complete set, Mons. Achille Compte's Anatomical and Zoological series; also a large collection of drawings specially prepared for the school by Mr. Scott Leighton, artist, Boston, and Mr. Hawksett, Montreal.

The dissecting room is open at all hours, subjects are easily procured, and either the Professor or Demonstrator will be in attendance to superintend and direct students in practical dissection. The room is furnished with every convenience, is thoroughly lighted, and affords students all that can be reasonably desired.

Students are required to pay for the material necessary for practical anatomy.

Before a student can be allowed to present himself for his pass examination, he must produce tickets certified by the demonstrator that he has dissected two entire subjects,—that is, one each session.

### MATERIA MEDICA AND THERAPEUTICS.

#### NEIL GUNN, M.D., Lecturer.

This course comprises a description of the physiological and therapeutic action of all the more important medicines used in Veterinary Practice, with a short reference to their general properties and principal preparations. It will also include a course in the practical work of compounding and administering medicines in the pharmacy and hospital. There will also be experimental demonstrations of the action of some of the more important drugs on animals.

## CATTLE PATHOLOGY AND OBSTETRICS.

#### C. MCEACHRAN, D.V.S.

A special course on Cattle Diseases and Veterinary Obstetrics will be delivered, embracing the history of Cattle Plagues : their nature, symptoms, pathological anatomy, prophylactic and therapeutic treatment ; breeding and general management of breeding animals, disease incident to gestation and parturition, etc.

#### SPECIAL COURSE ON DOGS.

Professor Wesley Mills will give a special course on Dogs, which will include :---

 $(I \cdot)$  Lectures on the physical and psychic characteristics of all the leading varieties, illustrated by specimens from his own kennels and other sources as well as by plates, etc.

(2.) The principles of training; the feeding and general management of dogs.

(3.) The principles of breeding; the management of brood bitches and the rearing of puppies.

(4.) Bench show management and the public judging of dogs.

(5.) The rights and duties of dog owners.

In all the above courses the clinical and pathological aspects of the subjects will be considered, as well as the normal.

#### THE MUSEUM.

Contains a large collection of natural and artificial specimens, consisting of skeletons of almost all the domestic animals, numerous specimens of diseased bones, preparations by Dr. Auzoux of all the different organs in the body, natural dissections, colored models, diagrams, etc., etc., all of which are used, in illustrating the lectures, and to which the Students have frequent opportunities of referring. Students will also enjoy the privileges of the Museum of the Medical Faculty of McGill University, which is rich in pathological specimens.

#### THE PHARMACY.

All the medicines used in the practice of the College are compounded by the Students, under the direction of the Professors, from prescriptions for each particular case, and most of them are administered or applied by them. For this purpose they are detailed for certain pha come famili and uses of to the diffe practical we

The Hosp door practic numerous fa clinical obse numbers of herds in the and do cons in Canada. the large nu surgical treat Senior Stu in the Hospin istering medi

The followi Anatomy .--- Ch inary Ana tor's Man Physiology .-- P Mills' Ter atory Exe Histology.-Kla Botany.-Gray' Zoology .- Daw Chemistry .--- W Organic ( Medicine and . inary Me Williams' S Equine M Zuill's Tra etc.

\* Students are ad the Professor who bstetrics : their d therapreeding

3, which

s of all kennels

manage-

f brood

dogs.

pects of

cimens, imerous all the models, lectures, eferring. Medical l speci-

> e comrs, from adminiled for

## 247

certain pharmaceutical duties alternately. By this means they become familiar with the physical properties, compatabilities, doses and uses of the medicines, and become expert in administering them to the different patients brought for treatment. Attendance and practical work in the Pharmacy are compulsory.

#### THE PRACTICE.

The Hospital and Daily Clinics, as well as a very extensive outdoor practice, including most of the largest stables in the city and numerous farms in the vicinity, afford excellent opportunities for clinical observation on horses of all breeds and ages. Owing to the numbers of cattle kept in the city, and the valuable thoroughbred herds in the neighborhood, advanced Students are enabled to see and do considerable cattle practice. The dog practice is the largest in Canada. All canine diseases can be studied clinically, owing to the large number of dogs brought to the College for medical or surgical treatment.

Senior Students will be appointed to act alternately as dressers in the Hospital, and first and second year men must assist in administering medicines and at operations.

## \*TEXT BOOKS.

The following text books are recommended:-

- Anatomy.—Chauveau's Comparative Anatomy; Strangeway's Veterinary Anatomy: McFadyean's Veterinary Anatomy; Dissector's Manual, Clement.
- Physiology.—Physiology for Beginners by Foster and Shore; Prof. Mills' Text Book of Comparative Physiology; Class Laboratory Exercises by the same author.

Histology.—Klein's Elements; Schafer's Essentials of Histology. Botany.—Gray's Structural Botany; Bessey's Botany.

Zoology.-Dawson's. Chemistry.-Wurtz's Element

- Chemistry.—Wurtz's Elementary Chemistry; Armstrong; Remsen's Organic Chemistry.
- Medicine and Surgery.—Williams' Principles and Practice of Veterinary Medicine; Fleming's Sanitary Science and Police; Williams' Surgery; Fleming's Operative Surgery; Robertson's Equine Medicine; Liautard's Operative Veterinary Surgery; Zuill's Translation of Friedberger and Frôhner's Pathology, etc.

\* Students are advised not to buy text books extensively till after consultation with the Professor who teaches the subject.

Materia Medica.—Dun's Veterinary Medicines; Walley's Veterinary Conspectus; Tuson's Pharmacy; Hoare's Therapeutics.

Cattle Diseases.—Steel's Bovine Pathology; Clatter's Cattle Doctor (Armitage); Fleming's Veterinary Obstetrics.

Canine Diseases.—Prof. Mills' The Dog in Health and in Disease. Diseases of the Dog.—Geo. Müller, tr. by A. Glass, V.S.

Entozoa.—Cobbold's Entozoa of Domestic Animals.

Pathology.-Payne's Pathology; Fraenkel's Bacteriology; Clement

on Post Mortems.

#### BOARD AND TRAVELLING EXPENSES.

Board can be obtained at from \$15 to \$20 per month.

By the kindness of the Railway Companies, certified students of the College will be granted return tickets from Montreal to any part of their lines at greatly reduced rates, the said tickets to hold good from the close of one session to the beginning of the next.

Return tickets will also be granted for the Christmas vacation.

#### VETERINARY MEDICAL ASSOCIATION.

This Association is for the mutual improvement of its members in all matters pertaining to the profession.

Graduates and students of Veterinary Medicine and graduates and students of Human Medicine are eligible to membership.

The meetings are held fortnightly, at which papers are read and discussed, cases reported, etc.

The advantages which students derive from these meetings are very great. Not only do they hear carefully prepared papers on subjects of professional importance, but an opportunity is afforded for practising public speaking, which in after life is often extremely useful. The fees of the Association are expended in the purchase of books for the Library, drugs for experimental purposes and the prizes awarded for papers read.

The Library is owned by the Association, and is under the control of officers who are elected annually. It contains nearly 600 volumes, embracing works of great antiquity, as well as the modern works on Veterinary Science and collateral subjects, in both the English and French languages, all of which are available for consultation and study by members.

Every student is expected to become a member. The entrance fee is \$5, and the yearly subscription \$2.50. A Diploma of Honorary Fellowship is conferred on all members who have complied with the regulations of the Association.

## ASSOCIA

This Socie Association, is the study classes of ani Naturally, it dumb animal

The late Jol U.S.A., gener of nearly 400 many of whic

## Q

Candidates of attendance Either Botan Histology, Chemistry,

Physiology, Anatomy,

General mon

Cattle Disease: Practice of Me Materia Medica

No one will who shall not this Faculty, in Courses of less time over which

Students, exc sue the subjects Botany or Zoo

Candidates of than two subject the beginning of will not be gran on written appl of \$2, which mu Veterinary s. tle Doctor isease.

Clement

tudents of al to any is to hold next. tation.

members

graduates hip. read and

tings are papers on forded for extremely irchase of and the

the conearly 600 e modern both the for con-

entrance Honorary with the

#### 249

## ASSOCIATION FOR THE STUDY OF COMPARATIVE PSYCHOLOGY.

This Society is similar in constitution to the Veterinary Medical Association, and has a special library of about 100 volumes. Its object is the study of the Psychic Phenomena (intelligence, etc.) of all classes of animals, and the diffusion of sounder views on this subject. Naturally, it is of great importance in the practice of medicine upon dumb animals as well as of peculiar scientific interest.

### DONATIONS.

The late John Wesley Gadsden, M.R.C.V.S., of Philadelphia, Penn., U.S.A., generously donated to this Faculty his valuable library of nearly 400 volumes and the specimens of his private museum, many of which are of unusual value.

## QUALIFICATIONS FOR THE DEGREE.

Either Botany or Zoology—One course of six months, 1st year. Histology, Chemistry,

Physiology, Anatomy,

General Pathology and Demonstrations, one course of six months.

Cattle Diseases and Obstetrics,

Practice of Medicine and Surgery, Two courses, 2nd and 3rd years. Materia Medica and Therapeutics,

No one will be permitted to become a candidate for examination who shall not have attended at least one full course of lectures in this Faculty, including all the subjects embraced in the curriculum. Courses of less length than the above will be received only for the time over which they have extended.

Students, except by special permission of the Faculty, must pursue the subjects of Anatomy, Physiology, Chemistry, Histology and Botany or Zoology in their first session.

Candidates of the 1st and 2nd years, who fail to pass in not more than two subjects, may be granted a supplemental examination at the beginning of the following session. Supplemental examinations will not be granted, except by special permission of the Faculty and on written application stating reasons, and on payment of a fee of \$2, which must be paid prior to examination. Candidates who fail to pass in a subject of which two courses are required, may, at the discretion of the Faculty, be required to

attend a third course, and furnish a certificate of attendance thereon. In addition to the written and oral examinations, candidates must pass a practical clinical test, including examination of horses for soundness, written reports being required; the clinical reports to include diagnosis, prognosis, and treatment.

The following oath or affirmation will be exacted from the candidate before receiving the degree:—

## DECLARATION OF GRADUATES IN COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

I, — —, promise and solemnly declare that I will, with my best endeavors, be careful to maintain the interests of this University, and that, to the best of my ability, I will promote its honor and dignity.

#### EXAMINATIONS.

First Year.—Pass Examinations in Botany or Zoology, Histology (oral), 1st Chemistry, Anatomy, Physiology, and on all other subjects in the course of this year.

Second Year.—Pass examinations in Chemistry, Physiology, Histology (written) and Anatomy, in addition to sessional examinations in these and the other subjects of the year.

Third Year.—Pass Examinations in Practice of Medicine and Surgery, General and Special Pathology, Veterinary Obstetrics, Diseases of Cattle, and Materia Medica and Therapeutics.

N.B., Written and Oral Examinations will be held from time to time during the session, and attendance at these is compulsory. The standing attained at these examinations will be taken into account at pass examinations.

#### AGE FOR GRADUATION.

Students under seventeen will be received as apprentices, but cannot be entered as regular Students before attaining that age.

Minors may pass the Examinations, but cannot receive the Diploma until they are twenty-one years of age.

## REGULATIONS GOVERNING THE CONFERRING OF THE DEGREE UPON FORMER GRADUATES OF THE MONT-REAL VETERINARY COLLEGE.

The Degree of Doctor of Veterinary Science may be conferred on former graduates of Montreal Veterinary College at any Convocation of Mc to the following Corporation of governing the c 1st.—That the throughout his 2nd.—That he sale of proprieta 3rd.—That he year since grad study at some 1 4th.—That he

made reasonable In estimating be taken special research, publica profession.

The fee for the An affirmation Faculties, and in The Degree m The regulation ordinary undergr Graduates intenotify the Regist at the same time their claims for

The Matriculati by no means a s you should begin

You had better become familiar under the guidane likely to mislead

It is advisable opening day, in c all means to be p you cannot miss paratory informatic sary text books a wo courses required to ce thereon. candidates of horses cal reports

n the can-

E AND

, with my is Univerits honor

Histology other sub-

hysiology, examina-

icine and Obstetrics,

n time to sory. The o account

ices, but t age. ceive the OF THE MONT-

conferred iny Con251

vocation of McGill University held for conferring degrees, subject to the following regulations, which were adopted at a meeting of the Corporation of McGill University, held on the 22nd January, 1890, governing the conferring of Degrees on former graduates :

Ist.—That the candidate must be found to have conducted himself throughout his professional career with honor and integrity.

2nd.—That he has not been connected with the manufacture or sale of proprietary medicines.

3rd.—That he has been engaged in actual practice for at least one year since graduating, or that he has been engaged in professional study at some European school.

4th.—That he shall be required to satisfy the Board that he has made reasonable progress in professional knowledge and skill.

In estimating the fitness of a candidate for a degree, account will be taken specially of work done in professional teaching, original research, publication of books or contributions to the journals of the profession.

The fee for the Diploma shall be Twenty Dollars.

An affirmation shall be administered similar to that of other Faculties, and in English.

The Degree may be conferred on absentees.

The regulations relating to fees and affirmations shall apply to ordinary undergraduates on taking the degree.

Graduates intending to apply for the Degree of D.V.S. should notify the Registrar of the Faculty at their earliest convenience, and at the same time state the grounds explicitly on which they base their claims for the Degree.

## HINTS TO STUDENTS.

The Matriculation Examination which you have to undergo is by no means a severe one, and if you are not prepared to pass it you should begin at once to improve your education.

You had better not commence professional reading till you have become familiar with the fundamental subjects. Practice, unless under the guidance of a thoroughly educated practitioner, is more likely to mislead than aid you.

It is advisable that you should arrive in Montreal before the opening day, in order to procure suitable lodgings. Endeavor by all means to be present at the introductory lectures on all subjects; you cannot miss one lecture without thereby losing valuable preparatory information. Come prepared to procure at once the necessary text books and note books. Make your arrangements so as to enable you to devote your entire time and undivided attention to your studies, as the three sessions which the curriculum covers will be found none too long to accomplish the necessary proficiency in the various branches of study required of you. The McGill Y. M. C. A. is especially recommended to you.

#### NOTICE TO GRADUATES.

For the purpose of increasing pathological material for the classes, graduates are earnestly requested to send any interesting or obscure pathological specimens which may be met with in their practice, to the Pathological Laboratory, McGill Medical College. The specimens may be sent C.O.D. by express, and will in all cases be acknowledged. It is suggested that where reports are desired those reports can be satisfactory only when the material arrives in the freshest possible condition. It is urged, therefore, that when forwarded in bottles the tissues be placed immediately either in alcohol, fifty to seventy-five per cent., or in a mixture of equal parts of glycerine and water to which five per cent. of pure carbolic acid has been added. If dry carriage be preferred the method of surrounding the tissues with a cloth well moistened with one in one thousand corrosive sublimate solution, and wrapping this securely in oiled silk, is recommended. A report upon the nature of the specimen will be sent if desired, and the specimens, when of sufficient interest, will be preserved in the Museum with the names of the donors affixed.

#### STUDENTS' MEETINGS.

The use of the lecture room or other rooms of the College, for holding students' meetings, can be obtained by application to the Dean, stating the object of the meeting, and he may attend personally or appoint someone to represent the Faculty at said meeting. It is strictly forbidden to hold meetings for the discussion of any subject not approved by the Faculty, and students holding such meetings except as above will be dealt with by the Faculty as it may see fit.

## Me(

The McGill N lished chiefly fo testant populati Province of Qu studies in this French is also t

The Corporat Superintendent McGill Normal : Committee of t authorized to ap members, called have the genera School. The fc University const the Session of I

## NO

PROF. W. PETER Chairman. MR. SAMUEL FINI REV. PRINCIPAL M J. R. DOUGALL, M REV. E. I. REXFO J. W. BRAK i attention to n covers will proficiency in The McGill

r the classes, g or obscure r practice, to

The specicases be aclesired those rives in the it when forr in alcohol, ual parts of olic acid has surrounding ne thousand ely in oiled he specimen ient interest, the donors

> College, for ition to the end personid meeting. sion of any olding such ty as it may

## MeGill Noewal Lebool.

The McGill Normal School, in the city of Montreal, is established chiefly for the purpose of training teachers for the Protestant population, and for all religious denominations of the Province of Quebec, other than the Roman Catholic. The studies in this school are carried on chiefly in English, but French is also taught.

## GOVERNMENT OF THE SCHOOL.

The Corporation of McGill University is associated with the Superintendent of Public Instruction in the direction of the McGill Normal School, under the regulations of the Protestant Committee of the Council of Public Instruction, and it is authorized to appoint a standing committee consisting of five members, called the "Normal School Committee," which shall have the general supervision of the affairs of the Normal School. The following members of the Corporation of the University constitute the committee of the Normal School for the Session of 1898-99:

## NORMAL SCHOOL COMMITTEE.

PROF. W. PETERSON, M.A., LL.D., Principal of the University Chairman.

MR. SAMUEL FINLEY, GOVERNOR OF McGill College. REV. PRINCIPAL MACVICAR, D.D., LL.D., J. R. DOUGALL, M.A., REV. E. I. REXFORD, B.A., Fellows of McGill University.

J. W. BRAKENRIDGE, B.C.L., Secretary.

### OFFICERS OF INSTRUCTION.

#### MCGILL NORMAL SCHOOL.

SAMPSON PAUL ROBINS, M.A., LL.D., Principal and Ordinary Professor of Mathematics, and Lecturer on Art of Teaching.

ABNER W. KNEELAND, M.A., B.C.L., Ordinary Professor of English Language and Literature.

MADAME SOPHIE CORNU, Professor of French.

MISS GREEN, Professor of Drawing.

MR. R. J. FOWLER, Instructor in Music.

MISS LILIAN B. ROBINS, B.A., Assistant to the Principal, and Instructor in Classics.

MR. W. H. SMITH, Instructor in Tonic Sol-Fa.

MR. JNO. P. STEPHEN, Instructor in Elocution.

PROF. D. P. PENHALLOW, M.A.Sc., Lecturer on Botany.

T. D. REED, M.D., C.M., Lecturer on Physiology and Hygiene.

NEVIL N. EVANS, M.A.Sc., Lecturer on Chemistry.

MR. JAMES WALKER, Instructor in Penmanship and Book-keeping. MISS LOUISE DERICK, Instructor in Kindergarten Methods.

MISS LOUISE DERICK, Instructor in Kindergarten Methods. MR. A. W. ARTHY, Lecturer in the Theory of Kindergarten and Transition Work.

## MODEL SCHOOLS OF THE McGILL NORMAL SCHOOL

\* ORRIN REXFORD, B.A.Sc., Head Master of Boys' School. MISS MARY I. PEEBLES, Head Mistress of Girls' School. MISS SELINA F. SLOAN, Head Mistress of Primary School.

## ANNOUNCEMENT FOR THE SESSION 1898-99.

This Institution is intended to give a thorough training to teachers, by instruction and training in the Normal School itself and by practice in the Model Schools; and the arrangements are of such a character as to afford the greatest possible facilities to students from all parts of the province. Hereafter the Protestant Central Board of Examiners for the Province of Quebec will grant diplomas only to teachers-in-training of this Institution and to graduates of British or Canadian Universities. The forty-thi the first of Sep May, 1899.\* 1

1.—Elemientar Diplon 2.—Advanced Elemen 3.—Model Sci Diplon 4.—Kindergar Diplon 5.—Class in Diplon All the follow and female stud

I. MODE OI

The Central ] admit to the sev School.

Elementary Cla certificate of goo congregation to at the time of hi teenth year of h entrance into th School.

Each candidat notify the Secreta Parmelee, Esq., Quebec, in accor of April next pr

\* In the Element 1899, and closes At

## 254

dinary Pro-. of English

d Instructor

iene. reping. and Tran-

AL

## 98-99.

aining to al School arranget possible Hereafter Province aining of dian Uni255

The forty-third Session of this School will commence on the first of September, 1898, and close on the thirty-first of May, 1899.\* The students are graded as follows :

- 1.—Elementary Class.—Studying for the Elementary Diploma.
- 2.—Advanced Elementary Class.—Studying for the Advanced Elementary Diploma.
- 3.—Model School Class.—Studying for the Model School Diploma.
- 4.—Kindergarten Class.—Studying for the Kindergarten Diploma.
- 5.—Class in Pedagogy.—Preparing for the Academy Diploma.

All the following regulations and privileges apply to male and female students alike.

## I. MODE OF ADMISSION TO THE NORMAL SCHOOL.

The Central Board of Examiners alone have the right to admit to the several courses of study in the McGill Normal School.

Elementary Classes.—Any British subject who produces a certificate of good moral character from the minister of the congregation to which he belongs, and evidence to show that at the time of his application he has entered upon the seven-teenth year of his age, may be admitted to examination for entrance into the elementary class of the McGill Normal School.

Each candidate for admission to the elementary class shall notify the Secretary of the Central Board of Examiners, G. W. Parmelee, Esq., B.A., Department of Public Instruction, Quebec, in accordance with form No. 3, on or before the 15th of April next preceding the examination, of his intention to

\* In the Elementary Class only, the session opens on January 4th, 1899, and closes April 28th, 1899.

present himself for examination.\* Each candidate shall at the same time deposit with the Secretary of the Central Board, first a certificate of good moral character, according to the authorized form No. 1, signed by the minister of the congregation to which he belongs, and by at least two school commissioners or trustees or school visitors of the locality in which he has resided for six months during the preceding two years; second, an extract from a register of baptism or other sufficient proof, showing that he is of the requisite age.

Each candidate shall at the same time pay to the Secretary of the Central Board of Examiners the sum of two dollars. This fee shall be used in paying the expenses of the Central Board of Examiners. The fee shall not be returned to a candidate who has failed to enter the Normal School, but at the next examination such candidate may again present himself without extra payment.

On receiving the candidate's notification, certificates of moral character, satisfactory evidence of age and examination fee, the Secretary of the Central Board shall notify the candidate of the place and time of the examination, and shall also notify the deputy examiner or examiners at the centre of examination chosen, to admit the candidates to the examinations of the second grade academy, or to such of the examinations as may be indicated by the Central Board of Examiners.

The answers of all such candidates shall be written on paper of a special tint, shall be promptly read and valued with other answers to the same questions; then collected and sent with another copy of the questions submitted and a statement of the results to the Secretary, who shall submit the whole to the Central Board or to a sub committee of that Board. In view of the results and the answers submitted the Central Board of Examiners or i to enter the Ne the nine month refuse admissio candidate is au he may, if he c the nine month

Holders of e tion for entrand Model School certificate of g congregation to at the time of 1 teenth year of entrance into t School.

Each candida at the same tin admission to th deposit a certifi evidence of age lars, which sum payment to the Examinations

be either the advanced eleme the universities. moral character age, the Secreta didate of the pla notify the Princ the University candidate to exa of the A.A. exa their Secretary.

\* See note on

<sup>\*</sup>As it has not been possible to publish earlier notice of the time for application to be admitted to the McGill Normal School, the Central Board of Examiners order that, for this year only, an examination for admission on trial shall be held in the McGill Normal School beginning Sept. 1st. 1898, and that candidates may send form No. 3 to the Secretary of the Board of Examiners on or before August 15th, 1898.

e shall at ral Board, ing to the re congrehool comy in which two years; other sufge.

Secretary wo dollars. he Central i to a canbut at the int himself

ificates of camination the candishall also centre of e examinae examina-Examiners. en on paper with other l sent with atement of hole to the l. In view al Board of

of the time School, the y, an exam-Gill Normal y send form efore August Examiners or its sub-committee shall authorize the candidate to enter the Normal School for the four months' course or for the nine months' course in the elementary school class or shall refuse admission, as each case may warrant. But when a candidate is authorized to enter for the four months' course he may, if he choose, enter at the beginning of the session for the nine months' course.

Holders of elementary diplomas are exempt from examination for entrance to the elementary classes.

Model School Class.—Any British subject who produces a certificate of good moral character from the minister of the congregation to which he belongs, and evidence to show that at the time of his application he has entered upon the eighteenth year of his age, may be admitted to examination for entrance into the model school class of the McGill Normal School.

Each candidate for admission to the model school class shall at the same time\* and in the same manner as candidates for admission to the Elementary school class give notification and deposit a certificate of good moral character and satisfactory evidence of age together with an examination fee of four dollars, which sum shall admit, in case of failure, without further payment to the examination of the year next ensuing.

Examinations for admission to the model school class shall be either the examinations in the Normal School for the advanced elementary diploma, or the A.A. examinations of the universities. On receipt of the notification, certificate of moral character, examination fee and satisfactory evidence of age, the Secretary of the Central Board shall notify the candidate of the place and time of the examination, and shall also notify the Principal of the Normal School or the Secretary of the University examiners, as the case may be, to admit the candidate to examination. If the examination chosen be that of the A.A. examiners, he shall remit the examination fee to their Secretary.

R

\* See note on preceding page.

257

Persons who already hold elementary school diplomas are exempt from the examination fee and will be liable to examination only in algebra, geometry, Latin and French, with such additional subjects as in the judgment of the Central Board or its sub-committee may be deered necessary in particular

258

additional subjects as in the judgment of the Central Board or its sub-committee may be deemed necessary in particular instances. But satisfactory evidence of having taught successfully for eight, months shall give exemption from such examinations.

No evidence of standing at the A.A. examinations other than the certificates of the universities shall be taken. For admission to the model school class of the Normal School such certificate must show that the candidate has passed in Latin, French, arithmetic, algebra, geometry and the English Language, or English Literature. A candidate, who has failed to enter the model school class, may be admitted to the elementary school class.

Kindergarten Class.—Admission to the class for kindergartners shall be granted by the Central Board of Examiners or its sub-committee only to such persons as, holding advanced elementary school diplomas, notify the Secretary of the Cenal Board on or before the fifteenth day of April\* in any year of their wish to enter this class, and are reported by the Principal of the Normal School to possess the necessary special fitness for kindergarten work.

All Classes.—Authorization to enter any class of the McGill Normal School holds good for two years from the date of the issue, but no longer, and is forfeited by failure to pass the semi-sessional examinations to the satisfaction of the Principal of the Normal School.

The Central Board of School Examiners may admit on trial to any class, in exceptional cases, persons whose qualifications may be insufficient for entrance. Such persons may be excluded from the school by the Principal whenever he may judge it best so to do; but none shall be permitted to enter or to remain on trial after the semi-sessional examinations.

No candidate is admitted to the Normal School until the

\*See note on preceding page.

provisions of 1 fulfilled. All 1 the Secretary

II. CONDITION

Attendance. attend on the attend punctua satisfactory to or tardiness.

Fees.—Each the school resid monthly in adva Principal of the fifth day of the amount be not the from the school within the next f month, the delin withdrawn, and the school.

Conduct.—In teachers-in-traini able to their pro-

Each professor ing from his lec his st dies, or gi until the matter

The Principal attendance any p for a week, or wil to the Normal S that body.

The Normal So cause, to expel a lomas are examinawith such Board or particular ught sucrom such

ons other en. For al School passed in e English who has ted to the

indergartminers or advanced of the Cenn any year the Priniry special

the McGill date of the pass the e Principal

nit on trial alifications nay be exer he may to enter or tations. l until the 259

provisions of the School laws respecting admission have been fulfilled. All necessary forms of application may be had from the Secretary of the Central Board.

## II. CONDITIONS OF CONTINUANCE IN THE NORMAL SCHOOL.

Attendance.—Persons admitted to the Normal School must attend on the first day of the opening, and must thereafter attend punctually every day of the session, or give reasons satisfactory to the Principal of the School for their absence or tardiness.

Fees.—Each teacher-in-training who during attendance at the school resides at home with parents or guardians shall pay monthly in advance the sum of four dollars school fee. The Principal of the school is permitted to wait until the end of the fifth day of the month for payment, but no longer ; 'if the amount be not then paid the teacher-in training must withdraw from the school until the amount is paid, but if it be not paid within the next five days, that is, before the eleventh day of the month, the delinquent teacher-in-training shall be held to have withdrawn, and his name shall be removed from the books of the school.

*Conduct.*—In order to continuance in the Normal School teachers-in-training must maintain conduct and character suitable to their present position and their future calling.

Each professor, lecturer or teacher has the power of excluding from his lectures any student who may be inattentive to his studies, or guilty of any minor infraction of the regulations, until the matter can be reported to the Principal.

The Principal of the school has power to suspend from attendance any pupil, for improper conduct or neglect of duty, for a week, or when he deems it advisable to submit the case to the Normal School Committee, until the next meeting of that body.

The Normal School Committee is empowered, for any grave cause, to expel any teacher-in-training from any class.

Teachers-in-training must give their whole time and attention to the work of the school, and are not permitted to engage in any other course of study or business during the session of the school.

*Examinations.*—All teachers-in-training, in order to continue in the Normal School, must pass the Christmas semi-sessional examinations to the satisfaction of the Principal.

Retirement.—Teachers-in-training who leave the Normal School in the middle of a session are expected to assign to the Principal satisfactory reasons, accompanied, in case of failure of health, by a medical certificate. Neglect to comply with this regulation will be a bar to future admission to the Normal School.

#### III. ATTENDANCE ON RELIGIOUS INSTRUCTION.

Teachers-in-training will be required to state with what religious denomination they are connected; and a list of the students connected with each denomination shall be furnished to one of the ministers of such denomination resident in Montreal, with the request that he will meet weekly with that portion of the teachers-in-training, or otherwise provide for their religious instruction. Every Thursday after four o'clock will be assigned for this purpose.

In addition to punctual attendance at weekly religious instruction, each student will be required to attend public worship at his own church, at least once every Sunday.

#### IV. BOARDING HOUSES.

No boarding house is attached to the institution, but every care will be taken to ensure the comfort and good conduct of the students in private boarding houses approved by the Principal, who will furnish lists to applicants for admission. Board can be obtained at from \$12 to \$16 per month.

I. The teachers-in-training shall state the places of their residence, and those who cannot reside with their parents will

be permitted shall be speci permission to mitted to rece vice versa.

2. They are after half-past 3. They will meetings only

to their moral 4. A copy of of lodging hou 5. In case of a written stater to the Principa

6. All intend beforehand to 7. Boarding

of professors. 8. Special vir reported, either school; and, if

9. Students a port, as soon a infractions of r

#### V. PR

Diplomas.—A sional examinat of the total mar in any one of tl French and Mi required by the grade which the mistake in spelli

## 260

and attenl to engage session of

to continue ni-sessional

e Normal assign to in case of to comply sion to the

DN.

n what reliof the stuurnished to n Montreal, : portion of eir religious :k will be

eligious inpublic wor-

e students in o will furnish ned at from

ces of their parents will 261

be permitted to live in boarding houses, but in such only as shall be specially approved of. No boarding houses having permission to board male teachers-in-training, will be permitted to receive female teachers-in-training as boarders, and vice versa.

2. They are on no account to be absent from their lodgings after half-past nine o'clock in the evening.

3. They will be allowed to attend such lectures and public meetings only as may be considered by the Principal conducive to their moral and mental improvement.

4. A copy of the regulations shall be sent to all the keepers of lodging houses at the beginning of the session.

5. In case of lodgings being chosen by parents or guardians a written statement of the parent or guardian shall be presented to the Principal.

6. All intended changes of lodgings shall be made known beforehand to the Principal or to one of the Professors.

7. Boarding houses shall be visited monthly by a committe of professors.

8. Special visitations shall be made in case of sickness being reported, either by professors or by ladies connected with the school; and, if necessary, medical attendance shall be procured.

9. Students and lodging house keepers are required to report, as soon as possible, all cases of serious illness and all infractions of rules touching boarding houses.

#### V. PRIVILEGES OF TEACHERS-IN-TRAINING.

Diplomas.—All teachers-in-training who pass the semi-sessional examinations in the Normal School with 60 per cent. of the total marks and who have not fallen below 50 per cent. in any one of the groups of subjects, English, Mathematics, French and Miscellaneous, nor in any one of the subjects required by the authorized course of study for schools of the grade which they aspire to teach, or make more than one mistake in spelling in one hundred words of dictation chosen from any authorized text book, shall be entitled to continue in their classes after Christmas. Except by the special permission of the Principal, none others shall be entitled to this privilege.

All teachers-in-training who attain the standards defined above at the final examinations in the Normal School shall be entitled to diplomas of the grade of the class to which they belong; and except with the concurrence of two-thirds of the members of the Central Board of Examiners who may be present at the discussion none others shall receive diplomas. But the Central Board of Examiners may grant an elementary diploma to a teacher-in-training who fails to pass the examinations in the Model School Class, or those for the advanced elementary diploma.

Bursaries.-Each holder of an advanced elementary diploma or of a model school or kindergarten diploma, on showing that he has taught successfully in some school of this province under the control of school commissioners or school trustees other than the Protestant Board of School Commissioners of Montreal, shall be paid by the Principal of the Normal School, out of its funds, the sum of two dollars for each month of successful teaching, not exceeding eight months in each year, during each of the two scholastic years immediately succeeding the award of his diploma. If in two years of consecutive attendance at the Normal School a teacher-in-training has taken an advanced elementary diploma and either a model school diploma or a kindergarten diploma the amount to be paid shall be four dollars for each month; if three sessions of the Normal School elapse between the admission of the teacher-in-training and the conferring of the second diploma the amount to be paid shall be three dollars for each month.

Successful teaching shall be shown by submitting at the annual meeting of the Central Board of Examiners a certificate of the form 5 signed by the chairman or by the secretarytreasurer of each board under which the teacher has taught and by each school inspector in whose district of inspection he has taugl stating that I cumbency of *Travelling* 

mentary diple diploma, each shall be paid funds, the sur the Province the City of M

Prizes.—Th annually chos training of th for a diploma final examinat

The Prince teacher-in-trai diploma, and examinations

The Superi a gold medal class, who pas final examinat to the student in French.

The G. W. 1 ally at the ple Secretary of the teacher-in-train diploma, takes final examinati

His Excellen to the student Art of Teachin model school c *Exemption fre*  pecial pertled to this

is defined ool shall be which they irds of the nay be preomas. But elementary is examinae advanced

ry diploma owing that vince under stees other 's of Mont-School, out of successear, during :eeding the itive attenas taken an del school e paid shall he Normal -in-training ount to be

ting at the rs a certifie secretaryhas taught inspection he has taught. But the signature of any school inspector stating that he was unable to visit the school during the incumbency of that teacher shall be accepted.

Travelling Expenses.—On being awarded an advanced elementary diploma, a model school diploma, or a kindergarten diploma, each teacher-in-training at the McGill Normal School shall be paid by 'he Principal of the Normal School, out of its funds, the sum of three cents for each mile that his home, in the Province of Quebec, is more than fifty miles distant from the City of Montreal.

*Prizes.*—The J. C. Wilson prize of forty dollars and a book, annually chosen by the donor, shall be given to that teacher-intraining of the advanced elementary school class who passes for a diploma, and takes the highest aggregate of marks at the final examinations of the year.

The Prince of Wales' medal and prize shall be given to that teacher-in-training of the model school class who passes for a diploma, and takes the highest aggregate of marks at the final examinations of the year.

The Superintendent of Public Instruction gives annually a gold medal to the teacher-in-training of the model school class, who passes for a diploma, and stands second at the final examinations of the year. He also gives a prize in books to the student in the model school year, who stands highest in French.

The G. W. Parmelee prize of valuable books is given annually at the pleasure of the donor by G. W. Farmelee, Esq., Secretary of the Department of Public Instruction, to the teacher-in-training who, passing for an advanced elementary diploma, takes the second highest aggregate of marks at the final examinations of the year.

His Excellency the Governor-General gives a bronze medal to the student who passes the best final examination in the Art of Teaching, whether in the elementary classes or the model school class.

Exemption from matriculation examinations in McGill Univer-

sity.—Holders of model school diplomas of the McGill Normal School who are certified by the Principal of the Normal School to have taken 75 per cent. of the total marks at their final examinations, with not less than 60 per cent. of the marks in Mathematics, French, Latin and Greek, respectively, will be admitted without further examination to the first year in Arts of the McGill University; but all such students must make good their standing at the Christmas examinations.

Academy diplomas without further professional courses or examinations.—All holders of model school diplomas that have been granted by the McGill Normal School or that shall hereafter be granted by the Central Board of Examiners shall be entitled to receive academy diplomas on graduating in Arts at some Canadian or other British university, provided that they pass in Mathematics, Latin, Greek and French at the degree examinations, or, failing this in any subject or subjects, pass examinations in such subject or subjects that are certified by the universities to have given to the graduate concerned a standing not lower than that of second class at the close of the second year in arts.

#### VI. ACADEMY DIPLOMAS TO GRADUATES.

To meet the requirements of graduates and undergraduates in Arts, who, not having previously taken a Normal School course, desire to receive Academy diplomas, and until the Universities themselves undertake the work, provision has been made for the delivery of a course of lectures on pedagogy in the Normal School and for practice in teaching in the McGill Model School for fifty half days, open to graduates in arts of any British or Canadian University, to undergraduates of the third year, and with the permission of the Faculty and the concurrence of the Principal of the Normal School, to those of the fourth year. An examination on this course of lectures is held annually on the 20th day of May, or on the school day next succeeding that date ; the hours are from 10 a.m. to 12 noon. Undergra referred to Model Scho of their col in the Moo the Princip Each per School sha said school while in at with all neo acter, as we of Examine diploma.

N.B.—The instruction in

I. ELEM

Teachers-in-tra cation on th who tak

Organization Teaching. including Fr Model Less be reported of Practice tea Model School staff. These Model Less ers, under the The final e will consist o and the recep in-training an Schools. Fill Normal mal School ir final exe marks in ely, will be ear in Arts must make

courses or as that have shall hereers shall be ing in Arts ovided that ach at the or subjects, are certified oncerned a close of the

ergraduates mal School d until the on has been edagogy in the McGill ates in arts raduates of ilty and the , to those of of lectures school day ) a.m. to 12 265

Undergraduates will be permitted to teach the fifty half days referred to above, at times extending over the sessions of the Model School, corresponding to the third and fourth years of their college course. Graduates will be permitted to teach in the Model Schools at such times as may be agreed on with the Principal.

Each person taking this course of study in the Normal School shall be held to be subject to the regulations of the said school and to be under the supervision of its Principal while in attendance thereat, and is required to furnish him with all necessary certificates of standing and of good character, as well as to pay to the Secretary of the Central Board of Examiners the fee of \$4.00 before receiving an academy diploma.

## VII. COURSE OF STUDY.

N.B.—The subjoined Course of Study has been designed, and all instruction in it is given with express reference to the work of teaching.

## I. ELEMENTARY CLASS, STUDYING FOR THE ELE-MENTARY DIPLOMA.

Teachers-in-training are admitted to this class after the Chrisimas vacation on the authority of the Central Board of School Examiners, who take full responsibility for the academic qualifications of those who enter.

Organization and Discipline.- A Course of Lectures.

Teaching.—Courses of Lectures on teaching Elementary Subjects, including French.

Model Lessons.—Given by teachers of the Model School staff to be reported on in detail by teachers-in-training.

Practice teaching in the Model Schools.—Under supervision of the Model School staff and of certain members of the Normal School staff. These lectures are definitely reported by the supervisors.

Model Lessons.—Given by teachers-in-training to their fellow teachers, under the supervision of the Normal School staff.

The final examination leading to the Elementary School Diploma will consist of written and oral examinations on the lecture courses, and the reception of reports on actual school work done by teachersin-training and observed by the staff of the Normal and Model-Schools. Examination papers will be set only on the lectures given and on school work observed; but the staff of the Normal School will refuse to sign certificates necessary to receiving diplomas, if these examinations reveal marked literary deficiencies.

Attendance on some of the lectures given to the Advanced Class will be permitted, especially on those in elocution, chemistry, physiology and hygiene, and tonic sol-fa; but examinations in such subjects will not be compulsory.

#### 2. ADVANCED ELEMENTARY CLASS STUDYING FOR THE ADVANCED ELEMENTARY DIPLOMA.

FIRST TERM, from September 2nd to December 23rd.

English.—The structure of sentences. Orthography and orthoëpy. The study of Milton's L'Allegro.

Geography.—General view of continents and oceans. Eléments de Géographie Moderne.

History.—Outline of ancient history. Histoire du Canada en Français.

Arithmetic.-Simple and compound rules.

Algebra.-The elementary rules.

Geometry.-Elementary notions, with Mensuration.

French—Darey's Principes de Grammaire Française to page 50, with verbs of first conjugation. Méthode Naturelle. Curtis' Oral Lessons in French.

Latin.-Grammar; a Delectus of Cæsar.

Reading and Elocution.—General principles, practice and criticism. Drawing.—Elements, simple outlines and map drawing.

Music.—Vocal music with part songs. Junior Certificate of Tonic Sol-Fa College.

Penmanship and Accounts.

SECOND TERM, January 6th to end of Session.

English.—Structure of words and sentences. Etymology, derivation and syntax. Study of Macaulay's Essay on Milton and of Goldsmith's Deserted Village.

Geography.-Typical lessons.

History.-Outline of ancient history. Sacred history. Histoire du Canada, continuée.

Arithmetic -- Fractions, Decimals, Proportion, Interest.

Book-keeping .- Single Entry and Penmanship.

Algebra.—Simple equations of one unknown quantity, with problems. Geometry.—First book of Euclid, with deductions. Art of Tea instruction. French.—Pr regular and i Latin.—Gra Chemistry.— Physiology ( Reading and subject. Drawing.—]

spective. Music.—Ele

tificate of To Practice in t Principal.

Religious In In addition Advanced Ele of recent date

3. MOD

Students enteri tory examine class will

English.—Pr of the English Reading Unio Geography.— History.—En Art of Teach on those deriv child.

Arithmetic. numbers.

Book-keeping. Algebra:-Eq

dratics. Geometry.—S tion to mensu

Botany.-Hig

n and on vill refuse examina-

ced Class ry, physisuch sub-

**J** FOR

ď.

u.

orthoëpy.

ments de

nada en

page 50, tis' Oral

iticism.

of Tonic

of Gold-

stoire du

problems.

267

Art of Teaching.-Lectures on school organization, discipline and instruction.

French.—Principes de Grammaire Française, page 100, with verbs regular and irregular. Méthode naturelle.

Latin .- Grammar; Cæsar Gallic War, Book I.

Chemistry.-Lectures.

Physiology and Hygiene.-Lectures.

Reading and Elocution.-As before, with lectures on teaching the subject.

Drawing.—Freehand drawing from the solid, and elements of perspective.

Music.—Elements of vocal music and part songs. Elementary Certificate of Tonic Sol-Fa College.

Practice in teaching in the McGill Model Schools, as directed by the Principal.

Religious Instruction will be given throughout the session.

In addition to the text-books named above, each Student of the Advanced Elementary School Class must be provided with an Atlas of recent date, an Arithmetic, an Algebra and a Euclid.

#### 3. MODEL SCHOOL CLASS, STUDYING FOR THE MODEL SCHOOL DIPLOMA.

Students entering the school in this second year must have passed satisfactory examination in the subjects of the elementary school class. The class will pursue its studies throug out the session, without division into terms.

English.—Principles of grammar and composition. Style. History of the English Language. Study of the course of the National Home Reading Union.

Geography.-Mathematical and physical. Use of the globes. History.-England, Rome.

Art of Teaching.—Lectures on the principles of education, especially on those derived from the physical, mental and moral nature of the child.

Arithmetic.-Commercial arithmetic. Logarithms. Properties of numbers.

Book-keeping .- Double entry and penmanship.

Algebra:-Equations of more than one unknown quantity, and quadratics.

Geometry.-Second, third and fourth books of Euclid, with application to mensuration.

Botany .- High School Botany, Spotton.

Latin.—Grammar; Cæsar Bell. Gall., Book II; and Virgil, Aeneid, Book I.

French.—Translation from French into English, and from English into French. Darey's Principes de Grammaire. Eléments de littérature française, Lectures françaises, Méthode Berlitz, Histoire de France, Lavisse.

Agricultural Science.—Principles, especially chemical and botanical, and application to Canadian agriculture.

Elocution .- Special attention to methods of teaching.

Drawing.-Elements of perspective, drawing from the cast and map drawing.

Music.—Instrumental music, part songs and rudiments of harmony. Intermediate Certificate of Tonic Sol-Fa College.

Practice in Teaching.—In the McGill Model Schools, as directed by the Principal.

Religious Instruction throughout the session.

Students of exceptional ability may, with the consent of the Principal and the professors of the several subjects, choose one of the following courses of extra study:—

(a) Greek; Xenophon, Anabasis-book I, with special attention to Greek and Latin grammar.

(b) Mathematics: trigonometry.

(c) Old English.

(d) French: classiques français, composition et grammaire.

(e) Drawing: water-color.

(f) Music: violin.

In addition to the text-books named above, each Student of the Model School Class must be provided with an Arithmetic, an Algebra, a Euclid, and Dawson's Scientific Agriculture.

#### 4. CLASS OF KINDERGARTNERS.

Persons who have taken the advanced elementary school diploma, and have the necessary qualifications, especially love of children, a good voice, musical ability and an engaging manner, may enter the training school for kindergartners, and receive kindergarten diplomas at the close of the second ycar of Normal School training.

Kindergartners will be employed in the practical work of the kindergarten during the forenoon of each school day, and will follow a selected course of practical and professional training every afternoon.

Among the subjects taken in the afternoons will be mother play, gifts, occupations, clay modelling, nature lessons, games and songs, drawing, music, French, psychology of the child, history of education and art of teaching. Special att hoped, those for the diffict ments of ore kindergarten, the kinderga

MODEL

Boys' S

Girls' S

Primar

Kinder

These Scl plied with tl the most me from the a: English edu \$1.00 to \$1. 75c.; payabl ril. Aeneid,

m English de littéralistoire de

botanical,

t and map

harmony.

lirected by

the Prinone of the

tention to

ire.

ent of the 1 Algebra,

diploma, hildren, a enter the diplomas

f the kinl follow a afternoon. ther play, nd songs, of educa269

Special attention will be paid to transition work, so that, it is hoped, those who take the training of this class will be specially fitted for the difficult task of training young children effectually in the rudiments of ordinary school work in succession to the work of the kindergarten, bridging over the chasm that too frequently separates the kindergarten from the primary class.

# MODEL SCHOOLS OF THE McGILL NORMAL SCHOOL.

Boys' School.—Orrin Rexford, B.A.Sc., Head Master. Elizabeth Reid, Florence Tucker, Assistants.

Girls' School.—Mary I. Peebles, *Head Mistress*. Ethel Stuart, Gertrude Blackett. Assistants.

Gertrude W. Brandt,

Primary School.—Selina F. Sloan, Head Mistress. Annie L. Woodington, Clara L. Douglas, Kindergarten.—Louise Derick.

These Schools can accommodate about 400 pupils, are supplied with the best furniture and apparatus, and conducted on the most modern methods of teaching. They receive pupils from the age of four and upwards, and give a thorough English education. Fees:—Boys' and Girls' Model Schools, \$1.00 to \$1.50 per month; Primary School and Kindergarten, 75c.; payable monthly in advance.

## Aniversity School Examinations,

1899.

### FOR CERTIFICATES OF THE UNIVERSITIES AND THE TITLE OF ASSOCIATE IN ARTS.

HELD UNDER THE SUPERINTENDENCE OF MCGILL UNIVERSITY, MONTREAL, AND THE UNIVERSITY OF BISHOP'S COLLEGE, LENNOXVILLE; AND RECOG-NIZED BY THE PROTESTANT COMMITTEE OF THE COUNCIL OF PUBLIC INSTRUCTION.

These Examinations are held in Montreal and at Lennoxville; and local centres may be appointed elsewhere on application to the Principal of either University, accompanied with the names of satisfactory Deputy Examiners, and guarantee for the payment of necessary expenses.

The Examinations are open to Boys or Girls from any Canadian school.

#### PART I.-ORDINARY A.A.

SUBJECTS OF EXAMINATION.

I. PRELIMINARY SUBJECTS.

Writing.

English Dictation.

English Grammar, including Easy Analysis.

A Short Essay on a subject to be given at the time of the Examination.

Arithmetic (all the ordinary rules, including Square Root and a knowledge of the Metric System).

Geography (acquaintance with the maps of each of the four continents, and of British North America).

British History and Canadian History.

New Testament History.\* (Gospels and Acts, as in Maclear).

\* Candidates will be exempted from examination in this subject only if their parents or guardians make written objection thereto. In such case Taylor's First Principles of Modern History will be required.

#### Latin:

Cæsar.– Latin G Virgil.– Prose C text, a

Greek :--

Xenoph Greek ( Prose ( text,

French:-

French Easy t: and fi The rep tive re

German:-

Gramma Synta: Englis amour transla accept Joynes'

Arithmetic:-

As requi ordina greate

## II. OPTIONAL SUBJECTS.

## Section 1.-Languages.

## Latin:

Cæsar.-Bell. Gall., Bks. 1. and II. Latin Grammar. Virgil.-Aeneid, Bk. I. 200 marks. Prose Composition, based on the prescribed prose, text, and Easy Translation at Sight.

Xenophon.—Anabasis, Bk. I.		
Greek Grammar.		
Prose Composition, based on the prescribed prose	200	do.
text and Easy Translation at Sight		

#### French :-

French Grammar.					
Easy translation,	from	English	into	French,	
and from Frenc	h into	English.			1
The reproduction	in Fre	ench of a	an eas	sy narra-	100
tive read in Eng	lish.				

#### German:-

Grammar.-Vandersmissen's Accidence and Syntax, especially the Accidence, including English German Exercises. An equivalent amount of Grammar and English-German translation from any good manual will be accepted in place of Vandersmissen.

100 do

do

ur con-

t and a

: Exam-

).

y if their lor's First

Greek :-

asy Iranslation at Sight.

	ranslation,	from	English	into	French.	
and f	from Frenc	h into in Fre	English		sy narra-	100

Joynes' German Reader.

## Section 2.-Mathematics.

#### Arithmetic:-

As required for Model School Diploma. All ordinary commercial rules, fractions of greater complexity, circulating decimals, cube

115,

D THE

IONTREAL,

ID RECOG-

)F PUBLIC

noxville ; n to the of satisof neces-

Canadian

root, the mensuration of rectangles, circles, rectangular prisms, rectangular pyramids, cylinders, cones, spheres, and all such figures as can be resolved into or referred to these elements. The use of six figure Loga- rithms	100	do	<b>Sectio</b> Botany* (as i Penhal Plants,
Geometry:—		. · ·	A collect
Euclid, I., II., III., with easy Deductions	100	do	perly mc each p
Algebra:—			Chemistry (a
Elementary Rules, Involution, Evolution, Frac- tions, Indices, Surds, Simple and Quadratic Equations of one or more unknown quan- tities.	100	do	pp. I t Physiology a mediate Physics (as in (
Plane Trigonometry:			(Chapte
(As in Hamblin Smith, pp. 1-100. omitting Ch. XI.)	100	đo	Geometrical an
Section 3.—English.			Geometrical.— R3, or McLeoo
The English Language: West's Elements of English Grammar (Cam- bridge University Press.) Trench's Study of Words.	100	do	Freehand.—Ru the Dominion 1 The followin
English Literature:—			Drawing:
Stopford Brooke's Primer of English Literature, (New Edition.) Shakspere's Richard II. Selections from Tennyson, Part I., (Rowe and Webb. Macmillan.)	100	do	<ul><li>(a) Freeh</li><li>(b) Drawi</li><li>(c) Eleme</li></ul>
History.—(As in Primers of Greece and Rome, and Collier's Great Events)	100	do	I. To obtain 1 must pass in all Optional subject from each of the
Physical Geography:—Hinman's Eclectic Physical Geography is recommended	100	do	* The Head Teach collection, and also (o made. † These bl anks ma

## Section 4.--Natural and Physical Sciences, etc.

00

00

00

00

00

do

do

do

do

do

do

do

do

273

Botany* (as in Groom's Elementary Botany, with Penhallow's Guide to the Collection of Plants, and Blanks for Plant Descriptions <sup>†</sup> ).	100	đo
A collection of not more than 50 specimens pro- perly mounted and named will be required of each pupil.		
Chemistry (as in Remsen's Elements of Chemistry, pp. 1 10 160)	100	do
Physiology and Hygiene (as in Cutter's Inter- mediate.)	100	do
Physics (as in Gage Introduction to Physical Science, (Chapters I., II., III., IV. and V.)	100	do
Geometrical and Freehand Drawing	100	do
Geometrical.—Vere Foster R1 and R2, also problems R3, or McLeod's Geometrical Drawing.	119 to	129 of
FreehandRules of Perspective. Drawing from the	object	(as it

The following subjects may be taken instead of Geometrical Drawing:

the Dominion Freehand Drawing books, numbers I to 5, inclusive.)

(a) Freehand object drawing with shades and shadows.

(b) Drawing from the cast.

(c) Elementary water color drawing.

#### REGULATIONS.

I. To obtain the Certificate of Associate in Arts, Candidates must pass in all the Preliminary subjects, and also in any six of the Optional subjects, provided that the six include one subject at least from each of the four Sections.

\* The Head Teacher of each school will forward one specimen from each pupil's collection, and also (on a furnished form) a detailed statement as to the collection made.

† These bl anks may be obtained from booksellers in Montreal or else where,

S

2. In addition to the six Optional subjects selected for passing, Candidates may take other Optional subjects, but the total possible number of marks obtainable in all the Optional subjects chosen must not exceed 1000.

3. Candidates will not be considered as having passed in any subject, unless they have obtained at least 40 per cent. of the total number of marks obtainable in that subject.\*

4. The otal number of marks gained by every Candidate in the Optional subjects shall be added up, and the Candidates arranged in order of merit in a printed list at the close of the Examination, those who are over 18 years of age on the first day of June being in a separate list. The marks in any subject shall not be counted if the Candidate has obtained less than 40 per cent. in that subject.

5. Candidates who obtain at least 75 per cent. of the marks in any Optional subject shall be considered as having answered creditably in that subject, and special mention of the same will be made in the Associate in Arts Certificate.

6. Candidates who pass in the subjects of the University Matriculation Examinations may, without further examination, enter the Faculties of Arts and Applied Science. (See Note 2 infra.)

7. Candidates who fail, or who may be prevented by illness from completing their examination, may come up at the next examination without extra fee.

C. Candidates who pass in all the Preliminary subjects may, at any subsequent examination, take the Optional subjects only, and without extra fee.

9. The Head Master or Mistress of each school must certify to the character and ages of the pupils sent up for examination.

10. The examinations will begin on Monday, May 29th, at 9 a.m.

II. Lists o by the Candi be transmitte or before A will be furnis

NOTE I.—N of Academies in order to c scribed fee, via Candidates

will be exemp amination.

The answer: for the purpor The comple Council of Pu may be obtain ment of Publi

NOTE 2.-M

In Arts.—(1) Arithmetic ; (1) British History not already ta Chemistry, Phy not previously

In Applied S definitions of I Dictation, Com Literature, and (Matriculation University Sessisties.)

<sup>\*</sup> When two or more books or subjects are prescribed for one examination it is necessary to pass in each. Candidates will not be allowed to pass in the Preliminary Grammar, unless they show a satisfactory knowledge of Syntax (Parsing, Analysis, and questions connected therewith). In Classics, at least one-third of the marks allotted to Grammar must be obtained.

for passing, otal possible chosen must

ssed in any of the total

lidate in the tes arranged Examination, une being in be counted if at subject.

ie marks in vered creditvill be made

rsity Matri-1, enter the fra.)

illness from examination

cts may, at s only, and

st certify to on.

h, at 9 a.m.

imination it is e Preliminary , Analysis, and irks allotted to 275

II. Lists of the names, ages, and Optional subjects to be taken by the Candidates, together with a fee of \$4 for each Candidate, must be transmitted to the Secretary, McGill University, Montreal, on or before April 30th. (Blank forms and copies of the regulations will be furnished on application.)

NOTE I.—No fees will be exacted for the examination of pupils of Academies under the control of the Protestant Committee; but in order to obtain the certificate from the Universities, the prescribed fee, viz., \$4, must be paid to the Secretary of the University. Candidates who pass Grade II of the Academy Course of Study will be exempted from the Preliminary Subjects of the A. A. Examination.

The answers must be written in the answer book, specially made for the purpose, under the direction of the Board of Examiners.

The complete regulations of the Protestant Committee of the Council of Public Instruction with reference to these examinations may be obtained on application to the English Secretary, Department of Public Instruction, Quebec.

#### NOTE 2.-MATRICULATION SUBJECTS REFERRED TO IN REG. 6.

In Arts.—(1) Latin or Greek; (2) Geometry; (3) Algebra; (4) Arithmetic; (5) English Grammar; (6) English Dictation; (7) British History; (8) English Literature; (9) Greek or Latin (if not already taken), or two Modern Languages; (10) Botany or Chemistry, Physical Geography, Physics, or alternatively a Language not previously taken.

In Applied Science.—Geometry (Euclid, Bks. 1. to IV., VI., and definitions of Bk. V.), Algebra, Trigonometry, Arithmetic, English Dictation, Composition, English Grammar, British History, English Literature, and one Language, viz., Greek, Latin, French or German.

(Matriculation Examinations are also held at the opening of the University Session in September. See Calendars of the Universities.)

. . . . . .

## PART II.-ADVANCED A. A.

## SUBJECTS OF EXAMINATION.

## I. PRELIMINARY SUBJECTS.

As under Part I.

#### II. OPTIONAL SUBJECTS.

#### Section 1.-Languages.

### Latin:-

Virgil.—Aeneid, I.
Cicero.—In Catilinam, I. and II.
Grammar, Prose Composition (Collar's Practical Latin Composition, Parts III. and IV.), Translation at Sight.

#### Greek :-

Xenophon.—Anabasis, I. and II. Homer.—Illiad, IV., and Odyssey, VII. Translation at Sight. Grammar and Prose Composition (Abbott's Arnold's Greek Prose Composition, Exercises 1 to 25).

French :---

Le Livre de mon Ami, by A. France. Molière, Le Bourgeois Gentilhomme. Translation at sight from French into English, and fror English into French. Grammar and Dictation.

German:-

Lessing, Emilia Galotti. Schiller, Der Kampf mit dem Drachen. Grammar and translation from English into German.

## Section 2.-Mathematics.

Geometry :-

Euclid, Bks. I. to IV., Defins. of Bk. V., Bk. VI.

Algebra:-

To the

Trigonometry As in

The English . Lounst

> Cook's XIII Chauce Press A Com

English Litera The El

> Age o ton, (

History :--

Grecian Roman death English in Gre

#### Section

Botany:-Gray'

General Canadia Orders Credit wi

Chemistry:-Inc

Also, an Montrea

Algebra :---

To the end of Progressions.

#### Trigonometry:-

As in Hamblin Smith (the whole).

#### Section 3.-English.

The English Language:-

Lounsbury's History of the English Language.

Cook's First Book of Old English (Ginn, Boston), Ext. XIII inclusive, with grammatical question arising therefrom. Chaucer's Proloque to the Canterbury tales, (Skeat, Clarendon Press.) 10-

A Composition.

#### English Literature:-

The Elizabethan Period (Morley's First Sketch, Herford's Age of Wordsworth (Bell), Pope's Essay on Criticism (Churton, Collins, Macmillan), Milton's Paradise Lost, Bk. I.

#### History:-

Grecian History.—The Persian and Peloponnesian Wars. Roman History.—From the Wars of Marius and Sulla to the death of Tiberius.

English History.—The Reformation and Puritan England, as in Green's Short History.

#### Section 4.-Natural and Physical Sciences, etc.

Botany:-Gray's Text-Book of Structural Botany.

General Morphology and Classification, Determination of Canadian Species, exclusive of Thallophytes. Distribution of Orders represented in Canada.

Credit will be given for collections of plants as under Part I.

## Chemistry:-Inorganic, as in Remsen's Elements.

Also, an examination in Practical Work (to be held only in Montreal and at Lennoxville.)

Latin Comht.

ld's Greek

and fror

n.

#### Physics:-As in Gage and Fessenden's High School Physics.

Also, an examination in Practical Work (to be held only in Montreal and Lennoxville.)

Drawing:-Orthographic Projection, including Simple Penetrations, Developments and Sections, as in Davidson's Orthographic Projection.

## REGULATIONS.

The Regulations of Part I., with the following modifications and additions, will apply to the advanced subjects:-

I. Candidates who pass in six of the advanced subjects including one at least from each of the four Sections) will receive an Advanced A. A. certificate. The number of marks given to each subject will be the same as in Part I., and additional advanced subjects may be taken as in Reg. 2, Part I.

2. Candidates who fail in one or more of the subjects required for the advanced A. A. may, on the recommendation of the Examiners, be given an ordinary A. A. certificate.

3. The examinations in the advanced subjects will be held at the same time and in the same manner as those in the ordinary subjects. They will be open to all who have already passed in the preliminary subjects, whether they have taken the ordinary A. A. or not. The preliminary subjects must be taken either one or two years before the advanced subjects.

4. Candidates must, before April 30th, give notice of intention to present themselves for the examination, specifying the optional subjects in which they wish to be examined.

5. The ordinary fee of \$4.00 must be paid before taking the preliminary subjects, and an additional fee of \$10 at the time of making application for the advanced Examination; A Candidate who fails to pass the Advanced A. A. Examination shall be required to pay a fee of \$5 for every subsequent Advanced A. A. Examination at which he may present himself.

† Candidates from Academies under the control of the Protestant Committee of the Council of Public Instruction are exempt from the former fee, but not from the latter.

No.

44

Sarah K. 1

SU

James Ste Eva Jacks 72 Wm. E. C 92 John A. M 59 134 Jean Angu Kathleen 7 143 Wm. Clen 93 Winifred N 141 Henry D. 79 Margaret C 94 122 Janet Dunl Sherman B III Gertrude Ia 139 Mabel Rob 142 Francis H. 60

114 Walter J. E. Maggie Isal 130

- Emma M. 96 Eva A. Boy 76
- Robert Ede 25
- Alice Nelso 140
- Florence We 144

58 Frederick R

- Gerald M. S 117
- 124 Pearl W. L

vsics.

ild only in

enetrations, thographic

ations and

cts includreceive an en to each anced sub-

ts required of the Ex-

held at the ry subjects. preliminary not. The ears before

ntention to itional sub-

ig the preof making who fails d to pay a ination at

## LIST

OF

## SUCCESSFUL CANDIDATES

## RESULTS OF EXAMINATIONS, 1898.

No.		Marks
	ADVANCED ASSOCIATES IN ARTS.	
1	Sarah K. Crawford (Lennoxville Model School),	386
	ASSOCIATES IN ARTS.	
	I. Under 18 Years of Age.	
44	James Stevenson (Danville Academy),	781
72	Eva Jackson Fraser (Lachute Academy),	760
92	Wm. E. C. Miller (Quebec High School),	757
59	John A. McDonald (Huntingdon Academy),	756
134	Jean Angus (Westmount Academy),	753
143	Kathleen Terrill (Westmount Academy),	740
93	Wm. Clement Munn (Quebec High School),	732
141	Winifred Nolan (Westmount Academy),	731
79	Henry D. Hunting (Lennoxville Model School)	727
94	Margaret O. Buchanan (Girls' High School, Quebec),	721
122	Janet Dunlop Douglas (Waterloo Academy),	715
111	Sherman Boright (Sutton Academy),	706
139	Gertrude Jarvis (Westmount Academy),	703
142	Mabel Robertson (Westmount Academy),	684
60	Francis H. McLaren (Huntingdon Academy),	679
114	Walter J. Healy (St. Francis College School),	677
130 96	Maggie Isabel Savage (Waterloo Academy), Emma M. Munn (Girls' H. School, Quebec), } equal	669
76	Eva A. Bown (Lennoxville Model School),	658
25	Robert Edey (Aylmer Academy),	558
140	Alice Nelson (Westmount Academy),	653
144	Florence Woodley (Westmount Academy),	650
58	Frederick R. Maxwell (Huntingdon Academy),	643
117	Gerald M. Smith (St. Johns High School),	639
124	Pearl W. Lawrence (Waterloo Academy),	632

Committee of not from the

No.		Marks.		
40	Grace Wales (Cookshire Academy),	631	No.	
132	Maud Effie Whitehead (Waterloo Academy),	606	61	Kennet
97	Florence M. C. Raymond (Girls' High School, Quebec),	605	55	Ellen E
136	Holone Prodie (Westmount Academy)		14	Lillian
138	Georgina Hood """), }equal	601	135	Muriel
71	Ermina Carpenter (Lachute Academy),	597	26	Harold
5	Rupert B. Buchanan (Abingdon School),	590	95	Theodo
126	Annie C. Matheson (Waterloo Academy),	583	21	Frank 1
7	Guy L. Ogilvie (Abingdon School),	573	18	Florenc
81	Ada F. Smiley (Lennoxville Model School),	541	104	Jas. E.
88	Herbert Fraser (Portage du Fort Model School),	539	146	Anson ]
84	Grace E. Wallace, (Magog Model School),	537	36	Grace E
66	Anita B. Bailey (Knowlton Academy),	536	46	Mina B.
16	S. Greenleese (Miss Symmers' and Miss Smith's School),	526	62	Hartley
145	Woodley (Westmount Academy),	522	56	Wilhelm
40%	Morin,	493	57	Marion
123	ha L. Fessenden (Waterloo Academy),	487	45	Herman
52	Janie I. Norris Granby Academy),	485	75	Edith L
125	Sylvia B. Lee (Waterloo Academy),	484	149	Marion .
42	Della R. Barnard (Danville Academy),		30	Louise N
67	Harold MacGowan (Knowlton Academy), (equal	482	27	John M.
34	Carrie Trenholme (Coaticook Academy),	474	32	Nellie M
131	Esther M. Swett (Waterloo Academy),	468	50	Edith K.
41	Guy C. Boright (Cowansville Academy),	462	105	Edward
102	Sarah C. Foss (Sherbrooke Academy),	452	53	Florence
127	Gertrude E. Neill (Waterloo Academy),	437		
39	Persis Coates (Cookshire Academy),	435		
87	Constance Eason (Portage du Fort Model School),	428	70	Catherin
33	George L. Doak (Coaticook Academy),	425	85	Gertrude
48	Fanny Robinson (Dunham Ladies' College),	418	43	Alfred (
35	Kate E. Hitchcock (Compton Ladies' College),	416		
121	Florence M. Ogden (Three Rivers Academy),	409		
89	George W. Findlay (Quebec High School),	402	8	
28	George Batcheller (Bedford Academy),	381	17	
116	Clement J. Wilcox (St. Francis College School),	371	162	
120	Muriel Houliston (Three Rivers Academy),	358	174 182	
73	Margaret E. Mackie (Lachute Academy),	356	182	
83	Allen E. Smith (Magog Model School),	353	196	
108	Edith A. Fee (Stanstead Wesleyan College),	346	210	
77	John Burrill (Lennoxville Model School),	332	221	
133	Wm. T. Anglin (Westmount Academy),	328	231 243	
			251	
			260	
			269	

l

II. Over 18 Years of Age. No. Marks. Kenneth C. Muir (Huntingdon Academy), Ellen Brims (Huntingdon Academy), Lillian Beatrice Evans (Miss Symmers' and Miss Smith's School), Muriel Baillie (Westmount Academy), Harold Watt (Aylmer Academy), 6c8 Theodora MacNaughton (Girls' High School, Quebec), Frank H. Fox (Private Tuition), Florence C. Prowse (Miss Symmers' and Miss Smith's School), Jas. E. Waterhouse (Sherbrooke Academy), Anson L. Raymond (Williamstown High School), Grace H. W. Stevens (Compton Ladies' College), Mina B. Filliter (Dunham Ladies' College). Hartley M. Pearson (Huntingdon Academy), Wilhelmina Cunningham (Huntingdon Academy), Marion E. Gamble (Huntingdon Academy), Herman K. Stockwell (Danville Academy), Edith L. Strong (Lachute Academy), Marion A. Blair (Chicoutimi English Protestant School), Louise M. Miller (Clarenceville Model School), John M. Montle (Bedford Academy), Nellie M. Tasker (Clarenceville Model School), Edith K. Wells (Dunham Ladies' College), Edward J. Witty (Sherbrooke Academy), Florence Runnells (Granby Academy), PASSED IN 1897 AND AGAIN IN 1898. Catherine C. Barron (Lachute Academy), Gertrude McClenaghan, (Ormstown Academy), Alfred Carson, (Danville Academy), PASSED THE PRELIMINARY SUBJECTS. (In order of numbers.) II 80 182 22I 24 I 268 2,2 266 

1),

Marks.

## MCGILL UNIVERSITY, MONTREAL.

282

#### JUNE, 1898.

The following Candidates have passed the Examinations required for Entrance.

## I. In Arts.

Angus, Jean,	Montreal	MacNaughton, Theodore	I., Quebec
Baillie, Muriel,	Westmount, Q	Miller, Wm. E. C.,	Quebec
Barron, Catherine C.,	Lachute, Q	Munn, Wm. Clement,	Quebec
Brodie, Helena,	Westmonnt, Q	Muir, Kenneth C.,	Huntingdon, Q
Buchanan, Rupert B,	Montreal	Munn, Emma M.,	Quebec
Carson, Herman A.,	Danville, Q	Nelson, Alice,	Westmount, Q
Cole, George E.,	Westmount, Q	Nolan, Winnifred,	Westmount, Q
Dickson, Ada D.,	Pembroke, O	Parker, Edward,	Toronto, O
Evans. Beatrice L.,	Montreal	Raymond, Florence M.	C., Quebec
Fox, Frank H.,	Montreal	Robertson, Mabel,	Westmount, Q
Greenleese, Mary S.,	Montreal	Schrag, Astor R.,	Brantford, O
Healey, Walter J.,	Richmond, Q	Seamen, John C.,	Montreal
Heatlie, Fred. W.,	Enfield, O	Stevenson, James,	Danville, Q
Hood, Georgina,	Westmount, Q	Terrill, Kathleen.	Westmount, Q
Hunting, Henry D.,	Lennoxville, Q	Townsley, Robert,	Montreal
Jarvis, Gertrude,	Westmount, Q	Wales, Grace,	Cookshire, Q
Irwin, Wm. H.,	London, O	Warren, Anna B.,	Toronto, O
Jack, Milton,	Montreal	Warren, James D.,	Toronto, O
McDonald, John A.,	Huntingdon, Q	Woodley, Arthur,	Westmount, Q
McClemaghan, Gertrude		Woodley, Florence,	Westmount, Q
McAvity, Allan G.,	Rothsay, N.B.	,,	

#### II. Medicine.

Byers, John R.,

## Gananoque, 0 | Allum, A. W.

#### 111. Applied Science.

Abraham, Leonard,	Montreal	Moore, Douglas J. E.,	Montreal	
Baker, Percival C.,	Montreal	Murphy, Wm. E.,	Shelburne, N.S.	
Barwick, Wm. S.,	Vancouver, B.C.	Newton, Samuel R.,	Brigham, Q	
Bigger, Howell,	Ottawa, O	Ogilvie, Guy L.,	Montreal	
Dunfield, John C. W.,	Newfoundland	Ralph, Claude E.,	Ottawa, O	
Hartman, Clifford C.	A., Montreal	Ramsey, Colin P.,	Brigham, Q	
McBride, Wilbert G.,	Orangeville, O	Sugden, Oswald W.,	London, O	
McLaren, Francis H.,	Huntingdon, Q	Warren, Guy E.,	Toronto, O	

## SI

[The number n parentheses : three-fourths of at least forty p ville Model Scl don School, 4 to College, 22 to 2 sive; Clarence Compton Ladie Academy, 41, sive ; Granby A ness Academy, ( and 69 ; Lachu inclusive ; Mag du Fort Model S School, Quebec, brooke Academy School, 110 ; St School, St. Joh Academy, 120 an 145, inclusive ; 1 149, inclusive ; 7 sive ; Montreal 1

Greek.—70, 44 145, 135, 97, 5,\*\*

#### Optional Histo Advanced A.A

Renfrew, 0

## Latin .- 70, 44

111, 113, 124), (45, 123), 52, (127, 125), 71, 121, (33,

## English Langu

Optional Geogr 138, 38, (113, 25, 81 132, 145), (58, 110, (34, 82, 102), 50, 1:

Optional Arit. 111, (21, 127), (41, 119, 69, (10, 105).

Geometry.—141 135, 144), (30, 55, 72, 97, 125), 93, (

## STANDING IN THE OPTIONAL SUBJECTS.

[The numbers correspond with those in the preceding lists. Candidates whose numbers are n parentheses are equal in standing. Those preceding a single asterisk have obtained at least three-fourths of the marks ; those preceding a double asterisk, at least one-half ; those following, at least forty per cent. The numbers of the Schools and Candidates are as follows : Lennoxville Model School, 1 and 76 to 81, inclusive ; Montreal Collegiate Institute, 2 and 3; Abingdon School, 4 to 10, inclusive ; Miss Symmers' and Miss Smith's, 11 to 20, inclusive ; Sabrevois College, 22 to 24, inclusive ; Aylmer Academy, 25 and 26 ; Bedford Academy, 27 to 29, inclusive; Clarenceville Model School, 30 to 32, inclusive; Coaticook Academy, 33 and 34, Compton Ladies' College, 35 and 36; Cookshire Academy, 37 to 40, inclusive; Cowansville Academy, 41, Danville Academy, 42 to 45, inclusive; Dunham Ladies' College, 46 to 50, inclu\_ sive ; Granby Academy, 51 to 54, inclusive ; Huntingdon Academy, 55 to 62, inclusive ; Inverness Academy, 63 to 65, inclusive ; Knowlton Academy, 66 and 67 ; Lachine Model School, 68 and 69 ; Lachute Academy, 70 to 75, inclusive ; Lennoxville Model School, 1 and 76 to 81, inclusive; Magog Model School, 82 to 84, inclusive; Ormstown Academy, 85 and 86; Portage du Fort Model School, 87 and 88; Quebec High School, 89 to 93, inclusive; Girls' High School, Quebec, 94 to 97 and 266 to 268, inclusive ; Sawyerville Academy, 99 and 100; Sherbrooke Academy, 101 to 106, inclusive ; Stanstead Wesleyan College, 107 to 109 ; Sorel Model School, 110 ; Sutton Academy, 111 ; St. Francis College School, 112 to 116, inclusive ; High School, St. John's, Quebec, 117; St. Lambert Model School, 118 and 119; Three Rivers Academy, 120 and 121 ; Waterloo Academy, 122 to 132, inclusive ; Westmount Academy, 133 to 145, inclusive; High School, Williamstown, Ont., 146: Chicoutimi Eng. Prot. School, 147 to 149, inclusive ; The Grammar School, Montreal, 150 ; Montreal High School. 151 to 219, inclusive ; Montreal High School, (Girls'), 220 to 265 ; Girls' H. S., St. John, N.B., 499 and 500.

*Greek.*-70, 44, 61, 141,\* 114, 134, 24, 143, (2, 79, 92), 59, 14, (96, 139), 93, 85, 21, 144, 136, 145, 135, 97, 5,\*\* (43, 84), 104, 62, 95, 18, 80, 83.

Optional History.—117, 27,\* 134, 139, (41, 149), (7, 28), 36, 67, 498, 66, 98, 108,\*\* (109, 121). Advanced A.A—1.

French.....98, (92, 149), 94, (55, 59), (44, 64, 143), 18, (70, 111, 140), 134, 95, 79\* 89, (26, 97), (14, 41, 52, 93, 101, 142), (25, 46, 96), 114, (33, 40, 45, 56, 57, 72, 85, 104, 112, 122, 136, 139), 2, (71, 144), 48, 60, (16, 39, 42, 53, 58, 77, 82, 135, 138), 120, 141, 34, (23, 100, 102), 29, (27, 28, 35, 76, 83, 88, 103, 105, 113, 117, 124, 126),\*\* 30, 81, (5, 43), (3, 50, 66, 87, 109, 119, 121, 130, 132, 145, 148), 67, (36, 73, 78, 116). Advanced A.A.--1,\*\*

Latin.—70, 44, 114, (7, 40, 72), 61, 134, 92, 25, 59, 85, 2, 140, 88, (14, 93), 5, (96, 141), (95, 111, 113, 124), 26, 143, 94, (43, 117, 122), 97, 139, 144, (79, 130), 142, (36, 126), 87, 21, 120, (45, 123), 52, (127, 136), (132, 145), 66, (16, 119), 112, (52, 81), 150, (35, 42, 108), 34, (76, 115, 125), 71, 121, (33, 104, 109), 67, 3, (4, 32, 32, 41, 75, 84, 100, 137, 135, 138, 146).

#### English Language.-14, 94, 18, 16, 30, 149, 32.

Optional Geography. — 111,\* 76, (77, 144), (67, 122, 141), (94, 126), (46, 55, 104, 125, 135, 142), 138, 38, (113, 25, 86, 498), 140, (5, 101, 124, 143), (95, 96, 127, 136), (39, 48, 51, 66, 97), 49, (24, 40, 131, 132, 145), (58, 110, 130), 114, 84, (2, 6, 21, 26, 47, 116), (60, 115), (30, 83, 105), 33,\*\* (7, 146), 52, (34, 82, 102), 50, 123, 27, (32, 56, 118), (10, 112, 119), (53, 57, 106).

Optional Arithmetic—70, 72, 130, 28, 117, 98, (94, 102), 122, 132, 55, 76, 124, 58, \* 123, 88, 60, 111, (21, 127), (41, 77), 71, 25, (75, 125), 80, 68, 27, 56, 6, (42, 131), (87, 126, 150),\*\* 38, 73, 57, 119, 69, (10, 105).

Geometry.—141, (70, 134, 138), (136, 139), 18, (130, 143), 2, (59, 60, 117, 122), 102, (61, 88, 135, 144), (30, 55, 79, 132), 67, (4, 7, 142)\*, (43, 56, 66, 147), 121, (6, 96), (25, 26, 44, 58, 92), (14) 72, 97, 125), 93, (50, 109, 124), 32, (5, 62, 95, 113), (16, 40, 86, 110) '111, (45, 140), (85, 114)'

Entrance.

Quebec Quebec Quebec intingdon, Q Quebec estmount, Q estmount, Q Toronto, O Quebec stmount, Q Brantford, U Montreal Danville, Q estmount, Q Montreal lookshire, Q Toronto, O Toronto, O estmount, Q stmount, Q

Renfrew. 0

Montreal burne, N.S. Brigham, Q Montreal Ottawa, O Brigham, Q London, O Toronto, O

Physics.-146,\* 5.

Chemistry.-133, 146, 142, 140, 5, 114,\*\* (7, 115), (116, 138).

Trigonometry. -(76, 79), 81, 60, 93, (2, 89), (59, 61), (55, 92), 44, 4,\* 43, 5, 6, 7, 58, 3, 10 42,\*\*\* 85, (21, 116), 78, 62.

Advanced A.A.-1\*\*.

Drawing.-(71, 72), 81, 26, (58, 117), (74, 75), 76, 60, 73, 55, 25.\*\*

Physiology and Hygiene. 55, 61 (70, 93), 498, (60, 126), 46, (72, 94), \* 132, 127, (43, 66), (59, 92), 104, (49, 122), (26, 42), 142, (41, 71, 88, 111), (44, 85, 108), 87, (57, 102, 121, 124), (45, 143) 40, (48, 53, 89, 135), (58, 95, 130), (50, 109, 125), (56, 97, 103, 123), (30, 81, 96,  $^{13}$ 6), (32, 38, 84, 105, 117), 75, (34, 35, 51, 77, 149)\*\* (27, 106), (100, 131), (68, 69, 74, 82), (21, 120, 141), (25, 29, 67, 86, 138), (47, 101), 62, (39, 116), 28, 73.

English Literature. -45, 26, 55, 122, (131, 143), (70, 93), 125, (79, 94, 96), (14, 18, 59, 92, 97, 135, 142),\*(57, 114, 127), 40, (124, 126), (46, 104), (84, 88, 130), 61, 82, 95), (149, 498), 85, (254, 58, 60, 87, 89), (76, 109, 144), 110, (6, 7, 29, 43, 44, 56, 112, 139, 140), 141, (62, 133, 138), (5, 42, 66, 111), (39, 113), (16, 27, 52, 72, 117, 134), (2, 53, 73, 115), 36, 48, 49,\*\*(120, 121), (68, 71), (35, 47, 100, 136), (10, 50, 145), (51, 81, 9<sup>9</sup>, 101, 123), (74, 75, 105, 108), 77, 34, (3, 4, 33, 67, 83, 99, 106, 107, 116, 119, 146).

Advanced A.A.-I.

Botany. 70, 142, (134, 139), 135, (72, 79, 111, 138), 141, 14, 140, 85, 76, (46, 143), 48, \* 176, (16, 130), 122, (34, 55, 125), (71, 75, 105), 74, (60, 144, 498), 81, 131, 58, (36, 52, 145), (18, 110), 33, 50, (35, 132), (32, 124, 126, 133), 56, (30, 49), 47, (53, 73, 78, 64, 123), \* (102, 103), 51, 57, 83.

Advanced A.A.-1.

Algebra.—(36, 70, 141), (55, 143), (44, 72), 40, 61, 139, 92, (25, 39, 52, 83, 93), 84, 111, (59, 71), (3, 144), (102, 150), (96, 122, 134), (58, 85, 88), (21, 146), 28, (81, 109, 130), (2, 38), \* (4, 18, 33), (26, 79, 82), (41, 76, 98, 114), 34, (73, 149), (46, 66, 123, 124, 145), 127, (35, 43, 67, 86, 94, 142), 27, 14, (51, 57, 95, 132), (62, 74, 100, 135), (7, 60, 116, 498), (121, 138), (75, 120), (89, 136), 48, (69, 78), (10, 97), 42, (5, 30, 87, 117), \*\* (50, 113), 131, 68, 6, (56, 133, 140), (16, 45), (107, 126), (49, 108), (29, 106).

Advanced A.A.-I.\*

German.-109,\* (40, 140), 138, (16, 108), 142,\*\* 146, 133

E. Edwin How Samuel Clay, 1 Herbert M. Ma Arthur Burnet Charles Iles, M Henry Johnsor

Passe

Banfill, S. A., Barlow, W. M., Bayfield, G. E., Bearman, G. P Beattie, R. F., Bell, J., Blackett, J. W., Brears, C. F., Brown, C. H., B. Corbet, G. G., Corcoran, J. A., Covert, A. M., Cushing, H. B., Dalpé, W. H., B. Darche, J. A., Davidson, C., Deane, R. B., Dickson, S. M., Duncan, R. G., Duval, J. L., Fagan, G. A., B. Finnie, J. H., Forbes, A. M. T. Fox, A. C. L., Fraser, F. C., B. Gadbois, F. A., Gillies, B. W. D., Gadbois, F.

5, (42, 71), (39,

5, 7, 58, 3, 10

, (43, 66), (59, 124), (45, 143) 2, 38, 84, 105, 15, 29, 67, 86,

8, 59, 92, 97, 198), 85, (254 , 138), (5, 42, (68, 71), (35, ), 67, 83, 99,

18,\* 176, (16, , 110), 33, 50, 83.

.

84, 111, (59, 38),\* (4, 18, 86, 94, 142), 36), 48, (69, 6), (49, 108),

# Passed the University Graminations.

## SESSION 1897-98.

## FACULTY OF LAW.

PASSED FOR THE DEGREE OF B.C.L.

#### (In order of merit.)

E. Edwin Howard, B.A., Philipsburg, Q. Samuel Clay, B.A. (Cantab.), Montreal. Herbert M. Marler, Montreal. Arthur Burnet, Farnham Centre, Q. Charles Iles, Montreal. Henry Johnson Elliott, Montreal.

James Claud Hickson, B.A., Montreal. Charles Champoux, B.A. (Laval), Montreal.

John Keefer Kennedy, Montreal. Reginald Heber Rogers, B.A., Alberton, P.E.I., aegrotat.

## FACULTY OF MEDICINE.

PASSED FOR THE DEGREE OF M.D., C.M.

#### (Arranged alphabetically.)

Banfill, S. A.,	Magog, Que
Barlow, W. M., B.A	
Bayfield, G. E., Ch	arlottetown, P.E.I
Bearman, G. P,	Bell's Corners, Ont
Beattie, R. F.,	Economy, N.S.
Bell, J.,	New Glasgow, N.S.
Blackett, J. W., B.A	
Brears, C. F.,	Regina, N.W.T
Brown, C. H., B.A., 6	
Corbet, G. G.,	St. John, N.B
Corcoran, J. A.,	Warden, Que
	Grand Manan, N.B
Cushing, H. B., B.A	., Montreal, Que
Dalpé, W. H., B.A.,	Montreal, Que
Darche, J. A.,	Sherbrooke, Que
Davidson, C.,	Montreal, Que
Deane, R. B.,	Montreal, Que
Dickson, S. M.,	Montreal, Que
Duncan, R. G.,	Bathurst, N.B.
	Grande Ligne, Que
Fagan, G. A., B.A.,	North Adams, Mass
Finnie, J. H.,	Montreal, Que
Forbes, A. M. T.,	Montreal, Que
Fox, A. C. L.,	Winnipeg, Man
Fraser, F. C., B.A.,	Montreal, Que
Gadbois, F. A.,	Sherbrooke, Que
Gillies, B. W. D.,	Teesewater, Ont

Gladman, E. A.,	Lindsay, Ont
Grace, N.,	Montreal, Que
Green, F. W	Victoria R C
Harvey, F. W., B.A.	Abaraana Que
Houston, J. C., Ne	
Hudson, H. P.,	Che sea, Que
Hume, G. W. L., I	Leeds Village, Que
Jamieson, W. R.,	Ottawa, Ont
Lamb, J. A.,	Ottawa, Ont
Lang, A. A. J.,	Almonte, Ont
Long, C. B.,	Whitehall, N.Y
Lynch, W. W.,	Knowlton, Que
Macaulay, J. F.,	St. John, N.B
Macaulay, H. R.,	Montreal, Que
McAllister, D. H., B	
McCabe, J. A., B.A.,	
MacLean, J. N.,	Sarnia, Unt
McLaren, R. W.,	St. Raphaels, Ont
McLean, J. R., B.A.	
McLennan, P. A.,	Lancaster, Ont
McLeod, J.,	Hartsville, P.E.I
McMurtry, A. L.,	Bowmanville, Ont
Mooney, M. J.,	Inverness, Que
Myers. D. A.,	Prentiss, Wis
Ogilvy, C., B.A.,	Montreal, Que
Oppenheimer, S. S.,	Vancouver, B.C
O'Saughnessy, L. J	
o bunganessy, h. o	y oraniam, 14,0

Outhouse, J. S., B.A., St. Andrews, N.B.	, Schwartz, H. J.,	Quebec City, Que
Patterson, F. P., St. Martins, N.B.	Sihler, W. F.,	Simcoe, Ont
Patterson, R. U., Baltimore, Md	Smith, A. M., B.A.,	Petit Codiac, N.B
Peters, C. A., St. John's, Nfld	Stockwell, H. P.,	Danville, Que
Pigeon, W. H., Peterborough, Ont		Valens, Ont
Powers, M., B.A., Ottawa, Ont	Tiffany G. S.,	Alexandria, Ont
Robertson, D. McD., Pertn, Ont	Walker, P. McH.,	Grafton, N.D
Rose, W. O., Latteville, P.E.I	West, J.,	Montreal, Que
Scanlan, Harry, Gloucester, Mass	Whitton, D. A.,	Ottawa, Ont

FACULTY OF ARTS.

PASSED FOR THE DEGREE OF B.A.

In Honours.

(Alphabetically arranged).

## McGILL COLLEGE.

e First Rank .- BATES, GEORGE E. BISHOP, W. GORDON. BOURKE-WRIGHT, KATHERINE. BROOKS, HARRIET. CAMERON, FRANCES M. T. CAMPBELL, J. A. E. CARR, MURIEL B. DALGLEISH, ROBERT W DUFF, ALEXANDER H HEINE, M. CASEWELL. MEYER, JOHN B. MUNN, D. WALTER. PATERSON, ROBERT C. PLACE, EDSON G. SEIFERT, ETHEL M. SHIP, MOSES M. THOMPSON, JAMES R. WALKER, LAURA F. M.

Second Rank.-MCGREGOR, JAMES ALBERT MACLAREN, ARCHIBALD. MCLEOD, HENRY S. SHAW, A. LOUISE. TURNER, HENRY H. VINEBERG, ABRAHAM.

286

Class II.-

I.-

Class

Class III.—D S C

> S T M Æger.—B C M

(

ł

N

M W BACHELORS

CI

DE Gu Ho Ke Ro Wa

> Yo ADMI

Class I.—FER NUT RAI City, Que mcce, Ont odiac, N.B iville, Que alens, Ont adria, Ont afton, N.D treal, Que tawa, Ont 287

Ordinary B.A.

(In order of merit)

## McGILL COLLEGE.

Class I.-PEARSON, KATIE C.

Class II.-GRACE, A. H. PRUDHAM, W. W. TURNER, W. D. equal. REYNOLDS, M. EDNA. GARDNER, W. A. LENEY, J. M. equal. TARLETON, B. B. JORDAN, FLORENCE M. } equal. GILDAY, H. L. C. Ross, ARTHUR B. Class III .- DOVER, MARY V. STEEN, ALICE G. COLBY, J. C. WORTH, FULTON J. STUART, JAS. A. THOMAS, J. WOLFERSTAN. MOORE, PERCY C. Æger.-BLYTH, R. B.

PASSED IN SEPTEMBER, 1897.

CRACK, H. ARTHUR. MOORE, WILLIAM. WATSON, WILLIAM.

BACHELORS OF ARTS PROCEEDING TO THE DEGREE OF M. A. IN COURSE.

CROMBIE, WILLIAM T. B. DEEKS, WILLIAM E. GUSTIN, WILLIAM ALFRED. HONEYMAN, HOWARD ARTHUR. KEITH, NEIL DANIEL. ROGERS, REGINALD HEBER. WALLACE, JAMES MUIR. YOUNG, HY.

ADMITTED TO THE DEGREE OF LL.D. " Honoris causa." HUGH L. CALENDAR, M.A. (Cantab.), F.R.S.

INTERMEDIATE EXAMINÀTION.

#### McGILL COLLEGE.

Class I.—FERGUSON, COLIN C., NUTTER, J. APPLETON. RADFORD E. ALAN. } equal.

	DRY, M. HELENA.
	WILLIS, SAMUEL J.
	GARLICK, EDYTHE A.
	BROOKS, ELIZABETH A.
Class	II FORBES WILFRED M.
	COCHRANE, DONALD. COHEN, ABRAHAM. DIXON, JAS. D. MARCUSE, BELLA.
	CROWELL, BOWMAN C ELDER ROBERT. } equal.
	HARDY, CHAS. A JACKSON, E. GERTRUDE. } equal.
	SMITH, LILLIAN A.
	JOHNSON, J. GUY W. WEINFELD, HENRY. } equal.
Class	IIIRORKE, HELEN. ROWELL, ARTHUR H. } equal.
	ELLS, SYDNEY C. } equal.
	SCOTT, GEO. W., SEVER, HANNAH D. } equal.
	AINLEY, LAWRENCE. DEWITT, JACOB, WALKER, HORATIO.
	COOKE, H. LESTER.
	MACMILLAN, CYRUS J. MACKINNON, CECIL G. } equal.
	RITCHIE, CHAS. F.
	NEWSON, WM. G.
	GRIER, GEO. W. (s).
	HOLMAN, CARRIE E. (8).
	JENKINS, CHAS. E. (8).
	LUTTRELL, HENRY P. (8).
	MITCHELL, SYDNEY. (8).
	REFORD LEWIS L. (8).
	SANGSTER, LIZZIE. (8 .
	WOODLEY, EDWARD C. (8).

s. With supplemental in one subject (arranged alphabetically).

## MORRIN COLLEGE.

Class II.—Fyles, Faith. Class III.—LAVERIE, J. H. (8).

## STANSTEAD WESLEYAN COLLEGE.

Class II.-HILL, (O. W.) FLINT (MARY). Class III.-FLINT, ROY.

288

PASSED F(

1

I E

R

D

B

Y

## FACULTY OF APPLIED SCIENCE.

## PASSED FOR THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

#### (In Order of Merit).

#### CIVIL ENGINEERING.

McCarthy, George Arnold, Moncton, N.B. Macphail, William Matheson, Orwell, P.E.I. Irving, Thomas Tweedy, Vernon River Bridge, P.E.I. Anderson, William, Beaumont, Ottawa, Ont., Matheson, Ernest George, Oyster Bed Bridge, P.E.I. Bond, Frank Lorne Campbell, Montreal. Benny, Walter Wilfrid, D'Aillebout, Que.

#### ELECTRICAL ENGINEERING.

Cape, Edmund Graves, Hamilton, Ont., Sheffield, Charles, Kingston, Ont. } equal. Eaves, Edmund, Montreal, Que. Maclennan, Frank William, Cornwall, Ont. Symmes, Howard Church, Aylmer, Que. Archibald, Tarry Patton, Antigonish, N.S. Scott, James Henderson, Outremont, Que.

Simpson, Joseph Manley, Stratford, Ont., ægrotat.

MECHANICAL ENGINEERING.

Angel, Frederick William, St. John's, Newfoundland. Laurie, Albert, Montreal. Waterous, Charles Alexander, Brantford, Ont. Patton, Walter Hugh, Huntingdon, Que. McRae, John Bell, Ottawa, Ont. Mackerras, John Dennistoun, Kingston, Ont. Dean, Bertram Dodd, Hamilton, Ont. Thomas, Leonard Edward Lawson, Melbourne, Que. Bacon, Frederick Thomas Howard, Montreal. Davidson, James Herbert, Montreal. Beatty, David Herbert, Sarnia, Ont.

Reaves, Campbell, Montreal, Mackie, James Douglas, Kingston, O. } ægrotant.

#### MINING ENGINEERING.

Davis, Angus Ward, Montreal. Butler, Percy, Montreal. Young, George Albert, Kingston, Ont. Atkinson, Donald Cameron Thomson, Etchemin, Que.

lly).

Ainley, Charles Newth, Almonte, Ont. MacLean, Thomas Archibald, Charlottetown, P.E.I. Atkinson, William Josiab, Glenboro, Man. Hillary, George Michael, Whitby, Ont.

#### PRACTICAL CHEMISTRY.

Scott, Arthur Putnam, Montreal. Drysdale, George Arrowsmith, Boston, Mass., U.S.A.

#### ADMITTED TO THE DEGREE OF BACHELOR OF APPLIED SCIENCE.

#### (Ad eundem.)

Durley, Richard John, B.Sc., University of London, England.
Hardman, John E., B.Sc., Mass. Inst. Tech., Boston, Mass., U.S.A.
Hedrick, Ira Grant, B.C E., University of Arkansas, U.S.A.
Strickland, Tom Percival, B.E., University of Sydney, N.S.W. Australia.

## ADMITTED TO THE DEGREE OF MASTER OF APPLIED SCIENCE.

#### (In Course.)

2

Brodie, Alexander, B.A.Sc., McGill University, Montreal. Hersey, Milton L., B.A.Sc., Montreal. King, Robert O., B.A.Sc., Toronto, Ont.

#### ADMITTED TO THE DEGREE OF MASTER OF ENGINEERING.

#### (In Course.)

Durley, Richard John, B.Sc., B.A.Sc., McGill University, Montreal. Hardman, John E., B.Sc., B.A.Sc., Montreal. Herdt, Louis, B.A.Sc., E.E., McGill University, Montreal.

## FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

PASSED FOR THE DEGREE OF D.V.S.

Baldwin, B. K. Bell, W. Lincoln, Burke, G. H. Cleaves, A. W. Callen, D. Hart, J. B. Hollingsworth, J. B. Lambert, G. H. Paquin, L. A. Pfersick, J. G. Spanton, John P. Wallis, W. B. Year

of

Award.

1896 1896	G B
1896	D
1896	M
1896	H
1897	M
1897	H
1897	Re
1807	W

NAMES OF E: TIONERS

Nutter, J. App Dey, M. Helen

Radford, E. Al Brooks, Elizab

McEwen, John Copeman, Jos. F Sterns, H. Edg MacNaughton,

At the Sec value \$62.50, w At the Firs value \$62.50, w Bursaries given awarded to Nor

# Scholarships and Exhibitions.

## SESSION 1897-98.

## FACULTY OF ARTS.

I. SCHOLARSHIPS (Tenable for two years).

Year of Award.	Names of Scholars.	Subjects of Exam- ination.	Annual Value.	Founder or Donor,
1896	Gardner, Wm. A.	Mathematics.	\$125	W. C. McDonald.
1896	Brooks, Harriet	Mathematics.	125	Lord Strathcona and Mt. Royal.
1896	Duff, Alex. H.	Nat. Science.	125	W. C. McDonald.
1896	Munn, D. Walter	Class. & Mod. Lang	120	Miss Barbara Scott
1896	Heine, M. C.	Class . & Mod. Lang	IIO	Chas. Alexander.
1897	McClung, Robt. K.	Mathematics.	125	W. C. McDonald.
1897	Henderson, ErnestH.	Nat. Science.	125	W. C. McDonald.
1897	Robertson, Lemuel	Class & Mod. Lang	125	W. C. McDonald.
1897	Wainwright, Arnold	Class.&Mod.Lang	125	W. C. McDonald.

#### II. EXHIBITIONS (Tenable for one year.)

NAMES OF EXHIBI- TIONERS.	Academic Year.	Annual Value.	Founder or Donor.
Nutter, J. Appleton Dey, M. Helena	Second	\$125 120	W. C. McDonald, Lord Strathcona and
Radford, E. Alan	"	125	Mount Royal. George Hague.
Brooks, Elizabeth A.	**	100	Lord Strathcona and Mount Royal.
McEwen, John R.	First	125	W. C. McDonald.
Copeman, Jos. Hodge	66	125	W. C. McDonald.
Sterns, H. Edgar	46	100	Major Hiram Mills.
MacNaughton, W.G	46	90	Mrs. Jane Redpath

At the Second Year Exhibition Examination a W. C. McDonald Bursary, value \$62.50, was awarded to Donald Cochrane. At the First Year Exhibition Examination a W. C. McDonald Bursary,

At the First Year Exhibition Examination a W. C. McDonald Bursary, value \$62.50, was awarded to Edwin O. Brown, and two Sir William Dawson Bursaries given by the New York Graduates' Society, value \$30 each, were awarded to Norval Dickson and Robert J. Harper.

CIENCE.

A .

and. s., U.S.A. 5.A. y, N.S.W.

MENCE.

RING.

Montreal.

1.

ND

· P.

# Prizes, Honours and Standing.

#### SESSION 1897-1898.

## FACULTY OF LAW.

#### RESULTS OF EXAMINATIONS.

#### THIRD YEAR.

Eratus Edwin Howard, B.A., Philipsburg, Q., First Rank Honours and Elizabeth Torrance Gold Medal.

Samuel Clay, B.A. (Cantab.), London, Eng., First Rank Honours and Prize of Fifty Dollars.

Herbert Mereaith Marler, Montreal, First Rank Honours and Prize of Twenty-five Dollars.

Arthur Burnet, B.A., Farnham Centre, Q., First Rank Honours.

#### SECOND YEAR.

Frank C. Saunders, B.A., First Rank General Standing and Prize of Fifty Dollars. Walter H. Lynch, First Rank General Standing and Prize of Twenty-Five Dollars.

#### PASSED THE SESSIONAL EXAMINATIONS.

Frank C. Saunders, B.A., Walter H. Lynch, Wm. Evander MacIver, Melbourne, Q.; Edmond B. Drolet, William Carlos Ives, Joseph N. F. Décarie, Walter E. G. Thorneloe, William Frederick Carter, Ernest E. Vipond, William S. Ball, Edward P. F. McCabe.

#### FIRST YEAR.

 A. W. G. Macalister, First Rank General Standing and Scholarship of \$100.
 Samuel G. Archibald, B.A., First Rank General Standing and Scholarship of \$100.

Henry N. Chauvin, First Rank General Standing, Prize of \$25, and British Columbia Graduates' Society Prize of \$10.

Lawrence Macfarlane, B.A., First Rank General Standing.

#### PASSED THE SESSIONAL EXAMINATION.

A. W. G. Macalister, S. G. Archibald, B.A., H. N. Chauvin, L. Macfarlane, B.A., Thomas E. Walsb, G. H. Baker, Alfred Dobell, B.A., Harry Trihey, F. T. Enright, J. C. Redpath, L. Margolese, Edmund A. Burke, W. F. Kay.

#### ROMAN LAW.

#### SPECIAL PRIZE LIST.

In this list the results of the four Class Examinations are added to those of the final examination. ROMAN L.

Cla Cha

HISTORY 2

How nedy

CONSTITUI LAFLEUR.

> How El

COMMERCIA

Howa ned

CIVIL LAW, Howa and

CIVIL LAW 1 Clay a Kem

CIVIL LAW

Clay, 1 poux

CRIMINAL LA

Clay, F nedy,

CIVIL PROCE

Iles, Ola nedy.

ROMAN LAW.

Lynch, Ball.

Archibald, S. G.
 Clay, S.
 Proxime accessit, Howard, E. E.

#### STANDING IN THE CLASSES.

#### THIRD YEAR.

ROMAN LAW-Dean WALTON. Clay; Howard and Marler, equal; Burnet, Iles, Hickson, Elliott, Champoux, Kennedy.

HISTORY AND MUNICIPAL LAW-Professors McGoun and FORTIN.

Howard, Burnet, Iles, Clay, Marler, Champoux, Hickson, Elliott, Kennedy.

## CONSTITUTIONAL AND INTERNATIONAL LAW-Professors McGoun and LAFLEUR.

Howard, Clay, Marler, Iles, Kennedy, Burnet, Hickson, Champoux, Elliott.

COMMERCIAL LAW-Prof. McGoun.

Howard, Iles, Clay, Marler, Burnet, Champoux, Hickson, Elliott, Kennedy.

- CIVIL LAW, No. 1—Professors FORTIN and LAFLEUR. Howard, Iles, Burnet, Marler, Elliott, Kennedy, Hickson, Champoux and Clay, equal.
- CIVIL LAW No. 2—Professor DOHERTY. Clay and Howard, equal; Burnet; Marler and Elliott, equal; Iles, Kennedy, Hickson, Champoux.

CIVIL LAW No. 3-Professor FORTIN and Lecturer GEOFFRION.

Clay, Elliott, Burnet, Marler, Howard, Kennedy, Hickson, Iles, Champoux.

CRIMINAL LAW-Professor Hon. C. P. DAVIDSON.

Clay, Burnet; Howard and Marler, equal; Elliott, Hickson, Iles, Kennedy, Champoux.

CIVIL PROCEDURE-Lecturer RYAN.

Iles, Olay, Elliott, Hickson, Champoux, Howard, Burnet, Marler, Kennedy. SECOND YEAR.

#### ROMAN LAW.

Lynch, Saunders, Thorneloe, McIver, Drolet, Décarie, Ives, Vipond, Ball.

d Eliza-

#### Prize of

enty-five

Dollars. ive Dol-

Walter Iliam S.

> )0. rship of

sh Col-

, B.A., , F. T.

lose of

#### CIV1L PROCEDURE.

Saunders, Lynch, Bercovitch, McIver, Décarie, Drolet, Carter, Thorneloe, Ives, McCabe, Barlow and Vipond, equal; Ball, Whelan and Baby, equal; Thomson.

#### SUCCESSIONS.

Saunders, Lynch and Carter, equal; Décarie, Ives, McIver, Vipond, Thorneloe and Drolet, equal; Ball and Bercovitch, equal; Robertson, McCabe, Baby and Whelan, equal; Barlow.

#### LEGAL HISTORY.

Saunders, Carter and Drolet, equal; Ives, McIver, Ball, Whelan and Décarie, equal; Lynch, McCabe and Barlow, equal; Thorneloe, Vipond, Baby, Bercovitch.

#### AGENCY AND PARTNERSHIP.

Saunders, Carter, Lynch, Décarie, Ives, McIver, Ball, McCabe, Vipond, and Robertson, equal; Thorneloe, Thomson, Baby, Whelan.

#### CONSTITUTIONAL.

Saunders, Mclvor, Ball, Lynch and Thorneloe, equal; Carter and Robertson, equal; Whelan, Ives, Vipond, Décarie, Barlow, equal; Baby, Thomson, McCabe, Bercovitch.

#### PRIVATE INTERNATIONAL LAW.

Saunders, Thorneloe, Lynch, Décarie and Vipond, equal; McIver, Ives, Carter and Drolet, equal; McCabe, Robertson, Barlow, Bercovitch, Ball.

#### MARRIAGE COVENANTS.

Lynch, Thorneloe, Saunders, Vipond, Whelan, McIver, Ives, Baby, Uarter, Drolet, Décarie, McCabe, Bercovitch, Barlow, Thomson, Robertson and Ball, equal.

#### CRIMINAL.

Lynch, Saunders, Drolet and Ives, equal; Thorneloe, McIver, Décarie, Ball, Carter, Vipond.

#### FIRST YEAR.

#### SUCCESSIONS.

Macalister; Archibald and Redpath, equal; Chauvin, Margolese; Baker; Macfarlane; Walsh and Trihey, equal; Kay; Enright; Garneau; Dobell; Burke.

#### PERSONS.

Macalister; Chauvin; Archibald; Walsh; Macfarlane; Kay, Dobell; Trihey; Baker and Enright, equal; Redpath; Burke.

#### OBLIGATIONS.

Macfarlane; Macalister; Chauvin and Archibald, equal; Redpath; Baker; Dobell; Enright; Burke and Mackay, equal; Margolese; Walsh; Garneau; Trihey, Kay, Sharswood. CONSTITU Ma r F ROMAN LA Mac E HISTORY ( Ar p8 lei REAL RIGE Arch equ bel

### CIVIL PROC Arch Wa

The HOLMES ( Medical C The FINAL PR BEATTIE, The CLEMESHA N'f'd. The McGILL N Montreal, The THIRD YE The SUTHERLA The GRADUATE awarded to Clinical Me The SECOND VI The SENIOR AN The FIRST YEA The JUNIOR A1

## CONSTITUTIONAL LAW.

Macalister; Chauvin; Macfarlane; Archibald; Baker; Dobell; Garneau; Margolese; Trihey; Redpath and Walsh, equal; Enright; Reeve; Mackay, Burke; Kay.

#### ROMAN LAW.

Macalister; Archibald; Chauvin; Macfarlane; Walsh; Redpath; Enright; Dobell.

### HISTORY OF LAW.

Archibald; Macalister; Macfarlane; Chauvin; Walsh; Kay; Redpath; Dobell; Baker; Trihey and Burke, equal; Enright, Margolese.

#### REAL RIGHTS.

Archibald ; Macfarlane ; Chauvin ; Macalister ; Enright and Baker, equal ; Margolese and Trihey, equal ; Walsh ; Kay, Redpath and Dobell, equal ; Burke ; Mackay.

#### CIVIL PROCEDURE.

Archibald ; Chauvin ; Macalister and Macfarlane, equal ; Enright and Walsh, equal ; Tribey ; Baker ; Margolese ; Dobell and Burke, equal.

## FACULTY OF MEDICINE.

### MEDALS AND PRIZES.

- The HOLMES GOLD MEDAL for highest aggregate in all subjects forming the Medical Curriculum, W. O. ROSE, of Lakeville, P.E.I.
- The FINAL PRIZEMAN for highest aggregate in Fourth Year Subjects, R. F. BEATTIE, of Economy, N.S.
- The CLEMESHA PRIZE for Clinical Therapeutics, C. A. PETERS of St. John's, N'f'd.
- The McGILL MEDICAL SOCIETY PRIZES, 1st Prize W. L. BARLOW, B.A., of Montreal, 2nd Prize W. A. DALPÉ, B.A., of Montreal.
- The THIRD YEAR PRIZEMAN, A. H. GORDON of St. John, N.B.
- The SUTHERLAND MEDALLIST, J. R. O'BRIEN, B.A., of Ottawa, Ont.
- The GRADUATES' SOCIETY OF BRITISH COLUMBIA PRIZE, was this year awarded to T. TURNBULL of Stratford, Ont. For best Examination in Clinical Medicine.
- The SECOND YEAR PRIZEMAN, E. R. SECORD of Brantford, Ont.
- The SENIOR ANATOMY PRIZE, E. R. SECORD of Brantford, Ont.
- The FIRST YEAR PRIZEMAN, J. BRUCE, B.A., of Moncton, N.B.
- The JUNIOR ANATOMY PRIZE, J. BRUCE, B.A., of Moncton, N.B.

Thorneloe, and Baby,

McIver,

helan and

Chorneloe,

, Vipond,

and Rob-, equal;

Iver, Ives, ercovitch,

es, Baby, Thomson,

Décarie,

ese ; Baht ; Gar-

Dobell :

Redpath ; argolese ;

## FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

296

#### PRIZES.

Veterinary Medicine and Surgery—W. B. Wallis. Cattle Pathology—W. B. Wallis. Pathology—W. B. Wallis. Materia Medica—W. B. Wallis and W. L. Bell, equal. Anatomy—James McGregor. Physiology—James McGregor. Chemistry—James McGregor. Botany—B. F. Humphries.

For the best general examination in all subjects, a silver medal, the gift of the Dean, won by W. B. Wallis.

Extra Prizes :-- For the best essay read before the Veterinary Medical Association--1st-J. W. Symes. 2nd--W. Lincoln Bell. 3rd--W. B. Wallis.

For the best essay read before the Society for the study of Comparative Physiology-1st-J. B. Hart. 2nd-L. A. Paquin.

Junior Class-E. W. Hammond.

## FACULTY OF ARTS.

#### GRADUATING CLASS.

B. A. Honours in Mathematics and Natural Philosophy. BROOKS, HARRIET.—First Rank Honours and Anne Molson Gold Medal.

#### B. A. Honours in Classics.

CARR, MURIEL B.—First Rank Honours and Chapman Gold Medal. MUNN, WALTER D.—First Rank Honours.

B. A. Honours in Geology, Mineralogy and Palcontology. DALGLEISH, ROBERT W.—First Rank Honours. McGREGOR, JAMES ALBERT.—Second Rank Honours.

#### B. A. Honours in Mental and Moral Philosophy.

PATERSON, ROBERT C.—First Rank Honours and Prince of Wales Gold Medal. PLACE, EDSON J.—First Rank Honours. BATES, GEORGE.—First Rank Honours. SHIP, MOSES L.—First Rank Honours. SEIFERT, ETHEL M.—First Rank Honours. CAMPBELL, J. A. E.—First Rank Honours. THOMPSON, JAMES R.—First Rank Honours. DUFF, ALEXI VINEBERG, A TURNER, HE2 SHAW, A. LO MACLEOD, HI

#### B. A.

HEINE, M. C BOUKKE-WRIG WALKER, LAI BISHOP, W. ( MACLAREN, 1

E Cameron, Fr. B.

MEYER, J. B .-

MCCLUNS, Ro Natur ROBERTSON, L Stand HENDERSON, EI Gradu HOLIDAY, ANNI ELLS, HUGH .-SCRIMGER, ANN sophy. MCLEOD, JOHN sophy. WAINWRIGHT, A Philosc POTTER, LUCY H BROWN, WALTER THOMPSON, JAME KEITH, HENRY J. Rank G LAURIE, ERNEST. Rank G MCGILL, WINNIFI PATCH, FRANK S. ture and the gift of

cal Associs. ative Phy-

y.

Medal.

#### 297

DUFF, ALEXANDER H.—First Rank Honours. VINEBERG, ABRAHAM.—Second Rank Honours. TURNER, HENRY H.—Second Rank Honours. SHAW, A. LOUISE.—Second Rank Honours. MacLEOD, HENRY S.—Second Rank Honours.

## B. A. Honours in English Language, Literature and History.

HEINE, M. CASEWELL.—First Rank Honours and Shakspere Gold Medal. BOUKKE-WRIGHT, KATHERINE.—First Rank Honours. WALKER, LAURA M.—First Rank Honours. BISHOP, W. GORDON. -First Rank Honours. MACLAREN, ARCHIBALD.—Second Rank Honours.

B. A. Honours in Modern Languages and History.

CAMERON, FRANCES .- First Rank Honours and Aberdeen Gold Medal.

B. A. Honours in Semitic Languages and Literature.

MEYER, J. 3 .- First Rank Honours.

#### THIRD YEAR.

- MCCLUNG, ROBERT K.-First Rank Honours and Prize in Mathematics and Natural Philosophy. First Rank General Standing.
- ROBERTSON, LEMUEL.-First Rank Honours in Classics. First Rank General Standing.
- HENDERSON, ERNEST.—First Rank Honours in Natural Science, Vancouver Graduates Society's Prize for Zoology.
- HOLIDAY, ANNIE.-First Rank Honours in Natural Science. Prize in French.

ELLS, HUGH .- First Rank Honours in Natural Science.

- SCRIMGER, ANNIE M.—First Rank Honours and Prize in Mental and Moral Philosophy. First Rank General Standing.
- MCLEOD, JOHN B.-First Rank Honours and Prize in Mental and Moral Philosophy.
- WAINWRIGHT, APNOLD.-First Rank Honours and Prize in Mental and Moral Philosophy.
- POTTER, LUCY E .- First Rank Honours in Mental and Moral Philosophy.
- BROWN, WALTER G .- First Rank Honours in Mental and Moral Philosophy.

THOMPSON, JAMES E .- First Rank Honours in Mental and Moral Philosophy.

- KEITH, HENRY J.—First Rank Honours in Mental and Moral Philosophy. First Rank General Standing.
- LAURIE, ERNEST.-First Rank Honours in Mental and Moral Philosophy. First Rank General Standing.

MCGILL, WINNIFRED .- First Rank Honours in Mental and Moral Philosophy.

PATCH, FKANK S.-First Rank Honours and Prize in English Language, Literature and History. FINLEY, KATHLEEN.-First Rank Honours in Modern Languages and History. Prize in French. Prize in German.

RICE, HORACE.—First Rank Honours in Semitic Languages and Literature. Prize in Hebrew.

REID, LENA MCK .- Second Rank Bonours in Natural Science.

RADFORD, JANET I.-Second Rank Honours in Natural Science.

MCDOUGALL, LOUISE.—Second Rank Honours in English Language, Literature and History.

HARDISTY, RICHARD.—Second Rank Honours in English Language, Literature and History.

JOHNSON, HELENA.—Third Rank Honours in Mathematics and Natural Philosophy. COTTON, CHARLES M.—First Rank General Standing.

BRUCE, GUY O. T .- First Rank General Standing.

#### THIRD YEAR.

#### PASSED THE SESSIONAL EXAMINATION.

McClung and Scrimger, equal; Cotton Bruce and Keith and Robertson, equal; Henderson and Laurie, equal; Brown and Holiday and McDonald and McLeod, equal; Ells and Thompson and Wainwright, equal; Johnson (H.); Cumming; Patch and Potter and Radford, equal; King; Mackay and Rice, equal; Finley; Brodie, McGill, Lundie, Holland and Reid, equal; Hardisty and McDougall, equal.

STUDENTS REGISTERED IN THE MEDICAL FACULTY.

#### Arranged alphabetically.

Dixon, Gardner, Goodall, Johnson, Larmonth, White.

#### SECOND YEAR.

FERGUSON, COLIN C.—(Prince of Wales College, P. E. I.). First Rank Honours and Prize in Mathematics; First Rank General Standing; Prize in Latin; Prize in Logic, Prize in German.

RADFORD, ALAN E.—(Abingdon School, Montreal). First Rank Honours and Prize in Mathematics; First Rank General Standing; Prize in History.

DEY, MARY HELENA.-(Simcoe H. S.). Second Rank Honours in Mathematics ; First Rank General Standing ; Prize in French.

SCOTT, G. W.-(Montreal H. S.). Second Rank Honours in Mathematics.

JOHNSON, J. GUY W.--(Montreal Coll. Inst.). Second Rank Honours in Mathematics.

NUTTER, J. APPLETON.—(Montreal, H. S.). First Rank General Standing; Prize in Greek; Prize in French; Prize in Botany.

WILLIS, SAMUI Stand GARLICK, EDY BROOKS, ELIZA MARCUSE, BELI COCHRANE, DO FORBES, WILFR

Class I.—Fergu Class II.—Forbu and El Weinfe

Class III.—Ron and Sev Macmill (s), Jenl ley (s).

s .- With sup

STERNS, EDGAR F Prize in Prize in rial Prize

WILLIAMS, J. MAN Mathema

McEwen, John R. First Rai

BROWN, EDWARD C Mathema

BARRINGTON, FRE Mathemat

MCNAUGHTON, Wu Mathemat

und History.

e, Literature terature and Philosophy.

tson, equal; Donald and ; Johnson ng; Mackay and Reid,

> k Honours ; Prize in

and Prize

hematics ;

CS.

in Mathe-

ng; Prize

### 299

WILLIS, SAMUEL J.-(Prince of Wales College, P. E. I.), First Rank General Standing; Prize in Latin.

GARLICK, EDYTHE,-First Rank General Standing.

BROOKS, ELIZABETH A .- (McGill Normal School). First Rank General Standing.

MARCUSE, BELLA.-(Montreal G. H. S.). Prize in Botany ; Prize in German.

COCHRANE, DONALD .- Prize in Chemistry.

FORBES, WILFRED .- Prize in German.

#### SECOND YEAR.

#### PASSED THE SESSIONAL EXAMINATION.

Class I .- Ferguson ; Nutter and Radford, equal ; Dey ; Willis, Garlick, Brooks.

- Class II.—Forbes; Cochrane and Cohen and Dixon and Marcuse, equal; Crowell and Elder, equal; Hardy and Jackson, equal; Smith; Johnson and Weinfeld, equal.
- Class 111.—Rorke and Rowell, equal; Ells and Scott (H.), equal; Scott (G.) and Sever, equal; Ainley and DeWitt and Walker (H.), equal; Cooke; Macmillan and Mackinnon, equal; Ritchie, Newson, Grier (s), Holman (s), Jenkins (s), Luttrell (s), Mitchell (s), Reford (s), Sangster (s), Woodley (s).

s.-With supplemental examination in one subject (arranged alphabetically.)

#### FIRST YEAR.

- STERNS, EDGAR H.—(Prince of Wales College, P.E.I.). First Rank Honours and Prize in Mathematics; First Rank General Standing; Prize in Greek; Prize in Latin; Prize in Chemistry; Prize in German. Coster Memorial Prize; Special Professor's Prize in Greek Composition.
- WILLIAMS, J. MANVILLE.—(Watford H. S.). First Rank Honours and Prize in Mathematics; First Rank General Standing; Prize in Hebrew.
- MCEWEN, JOHN R.—(Huntingdon Academy). First Rank Honours in Mathematics ; First Rank General Standing ; Prize in Latin ; Prize in French.
- BROWN, EDWARD O.-(Prince of Wales College, P.E.I.).-First Rank Honours in Mathematics; First Rank General Standing.
- BARRINGTON, FREDERICK H.--(Waterloo Academy). First Rank Honours in Mathematics; First Rank General Standing.
- MCNAUGHTON, WILLIAM J.--(Huntingdon Academy). First Rank Honours in Mathematics; First Rank General Standing.

LOCHEAD, A. W .- First Rank Honours in Mathematics.

- COPEMAN, JOSEPH H.--(Quebec H. S.). First Rank General Standing, Prize in English.
- WILLIAMS, HENRY S.-(Montreal H. S.), First Rank General Standing; Prize in Latin; Prize in French,

DICKSON, NORVAL.-(Huntingdon Academy). First Rank General Standing.

McLEOD, ANGUS B.-(Prince of Wales College, P.E.I.). First Rank General Standing.

## FIRST YEAR

#### PASSED THE SESSIONAL EXAMINATION.

Sterns, Williams (J. M.) and McEwen, equal; Williams (H. S.) and MacNaughton and Copeman, equal; Dickson; McLeod (A. B.) and Barrington, equal; Bennett and Lochead, equal; Tees and Strong, equal; Molson (Evelyn) and Cotton, equal; Harper; McDonald and Lindsay and Brown (A. D.), equal; Radford and Scott and McLean and Chipman, equal; Huxtable, Mitchell and McMurtry (S. O.), equal; Clogg and Neville and McMurtry (G. O.), equal; Anderson and Viner and Scrimger and McPherson, equal; Hickson; White (D. R.) and Molson (P.) and Moffatt, equal; Stephens, Noyes, Boulter, Ireland, Mowatt, Bourne (s), Brodie (s) Carruthers (s), Irving (s), Mount (s), Budden (E.) (s), Budden (J.) (s).

(s)-With supplemental examination in one subject (arranged alphabetically).

#### AWARD OF SCHOLARSHIPS, EXHIBITIONS AND CLASSING AT HIGHER ENTRANCE, SEPTEMBER, 1897.

#### I. THIRD YEAR.-SCHOLARSHIPS (tenable for two years.)

Mathematical Scholarship.—(a) McClung (Robt. K.). Natural Science Scholarship.—(a) Henderson (Ernest H.). Classical and Modern Language Scholarship.—(a) Robertson (Lemuel) and (a) Wainwright (Arnold), equal.

#### II. SECOND YEAR .- EXHIBITIONS, &c. (tenable for one year).

- (a) Nutter (J. Appleton), Montreal H. S.
  - (e) Dey. (M Helena), Simcoe H. S.
  - (d) Radford (E: Alan), Abingdon School, Montreal.
  - (f) Brooks (Elizabeth A.), McGill Normal School.
  - (g) Cochrane (Donald), Montreal H. S.

III. FIRST YEAR .- EXHIBITIONS, &c. (tenable for one year).

- (a) McEwen (Jno. R.), Huntingdon Academy.
- (a) Copeman (Joseph Hodge), Quebec H. S.

(b) Sterns (H. Edgar), Prince of Wales College, P.E.I.

(c) (g) (h) (i)

FIRST YEAR

Class I.-MacEv ton (W. Gi Tees (Fred.

Class II .- Nevil

Passed.-Kemp (

(a)	Annual	v
(b)	"	
(c)	"	
(d)	"	
(e)	66	
$(\mathcal{F})$	66	6
(g)	46	
(h)		4
( <i>i</i> )	"	1

B.A.—Crack (H. A THIRD YEAR.—McL SECOND YEAR.—Rei FIRST YEAR.—Dick:

SECOND YEAR.—Holl Ar FIRST YEAR.—Ainle (G. F

SES

B. A. ORDINARY.-Cl.

ng; Prize in

ag; Prize in tanding.

ank General

[acNaughton
gton, equal;
ion (Evelyn)
own (A. D.),
l; Huxtable,
id McMurtry
McPherson,
ffatt, equal;
Brodie (s)
J.) (s).

betically).

ING AT

on (Lemuel)

### 301

(c) MacNaughton (Wm. G.), Huntingdon Academy.

(g) Brown (Edwin O.), Prince of Wales College, P.E I.

(h) Dickson (Norval), Huntingdon Academy.
(i) Harper (Robt. J.), Montreal H.S.

FIRST YEAR.-Higher Entrance Examination

Class I.-MacEwen (Jno. R.), Copeman (Jos. H.), Sterns (H. Edgar), MacNaughton (W. Gilbert), Brown (Edwin O.), Dickson (Norval), Harper (Robt. J.), Tees (Fred. J.).

Class II .- Neville (James).

Passed .- Kemp (May D.), Brown (Albert V.), Evans (L. Thornton).

(a)	Annual	value	\$125-Founder, W. C. McDonald, Esq.
(b)	46	"	\$100-Founder, Major Hiram Mills.
(c)	44	44	\$ 90-Founder, Mrs. Jane Redpath.
(d)	"	66	\$125-Donor, Geo. Hague, Esq.
(e)	66	" "	\$120-Donor, Lord Strathcons and Mount Royal.
(4)	66	66	\$100-Donor, Lord Strathcona and Mount Royal.
(9)	46	44	\$62.50-Bursary, W. C. McDonald, Esq.
(h)		46	\$30-Sir Wm. Dawson Bursary ) given by New York
<i>(i)</i>	"	66	\$30- " " " Graduate Society)

### SUPPLEMENTAL EXAMINATIONS.

PASSED.

### September to Christmas, 1897.

(a) Supplemental Sessiona'.

B.A.—Crack (H. A.), Mocre (Wm.), Watson (Wm.) T. TRD YEAR.—McLeo (Hy. S.), Moore (Percy T.) SECOND YEAR.—Reid (Lena McK.) FIRST YEAR.—Dickson (W. Howard), Mitchell (Sydney.)

### (b) Supplemental in one Subject.

SECOND YEAR.-Holland, Munroe, Stewart (Donald), Reynolds (L. E. Maude), Armstrong (Cath rine).

FIRST YEAR.—Ainley, Horsfall, McCormick, Rowat, Walker (J. J.), Perley, Baker (G. P.), Charters.

### SESSIONAL EXAMINATIONS, 1898. McGILL COLLEGE.

### GREEK.

B. A. ORDINARY.—Class 1.—Munn, Carr, Cass II.—Tarlton, Grace. Class 111. —Worth, Gardner, Leney. THIRD YEAR.—Class I.—Robertson, Cotton. Class II.—Bruce, McLeod. Class, III.—Rice, Holland, Hurst, Potter.

SECOND YEAR.—Class 1.—Nutter (Prize), Ferguson, Willis, Radford (E.A.), Brooks, Forbes, Dixon (J. D.), Cochrane, Garlick, Crowell, Jackson and Woodley, equal. Class 11.—Rowell, Hill (2), Smith (L. A.); Elder and Cohen, equal; Scott (H. E.), Hardy, Sever, Ells; Ainley and Newson, equal; Mitchell (S.). Class 111.—Walker (H.), Johnson (J. G. W.), Ritchie; Cooke and Jeakins, equal; Mackinnon, Flint (2); DeWitt and Holman, equal; Weinfeld, Scott (G. W.), Lundie, Walker (J. J.), Sangster, Tatley, Grier, Reford, Macmillan, Laverie (1), MacRae (1).

(2) Stanstead College. (1) Morrin College.

FIRST YEAR.—Class I.—Sterns(Prize), McEwen, Dickson, Macnaughton, Copeman, Williams (H. S.), Barrington, Lochead, Brown (E. O.), Harper, Strong, Williams (J. M.). Class II.—Brown (A V.), McLeod (A. B.), Page (2), Cotton, McDonald, Clogg, Chipman, Scott, Lindsay, Viner, Mount, Neville, McLean, Tees. Class III.—Dobson (2), Hickson, McPherson, Mitchell, Radtord (I.), McMurtry (G. O.), Moffat; Day and Carruthers, equal; McMurtry (S. O.), Noyes; Scrimger and White (D. R.), equal; Mowatt, Bourne, Molson, Brodie,\* Parker\*; Anderson and Fuller (3) and Irving and Ireland.

\* Partial Students. (1) Morrin College. (2) Stanstead College Students. (3) St. Francis College.

### LATIN.

- B. A. ORDINARY.—Class I. —Carr, Munn, Pearson, Tarlton. Class II.—Steen, Leney, Worth. Class III.—Ross, Gardner, Jordan, Gilday, Reynolds, Colby, Dover and Todd, equal; Stephens.
- THIRD YEAR.—Class 1.—Robertson, Bruce, Scrimger, Potter, Cotton. Class 11.
   -Cumming, Goodall, Ells, Thompson. Class 111.—McGill, Lundie, Dixon, Radford, King, Johnson (H.), Johnson (R. de L.), Hurst, Brodie, McDougall, Finley, Reid.
- SECOND YEAR—Class I.—Ferguson (Prize) and Willis (Prize), equal; Dey, Radford Nutter Forbes, Smith (L.), Garlick, Brooks, Cochrane, Jackson. Class II.— Marcuse, Dixon, Cohen, Scott (H. E.); Crowell and Elder, equal; Mitchell (S.) and Woodley, equal; Rørke and Weinfeld, equal. Class III.—MacRae (1), Fyles (1); Cooke, Ells and Hill (2) and Newson, equal; DeWitt and Hardy and Rowell, equal; Scott (G. W.), Walker (H.), Macmillan; Holman and Mackinnon, equal; Johnson, Ritchie, Sever, Luttrell, Sangster, Ainley, Laverie (1), Flint Roy (2), Flint Mary (2).

(1) Morrin College. (2) Stanstead College.

FIRST YEAR.-(Pri: naug Chip Benr equa Mour (E.), equa Moffa Fee Murt Brodi

(2) Stanstea

B.A. ORDINAR Ship, Wrigh Blythe phens and D Steen, equal; equal; (G.), THIRD YEAR.—( Cotton Rice an and Ho WaCiii

McGill gall. Heeney Prize for Honou

SECOND YEAR (

cuse, C Macmill Davies Ainley Crack'a Jeakins feld, Sa equal; 1 chell, Bu Luttrell, equal. Leod. Class,

E.A.), Brooks, in and Wooder and Cohen, wwsen, equal; W.), Ritchie; and Holman, .), Sangster,

> on, Copeman, rper, Strong, 3.), Page (2), 'iner, Mount, McPherson, I Carruthers, . R.), equal; d Fuller (3)

lents. (3) St.

II.-Steen, 7, Reynolds,

. Class II. Fill, Lundie, urst, Brodie,

)ey, Radford . Class II. nal; Mitchell (I.—MacRae nal; DeWitt Macmillan; er, Luttrell, 303

FIRST YEAR.—Class I.—McEwen (Prize), and Williams (H. S.) (Prize) and Sterns, (Prize), equal; Dickson; Barrington and Brown (E. O.), equal; Macnaughton, Copeman; Harper Lochead, McDonald, Williams (J. M.), Chipman. Class II.—Brown (A. V.) and Huxtable and Lindsay, equal; Bennet; Strong and Tees, equal; McPherson and Mitchell and McLean, equal; McLeod and Cotton, equal; Radford (I.); Budden (J. M.) and Mount, equal; Viner; Hickson and Stephens, equal; Scott, Molson (E.), Fuller (3), Clogg, Budden (E.M.) Class III.—Mowatt and White, equal; McLurtry (S. O.), Bourne, Dobson (2), Neville; Carruthers and Moffatt and Boulter, equal; Scrimger; Molson (P.) and Ascah and Fee (3), equal; Cole; Irving and Price. equal; Porter,\* Day; Mc-Murtry (G. O.) and Noyes, equal; Cross (3) Ireland; Anderson and Brodie.\*

(2) Stanstead College. (3) St. Francis College. \* Partial Students

### MENTAL AND MORAL PHILOSOPHY.

- B.A. ORDINARY (Moral Philosophy).—Class I.—Grace; Paterson and Seifert and Ship, equal; Place, Bates, Reynolds, Pearson, Vineberg; Bourke-Wright and Gardner and Heine, equal; Duff and Prudham, equal; Blythe; Shaw and Turner (H. H.), equal; Campbell (J. A. E.) and Stephens and Thompson, equal; Ross, MacLeo J, Tarlton. Class II.—Cairns, and Dover and Meyer and Stuart, equal; Gilday, Jordan, Moore, Steen, Turner (W. D.); Cameron (A. G.) and Runnells and Thomas, equal; Anderson and Todd, equal; Worth, Colby; Down and Leney, equal; Bishop and Walker, equal. Class III.—Halpenny, McGregor (G.), Mick, Bartlett, Williamson, Campbell (J. D.), Maclaren.
- THIRD YEAR.—(Mental Philosophy).—Class 1.—Potter and Scrimger, equal; Cotton, Munroe, Bruce; Holiday and McClung, equal; Wainwright; Rice and Thompson, equal; Brown; Laurie and MacLeod, equal; Cairns and Holland and Reynolds, equal. Class II.—Keith and Lundie and McGill, equal; Brodie and McDonald, equal; White, Bartlett, McDougall. Class III.—Down and Reid, equal; Henderson; Angell and Heeney, equal; Armstrong, Cumming, Oke, Harding.

Prize for Honour Work .- McLeod and Scrimger and Wainwright, equal.

SECOND YEAR (Logic).—Class I.—Ferguson, Nutter, Willis, Sever Forbes, Marcuse, Cohen, Garlick, Elder, Dey, Jackson, Hardy. Class II.—Dewitt; Macmillan and McGregor, equal; Crowell, Masson, Cooke; Brooks and Davies and Radford, equal; Rorke, Scott (G. W.), Woodley, Rowell; Ainley and Scott (H. E.) and Secord, equal; Rowat; Cochrane and Crack and Dixon and Evans and Newson and Walker (H.), equal; Jeakins and Powell, equal. Class III.—Johnson (C.), Smith, Weinfeld, Sangster, Hicks; Ells and Holman and Morrow and Ritchie, equal; MacInnes, Grier; Lundie and Perley, equal; Mackinnon, Mitchell, Burke, Reford, Tippett, Charters; Greig and Horsfall, equal; Luttrell, Howden, Crabb, Wiggins; Ireland and McCormick and Mick, equal.

### 304

### ENGLISH LITERATURE.

B.A. ORDINARY .- Class 1 .- Thomas, Bourke-Wright, Heine, Todd, Pearson and Walker, equal. Class 11 .- Gilday, Bishop, Jordan and Dalgleish and Frudham, equal; Gardner, Brooks, Bates and Grace, equal; Duff and Maclaren and Ross, equal. Class III .- Stephens, Leney and McLeod and Reynolds, equal; Worth, Tarlton, Stuart, McConnell, Steen, Moore.

### ENGLISH LITERATURE AND RHETORIC.

THIRD YEAR .- Class 1 .- Patch and Wainwright, equal. Class II .- Hurst and Keith, equal; Bruce, Holland, McDougall, McLeod, Ells and Munroe equal. Class III .- Duguid, Heeney, Hardisty; \*Harding, Reynolds.

### MODERN HISTORY.

SECOND YEAR .- Class 1 .- Radford (Prize); Dewitt and Marcuse and Nutter, equal: Forbes, Ferguson, Horsfall, Topley, Dey and Luttrell, equal: Mitchell and Woodley, equal; Rorke, Cohen, Macmillan, Reford; Ells and Weinfeld, equal; Hardy, Mackinnon. Class 11 .-Brooks and Johnson equal; Lundie and Willis, equal; Dixon and MacInnes, equal; Cochrane and Jeakins, equal; Jackson, Garlick; Scott (G.) and Secord, equal; Crowell and Elder and Grier and Walker, equal; Ainley and Cooke and Ritchie, equal; Smith. Class III .-Charters, Newson and Rowell and Sever, equal; Scott (H.), Mac-Cormick, Rowat, Holman, Davies, Harding, McGregor; Crack and Ireland, equal; Burke, Greig, Howden, Johnston.

### ENGLISH LITERATURE.

- FIRST YEAR.-Class 1.-Copeman, Carruthers, Lochead, Sterns, Blythe, Munroe, Scott, Williams (J. M.), Lindsay, Williams (H. S.), MacLeod (A. B.); Chipman and MacNaughton, equal. Class II .- Edgar, Mc-Ewen; Bennett and Moffatt, equal; Ireland, Molson (P.) and Tees, equal; Brown (A.V.) and Day and Radford, equal; Irving, Scrimger Molson (E.), Greenaway, Dickson, McDonald, Mount, Huxtable, Strong, McPherson, McMurtry (G. O.), White, Carden, Clogg, Budden (J. M.). Class III .- Mitchell, Mulholland, Harper, Cole, Viner, Hickson, Parker, Boulter, Barrington, McMurtry (S. O.), Noyes, McLean, Budden (E. M.), Anderson, Cotton, Mowat, Swinton, Kingsley, Stephens, Boyd, Ness, Neville, McLeod (M.), Penhallow, Mathieson, Mosgrove.

### MECHANICS.

B. A. ORDINARY .-- Class I .- Turner (H. H.); Dover and Gardner and Reynolds and Tarlton and Turner (W. D.), equal. Class II .- Jordan and Leney and Prudham and Thomas and Todd, equal; Gilday and Grace and McGregor and Pearson and Steen, equal .- Class III .- Stuart; Colby and Moore, equal.

THIRD YEAR .- Class I .- McClung; Bruce and Cotton and Gardner and Keith

and 1 son, and L.) at and J

B. A. ORDINA Class Thoma THIRD YEAR.-Johnso Lundie Heeney

B. A. ORDINARY.

THIRD YEAR.-C Class II

B. A. ORDINARY .-

THIRD YEAR. - Cl

SECOND YEAR .- ( Ferguson and Dixo Ainley ar Scott (H. Jackson a (G. W.) Ireland an Dewitt an and Reform FIRST YEAR.-Cla. equal; Bi Naughton equal. C. (A. V.) an and Loche Harper and Molson (P. and McLean

Budden (E.

Noves and Irving and . earson and gleish and ; Duff and id McLeod een, Moore.

> Hurst and nd Munroe ynolds.

and Nut-Luttrell, Iacmillan. Iass II.— Dixon and Garlick; d Walker, Iss III.— I.), Mac-Crack and

> Blythe, MacLeod dgar, Mcnd Tees, Scrimger e, Strong, 1 (J. M.). 1, Parker, 1 (E. M.), 19d, Ness,

> > Reynolds ad Leney race and t; Colby

nd Keith

### 305

and McLeod and Robertson and White, equal; MacDonald and Thompson, equal. Class II — Brown and Cumming and Henderson and Laurie and Wainwright, equal; Holiday and Johnson (H) and Johnson (R. de L.) and King and Patch, equal: Class III.—Armstrong and Hardisty and Mackay and Potter, equal; Brodie and Larmonth and Lundie, equal >

### ASTRONOMY AND OPTICS.

B. A. ORDINARY.—Class I.—Thompson, Class II.—Gardner; Turner (W. D.). Class III.—Leney and Prudhum, equil; Stuart and Tarlton and Thomas, equal; Moore.

THIRD YEAR.—*Class I.*—Cumming and Keith and McClung, equal; Cotton and Johnson (H.), equal. *Class II.*—Armstrong and Bruce and Laurie and Lundie and Patch, equal; Brown and Thompson, equal. *Class III.*— Heeney and MacKay and Wainwright, equal; Hardisty; Duguid.

### EXPERIMENTAL PHYSICS.

B. A. ORDINARY.-Class I.-Brooks, (H.)

THIRD YEAR.—Class I.—McClung. Class II.—McDonald and Mackay, equal. Class III.—Johnson (H.)

LABORATORY COURSE.

B. A. ORDINARY.-Class. I.-Brooks (H.)

THIRD YEAR. - Class I. - Johnson and McClung and McDonald, equal.

### GEOMETRY AND ARITHMETIC.

- SECOND YEAR.—Class 1.—Crowell and Nutter, equal; Brooks and Elder and Ferguson and Hardy and Johnson and Radford, equal; Cohen and Dey and Dixon and Hol man and Smith (L.) and Willis, equal; Class 11.— Ainley and Cochrane and Ells and Garlick and Grier and Rowell and Scott (H. E.) and Walker (H.), equal; Charters and Cook and Crack and Jackson and Mackinnon and Mitchell and Rorke and Rowatt and Scott (G. W.) and Weinfeld and Woodley, equal. Class 111.—Davies and Ireland and McCormack and McGregor and Sangster and Sever, equal; Dewitt and Dorion and Forbes and Macmillan and Marcuse and Newson and Reford and Ritchie, equal; Jeakins and Luttrell and Perley, equal.
- FIRST YEAR.—Class I.—Sterns; McEwan and McLeod and Williams (J. M.), equal; Brown (E. O.) and Dickson and McMurtry (S. O.) and McNaughton and Molson (E.), Parker and Strong and Williams (H. S.) equal. Class II.—Anderson and Barrington and Bennett and Brown (A. V.) and Copeman and Cotton and McMurtry (G. O.) and Nevilie and Lochead and Price and Scrimger and Tees, equal; Carden and Harper and Hickson and Huxtable and Mathieson and McDonald and Molson (P.) and Scott, equal. Class III.—Ascah and Brodie and Clogg and McLean, Mitchell and Moffat and Radford, Viner and White, equal; Budden (E.), Chipman and Cole and Lindsay and McPherson and Noyes and Stephens, equal; 5Boulter, Bourne, Carruthers, Ireland and Irving and McLeod and Mount and Mowatt and Penhallow.

### 306

### TRIGONOMETRY AND ALGEBRA.

- SECOND YEAR.—*Class I.*—Ferguson and Radford, equal; Brooks and Johnson and Willis, equal. *Class II.*—Scott (G. W.) and Smith (L.) and Weinfield, equal; Dingley and Cochrane and Cohen and Crowell and Davies and Dey and Dixon and Elder and Garlick and Nutter and Rowell, equal. *Class III.*—Ells and Hardy and Holman and Jackson and Mackinnon and Lundie and Rorke and Sangster and Scott (H. E.) and Sever and Walker (H.), equal; Crack and Dewitt and Forbes and Grier and Macmillan and Reford and Ritchie and Rowat, equal; Cooke and Howden and Jeakins and Luttrell and MacGregor Marcuse and Newson and Perley, equal.
- FIRST YEAR.—Class I.—Barrington and Sterns and Williams (J. M.), equal; Bennett and Copeman and Cotton and Dickson and McEwen, equal; Anderson and MacNaughton, equal. Class II.—Brown (E. O.) and Mc-Donald and McLeod and McMurtry (G. O.) and Molson (E.) and Neville and Strong and Tees and Williams (H. S.), equal; Boulter and Clogg and Harper and Lochead and McLean and McMurtry (S. O.) and Mc-Pherson and Molson (P.), equal. Class III.—Ascah, Brodie and Chipman and Hickson and Huxtable and Ireland and Mathieson and Mitchell and Moffatt and Ness and Noyes and Price and Radford and Scrimger and Viner and White (R. D.), equal; Budden (J.) and Carden and Lindsay and Parker and Scott and Stephens, equal; Boyd and Brown (A. V.) and Mowat, equal.

### HONOURS IN MATHEMATICS AND NATURAL PHILOSOPHY.

- B. A. HONOURS.-Brooks (Harriet), First Kank Honours and Molson Gold Medal.
- THIRD YEAR.—First Rank Honours.—McClung (Prize). Third Rank Honours. Johnson (H.).
- SECOND YEAR.—First Rank Honours.—Ferguson and Radford (E. A.), equal, (Prizes). Second Rank Honours.—Dey, Scott (G. W., Johnson (J. G. W.)
- FIRST YEAR.—First Rank Honours.—Sterns (Prize), Williams (Prize), Brown and McEwen, equal; Barrington, MacNaughton and Lochead.

### FRENCH.

- B.A. ORDINARY.—Class I.—Ship; Cameron and Place and Seifert, equal. Class II.—Leney; Pearson and Reynolds, and Shaw and Steen and Vineberg. equal. Class III.—Todd; Gilday and Jordan and McConnelland Dover, equal.
- **THIRD YEAR.**—Class I.—Finley and Goodall and Holiday, equal. Class II.— Brodie and Duguid, equal. Class III.—Cumming and Dixon and Larmonth and Gardner and Hardisty, equal.

and Dixe and Broc and E.) 8 son s equal FIRST YEAR .-Class MacN (Evel (Jessi Scott and C McPhe Brodie and N

SECOND YEA

B.A. ORDINARY.

THIRD YEAR.-( Roberts

SECOND YEAR.- field, Ha

FIRST YEAR.-Cl Class II.

FIRST YEAR.-Do equal; B

Class III.-Boulte

B. A. ORDINARY. -

THIRD YEAR. - Clas

SECOND YEAR.-Cla Class 111.-(A. W.), Ir nd Johnson and Weinrowell and Nutter and nd Jackson cott (H. E.) Forbes and ual; Cooke larcuse and

> M.), equal; ven, equal; O.) and Mcand Neville and Clogg O.) and Mcnd Chipman Mitchell and crimger and and Lindsay own (A. V.)

> > Iolson Gold

ak Honours.

A.), equal, Johnson (J.

, Brown and

qual. Class nd Vineberg, 11 and Dover,

Class II.xon and Lar307

SECOND YEAR.—Class I.—Nutter; Dey and Radford, equal. Class II.—Garlick and Marcuse and Mitchell and Ritchie and Weinfeld, equal; Cohen and Dixon and Elder and Johnson and McCormick and Reford and Rowatt and Rowell and Scott (Geo.W.) and Sever and Willis, equal. Class III.—Brooks and Cochrane and Cooke and Crowell and DeWitt and Howden and Lundie and McMillan and McKinnon and Sangster and Scott (H) E.) and Walker (H. J.), equal; Ainley and Davies and Grier and Jackson and Luttrell and Newson and Rorke and Smith (L. A.) and Tatley. equal; Burke and Charters and Crack and McGregor and Perley, equal

FIRST YEAR.—Class I.—McEwen and Radford and Williams (H. S.), equal. Class II.—Bennet; Copeman and Dickson and McMurtry (Sh. O.) and MacNaughton and Noyse and Tees, equal; McMurtry (G.); Molson (Evelyn) and Stephens, equal. Class III.—Barrington and Budden (Jessie) and Cardin and Cole and Cotton and Harper and Neville and Scott (W. J.) and Scrimger and Strong, equal; Budden (Ellen); Boulter and Chipman and Clogg and Huxtable and Ireland and MacDonald and McPherson and Moffat and Viner and White (D. R.), equal; Archibald; Brodie and Day and Hickson and McLeod and Molson (P.) and Mowatt and Ness and Parker and Penhallow, equal.

### GERMAN.

B.A. ORDINARY .- Class I.-Cameron, Colby. Class II.-Grace.

- THIRD YEAR.—Class I.—Finley (Prize), Scrimger. Class 11.—Radford, McGill, Robertson, King. Class III.—Reid.
- SECOND YEAR.—Class I.—Ferguson (Prize), Forbes (Prize). Class II.—Weinfield, Hardy.
- SECOND YEAR.—Donalda Dept.—Class I.—Marcuse (Prize), Dey. Class II.— Rorke, Browne.\* Cla. III.—de Courtenay.\*
- FIRST YEAR.—Class I.—Sterns (Prize); Mitchell, Brown. Class II.—Lochead. Class III.—Scott, Copeman, Edgar.
- FIRST YEAR.—Donalda Dept. Class II. Bennett'; Molson and Huxtable, equal; Budden (J.), Radford. Class III.—Budden (E).

### ARTS AND MEDICINE.

Class III .- Boulter, Stephens.

### HEBREW.

B. A. ORDINARY. - Cluss I.-Meyer, Turner (W. D.) and Prudham, equal.

THIRD YEAR.-Class I.-Rice (Prize), Brown (W. G.), MacKay (H.)

SECOND YEAR.—Class II. –Williams (W. J.), Jeakins, Woodley, Anderson (T. J. Class III.—Halpenny (E. W.), Campbell (J. D.), Cameron, Williamson (A. W.), Ireland A.), Thom, Horsfall, Runnells.

FIRST YEAR.—Class I.—Williams (J. M.), (Prize), McLeod (A. B.), Greenaway, Munroe (Wm.), Tanner, Brown (A. V), Lindsay and Down, equal. Class II.—Lapointe, MacLean (K.), Mathieson, Cairns, Mount, Irving, Anderson (R. G.) Class III.—Greig (J. G.), Carruthers and Brown, equal; Ascah and Angell, equal.

### GEOLOGY.

BA. ORDINARY.—Class I.—Dalgleish, McGregor (J. A.), Leney. Class II.— Grace; Gardner and Gilday, equal; Colby; Stuart and Jordan, equal; Campbell (J. A. E.), Thomas; Dover and Williams (W. J.), equal; Todd and Reynolds, equal; Tarlton; Worth and Halpenny and Anderson, equal; Pearson, Turner (W. D.). Class III.—Campbell (J. D.), Steen, Ross (A. B.); Cameron and Moore (P.), equal; McGregor (G.) and Runnells, equal; Mick.

### CLASS LIST IN ZOOLOGY.

Class 1.—Henderson (Vancouver Graduates' Prize), Laurie, Monroe. Class 11. —Brodie, Holiday; Radford and Reid, equal; Ells, King. Class 111.— Rice, Patch, Lundie, Reynolds, McGill, Holland, Finley; and McDougal equal · Hurst.

### BOTANY.

SECOND YEAR.—Class II.—Marcuse (Prize), Nutter (Prize) Reford, Jackson, Garlick, Woodley, Hardy, Lundie. Class II.—Elder, Sever, Forbes, Smith, DeWitt; Davies and \*Secord, equal; Cohen and McGregor, equal; Rowell. Class III.—Brooks, Rorke; Willis and Topley\*, equal; Ainley, Scott and Holman, equal; Mitchell; Jeakins and Newson, equal; Ells and Macmillan and Sangster, equal; Crack and Grier, equal; Mackinnon, Rowatt, Greig\*; Cooke and Ireland, equal; Cochrane and Horsfall and Luttrell, equal.

THIRD YEAR.-Class 1.-Scrimger, Henderson, Ells, King, Radford.

B.A. ORDINARY - Class I. - Paterson, \*Going. Class II. - Radford, Dover, Colby.

### CHEMISTRY.

FIRST YEAR. (Optional.)-Class I.-Steins. Class 11.-None. Class 111.-Angell and Halpenny, equal; Tees, Green away, Down.

SECOND YEAR. (Optional).-Class 1.-Cochrane.

### PHYSICAL CULTURE.

BLACKETT, J. W., B.A., (4th year Medicine), Wicksteed Silver Medal. McLEAN, T. A., (4th year Applied Science), Hon. Mention. ARCHIBALD, E. M., (3rd year Applied Science), Wicksteed Bronze Medal.

PHYSICAL CULTURE-DONALDA DEPARTMENT.

LOUISE SHAW, (4th year), Prize. WINIFRED McGILL, (3rd year), Prize. MECHANICS.--ASTRONOMY A MENTAL PHIL

GREEK.-Cla

LATIN.-Class

TRIGONOMETRY ters,

GEOMETRY AN Pidge

Logic.-Class equal.

Modern Histor Laveri

FRENCH. - Class ney, eq

GERMAN.—Class DuPles

HEBREW. -Class

GEOMETRY AND . and Smi

TRIGONOMETRY A. Nicholso

S

GREEK.—Class 11 LATIN.—Class 11 TRIGONOMETRY ANI GEOMETRY AND ARI Greenaway, equal. Class 1g, Anderson equal; Ascah

Class II. ordan, equal; equal; Todd d Anderson, . D.), Steen, G.) and Run-

Class II. Class III. d McDougal

d, Jackson, ver, Forbes, egor, equal; ual; Ainley, son, equal; rier, equal; chrane and

er, Colby.

lass 111.-

309

### MORRIN COLLEGE.

### THIRD YEAR.

MECHANICS .- Class I.-Seifert. Class 111.- Walters.

ASTRONOMY AND OPTICS .- Class II .- Seifert. Class III .- Jackson.

MENTAL PHILOSOPHY.-Class II.-Seifert. Class III.-Jackson.

### INTERMEDIATE EXAMINATION.

GREEK.-Class III.-Laverie and MacRae, equal.

LATIN.-Class III.-Fyles and MacRae, equal ; Laverie.

TRIGONOMETRY AND ALGEBRA.—Class II.—Fyles; Pidgeon and Rothney and Walters, equal. Class III.—MacRae and Ritchie, equal; Laverie.

- GEOMETRY AND ARITHMETIC.—*Class I.*—Rothney, Walters. *Class II.*—Fyles and Pidgeon and Ritchie, equal. *Class III.*—MacRae.
- Logic.-Class III.-Fyles, Rothney, MacRae, Ritchie; Laverie and Pidgeon, equal.
- MODERN HISTORY.—Class I.—MacRae. Class II.—Pidgeon, Ritchie. Class III.— Laverie and Rothney, equal; Fyles.
- FRENCH.—Class I.—Webster. Class II.—Fyles; Bignell and Ritchie and Rothney, equal.
- GERMAN.—Class I.—Webster and Bonham, equal; Fry, Fyles, Hunter, Meiklejohn, DuPlessis. Class II.—Walters.
- HEBREW Class I.- Laverie. Class II. Pidgeon.

### FIRST YEAR.

- GEOMETRY AND ARITHMETIC.—Class I.—Reid. Class II.—Fraser and Nicholson and Smith, equal; Fanjoy.
- TRIGONOMETRY AND ALGEBRA.—Class I.—Reid. Class II.—Fanjoy and Fraser and Nicholson and Smith, equal.

### STANSTEAD WESLEYAN COLLEGE.

### INTERMEDIATE EXAMINATION.

### Medal.

LATIN .-- Class III .- Hill; Flint (M.) and Flint, R.), equal.

GREEK .- Class 11 .- Hill. Class III .- Flint.

TRIGONOMETRY AND ALGEBRA. - Class II. - Hill, Flint (M.). Class III. - Flint (R.) GEOMETRY AND ARITHMETIC. - Class I. - Hill, Flint (M.) Class II. - Flint (R.) LOGIC.—Class II.—Flint (M.) and Hill, equal. Class III.—Flint (R.) MODERN HISTORY.—Class I.—Hill. Class II.—Flint (M.), Flint (R.) FRENCH.—Class II.—Flint (M.) and Hill, equal. Class III.—Flint (R.) GERMAN.—Class I.—Flint.

PASSED THE INTERMEDIATE EXAMINATION.

Class II.—Hill, Flint (M.) Class III.—Flint (R.)

### FIRST YEAR.

GREEK.--Class II.--Page, Dobson. LATIN.--Class II.--Page. Class III.--Dobson. GEOMETRY AND ARITHMETIC.--Class II.--Page, Dobson. TRIGONOMETRY AND ALGEBRA.--Class I.--Page. Class II.--Dobson. ENGLISH.--Class II.--Page, Dobson. FRENCH.--Class I.--Page. GERMAN.--Class I.--Page.

PASSED THE SESSIONAL EXAMINATION.

Class I.-Page.

### ST. FRANCIS COLLEGE.

### FIRST YEAR.

LATIN.-Class II.-Fuller. Class III.-Fee, Cross.

GREEK.-Class III.-Fuller.

GEOMETRY AND ARITHMETIC .- Class I.-Fuller. Class III .- Fee, Killock.

TRIGONOMETRY AND ALGEBRA. - Class II.-Killock. Class III.-Cross and Fuller, equal.

ENGLISH.—*Class III.*—Fuller, Fee and Cross, equal ; Killock. FRENCH.—Fee and Fuller, equal ; Killock.

PASSED THE SESSIONAL EXAMINATION. Class 111.-Fuller.

AINLEY, CH ANDERSON. W Lab ANGEL, FREI Hon Engi ATKINSON, D. BUTLER, PER drau CAPE, EDMU! Hydr Labo DAVIS, ANGUS draul EAVES, EDMUN IRVING, THOMA draul LAURIE, ALBER Desig MACLEAN, THO and H MACLENNAN, FI MACPHAIL, WIL Labora MATHESON, ERN MCCARTHY, GE Associa Hydrau Hydrau MCRAE, JOHN B atory. SCOTT, ARTHUR Chemis SHEFFIELD, CHAI and Hyd SYMMES, HOWAR THOMAS," LEONAR WATEROUS, CHAR

### FACULTY OF APPLIED SCIENCE.

### GRADUATING CLASS, 1897 98.

AINLEY, CHARLES NEWTH .- Honours in Assaying.

- ANDERSON, WILLIAM BEAUMONT. Honours in Hydraulic Laboratory, and Geodetic Laboratory.
- ANGEL, FREDERICK WILLIAM.—British Association Medal and Prize in Books; Honours in Dynamics of Machinery, Machine Design, Mechanical Engineering, Designing, Mechanical Laboratory and Thermodynamics.

ATEINSON, DONALD CAMERON THOMSON .- Honours in Assaying.

- BUTLER, PERCY.-Prize for Summer Work; Honours in Designing and Hydraulics.
- CAPE, EDMUND GRAVES.—British Association Exhibition; Special Prize in Hydraulics; Honours in Experimental Physics, Hydraulics, Hydraulic Laboratory and Dynamics of Machinery.
- DAVIS, ANGUS WARD.—Honours in Geology, Mineralogy, Metallurgy and Hydraulic Laboratory.

EAVES, EDMUND.-Honours in Electrical Laboratory and Experimental Physics.

- IRVING, THOMAS TWEEDY. -Honours in Geodesy, Geodetic Laboratory and Hydraulic Laboratory.
- LAURIE, ALBERT.—Prize for Summer Work; Honours in Machine Design, Designing, Thermodynamics and Mechanical Engineering.
- MACLEAN, THOMAS ARCHIBALD.—Prize for Summer Work; Honours in Assaying and Hydraulic Laboratory, Hon. Mention in Wicksteed Competition.

MACLENNAN, FRANK WILLIAM .- Honours in Experimental Physics and Designing.

MACPHAIL, WILLIAM MATHESON.—Honours in Geodetic Laboratory and Hydraulic Laboratory.

MATHESON, ERNEST GEORGE .- Honours in Testing Laboratory Work.

- MCCARTHY, GEORGE ARNOLD.—British Association Medal and Prize; British Association Exhibition; Prize for Summer Work; Special Prize in Hydraulics; Honours in Geodesy, Geodetic Laboratory, Hydraulics, Hydraulic Laboratory, Theory of Structures and Designing.
- MCRAE, JOHN BELL.-Prize for Summer Work ; Honours in Hydraulic Laboratory.

SCOTT, ARTHUR PUTNAM.—British Association Medal and Prize; Honour in Chemistry and Metallurgy.

SHEFFIELD, CHARLES.—Honours in Experimental Physics, Electrical Laboratory and Hydraulic Laboratory.

SYMMES, HOWARD CHURCH, B.A.Sc.—Honours in Experimental Physics. THOMAS, "LEONARD EDWARD LAWSON.—Honours in Designing.

WATEROUS, CHARLES ALEXANDER .- Honours in Mechanical Laboratory.

and Fuller,

ς.

311

### THIRD YEAR.

312

Archibald, Ernest M .- Prize for Summer Work ; Wicksteed Bronze Medal.

Colpitts, Walter W.—Prize for Summer Work; 1st McCarthy Prize for Surveying Fieldwork; Prizes for Theory of Structures, Mapping and Graphical Statics.

Grier, Arthur G .- Prizes for Mathematics and Machine Design.

Hutchinson, William S .- Prize for Organic Chemistry.

Kirkpatrick, Stafford F.-Prizes for Surveying, Metallurgy and Ore Dressing. McLean, William B.-Scott Exhibition; British Columbia McGill Graduate So-

ciety's Prize for Descriptive Geometry; Prize for Dynamics of Machinery. McLeod, Norman M.—2nd McCarthy Prize for Surveying Fieldwork. Peden, Frank.—Prize for Summer Work. Shaw, John A.—Prize for Physics. Wilson, Robert M.—Prize for Summer Work.

William W. D' for Summer Work.

Young, William M .- Prize for Mechanical Drawing.

### Passed the Primary Examinations.

### (In Order of Merit).

### ARCHITECTURE.

Hyde, George T., Montreal. McLeod, Norman M., Montreal \*Peden, Frank, Montreal

### CIVIL ENGINEERING.

Colpitts, Walter W., Moncton, N.B. Fraser, C. E., Montreal. Gagnon, Louis F., Westmount, Que. \*Gough, Richard T., Halifax, N.S. \*Bachand, George A., Montreal.

### ELECTRICAL ENGINEERING.

McLean, William B., Pictou, N.S. Grier, Arthur G., Montreal. Shaw, John A., Montreal. Denis, Leopold, Montreal. Archibald, E. M., Halifax, N.S. Fraser, James W., Bridgeville, N.S. Wilson, Kobert M., Montreal. Burgess, R. Earl, Wolfeville, N.S. \*Fetherstonhaugh, Edward P., Montreal. Hyde, James C., Montreal. \*Bowman, Archibald A., New Glasgow, N.S. \*Cornwall, Clement A. K., Ashcroft, B.C. \*Pergau, Harry, Lyn, Ont.

\* To pass Supplemente' Examination.

Black, Thompse Ewart, George Gillean, Robert Shepherd, Harr

\*To pass Sup

edal. or Survey-Graphical

ressing. Iduate So-Machinery. 2.

\*Hawker, James T., St. John, N.B. \*Fraser, Harold, Brockville, Ont.

### MECHANICAL ENGINEERING.

Young, William M., Renfrew, Ont. \*Whyte, John S., Osgood, Ont. \*Dargavel, James S., Elgin, Ont. \*Hickey, John V., Montreal. \*Davidson, William A., Peterboro, Ont. \*Wenger, Edgar I., Ayton, Ont. \*Ewan, Herbert M., Montreal.

### MINING ENGINEERING.

Kirkpatrick, Stafford F., Kingston, Ont.
Yuile, Norman M., Montreal.
Morgan, Charles B., Hamilton, Ont.
Pitcher, Norman C., Stanstead, Que.
Preston, John A., Toronto, Ont.
Campbell, Norman M., Montreal.
MacInnes, Henry W., Halifax, N.S.
Stevens, Angus P., Dunham, Que.
Waller, George W., Bartonville, Ont.
\*Moore, William M., Ottawa, Ont.
\*Henderson, Richard A., Chilliwack, B.C.

### PRACTICAL CHEMISTRY.

Hutchinson, William S., Montreal. McLaren, Archibald J, Montreal.

### SECOND YEAR.

Black, Thompson T.-2nd Fleet Workshop Prize Prize in Descriptive Geometry Ewart, George R.-Prizes in Surveying and Experimental Physics. Gillean, Robert H.-Prizes in Mapping and Surveying Fieldwork. Shepherd, Harry L.-Prize in Kinematics.

### Passed the Sessional Examinations.

### (In Order of Merit).

### ARCHITECTURE.

### Byers, Archibald F., Gananoque, Ont.

### CIVIL ENGINEERING.

Anglin, James P., Kingston, Ont. Ewart, George R., Kilauea, Kanai, Hawaiian Islands. \*Burgoyne, Stanley J., Halifax, N.S.

\*To pass Supplemental Examination.

### ELECTRICAL ENGINEERING

Shepherd, Harry L., Brockville, Ont. Nelson, George J., Montreal. Allen, Samuel J., Maitland, N.S. Walker, Frank W., Montreal. Black, Thompson T., Sackville, N.B. Duncan, G. Rupert, Montreal. Miller, Angus K., Bridgeburg, Ont. Percy, Howard M.. Montreal. Smith, George B., Stratford, Ont. St. George, Harry L., Montreal. •Montgomery, George, Morrisburg, Ont. Glassco, Jack G., Hamilton, Ont.

### MECHANICAL ENGINEERING.

Neville, Thomas P. J., Halifax, N.S. \*Hamilton, George M., Peterboro, Ont. Macmaster, Arthur W., Montreal. \*Arkley, Lorne M., East Angus, Que.

MINING ENGINEERING.

Gillean, Robert H., Montreal. Buffett, Aaron F., Grand Bank, Newfoundland. Cowans, Frederick, Montreal. Corriveau, Raoul de B., Iberville, Que. Moore, Ernest V., Peterboro, Ont. \*Robertson, Philip W.K., Mexico City, Mexico.

### PRACTICAL CHEMISTRY.

Barber, Rene R., Georgetown, Ont.

### FIRST YEAR.

Burson, Herbert A.-Hutchison Prize for Freehand Drawing; 2nd Fleet Workshop Prize.

Clement, Sheldon B .- Prizes for Chemistry and Mathematics

Egleson, James E. A .- Prizes for Chemistry and Descriptive Geometry.

Fry, David M .- 1st Fleet Workshop Prize.

Gagnon, Edmund E.-Hutchison Prize for Lettering.

Lloyd, Herbert M.-Prize for Descriptive Mechanism, Hutchison Prize for Freehand Drawing.

McKenzie, Bertram S.—Prize for Mathematics, Hutchison Prize for Lettering. Taylor, Charles W.—Prizes for English<sup>\*</sup> and Practical Chemistry. Ward, Percy W.—Hutchison Prize for Lettering.

\*To pass Supplemental Examination.

\*To pass Suppl

### 314

### 315

### Passed the Sessional Examinations.

(In Order of Merit).

Clement, Sheldon B., Clinton, Ont. Burson, Herbert A., St. Catharines, Ont. Egleson, James E. A., Ottawa, Ont. Taylor, Charles W., Richmond, Ont. Wilson, Thomas A., Halifax, N S. Fry, David M., Bright, Ont. Edwards, William M., Ottawa, Ont. Fraser, Donald C., New Glasgow, N.S. McLaren, John, Montreal. McKenzie, Bertram S., London, Ont. Ward, Percy W., Lachine, Que. Paterson, Charles S., Montreal. Higman, Ormond, Ottawa, Ont. DeBlois, William H., Halifax, N.S. Schwitzer, Thomas H., Ottawa, Ont. Lloyd, Herbert M., New Westminster, B.C. \*Glassco, Archie P.S., Hamilton, Ont. Blue, Allen P., Eustis, Que. Plant, Verner L., Montreal. Fréchette, Howells, Ottawa, Ont. \*Hampson, E. Greville, Montreal. Lowden, Warden K., Montreal. Galbraith, Malcolm T., Montreal. \*Ogilvie Paul, Cumming's Bridge, Ont. Coote, Sydney R., St. Albans, Vt., U.S.A. Wakeling, Otty S., St. John, N.B. \*Scott, Henry M., Montreal. Hearn, John F., St. John's, Newfoundland. Gagnon, Edmund E., Montreal, Que. \*Melntosh, John G., London, Ont. \*White, Gerald, V., Pembroke, Ont. Askwith, Charles E., Ottawa, Ont. \*Tupper, Charles, Vancouver, B.C. \*Labatt, John S., London, Ont. Cameron, Hugh D., Montreal. \*Flint, William G., Montreal. \*Ritchie, Joseph N., Halifax, N.S. \*Howard, Rupert F., Lachine, Que. \*Wells, Samuel S., Montreal. Reynolds, Leo B., Waterford, Ont. Burwell. Ernest V., London, Ont. \*Jamieson, George E. T., Montreal.

\*To pass Supplemental Examination.

st Work-

for Free-

ering.

FIRST YE

FOURTH YE

Dr

THIRD YEAL

SECOND YEA

SECOND YEA Gill Cla gog

FIRST YEAR.-Keni Burs Gagi Schw (P.), 1 Class

Burch

Hea

316

### STANDING IN THE SEVERAL SUBJECTS.

### ALTERNATING CURRENTS.

FOURTH YEAR.—Class I.—Symmes, Eaves. Class II.—Sheffield, Archibald (H. P.); Cape and Maclennan, equal. Class III.—Scott (J. H.), McLea.

### ARCHITECTURAL DRAWING.

THIRD YEAR.-Class I.-Hyde (G. T.) and Staveley, equal. Class II.-Peden, Class III.-McLeod (N. M.).

SECOND YEAR. - Class I.-None. Class II.-Coote, Byers. Class III. - Anglin and Toole, equal.

### ARCHITECTURE, HISTORY OF.

THIRD YEAR.—Class I.—Staveley, Hyde (G. T.). Class II.—Peden. Class III. —McLeod (N. M.).

SECOND YEAR.-Class I.-Coote. Class II.-Anglin; Byers and Toole, equal.

### Optional.

SECOND YEAR.-Class I.-None. Class II.-Black, Ewart. Class III.-Burgoyne, Smith (G. B.), Shepherd.

### ARCHITECTURE, THEORY OF.

SECOND AND 'THIRD YEARS.—Class 1.—None. Class 11.—Coote and Staveley. equal; Hyde (G. T.), Anglin. Class III.—Toole; McLeod (N. M.) and Peden, equal; Byers.

### ASSAYING.

FOURTH YEAR.—Class I.—Atkinson (D. C. T.), Ainley, MacLean. Class II.— Davis and Butler, equal; Young (G. A.), Atkinson (W. J.), Hillary.

### BUILDING CONSTRUCTION.

SECOND YEAR.—Class I.—Nelson, Shepherd, Byers, Miller (A. K.); Black and Macmaster and Walker, equal; Corriveau and Staveley, equal; Anglin and Allen and Burgoyne and Gillean, equal. Class II.—Buffett, Cary;
Coussirat and Duncan and Percy, equal; Arkley; Cowans (F.) and Ewart and Howard (L. O.) and Moore (E. V.), equal; St. George; Forman and Neville and Smith, equal; Osborne and Robertson, equal; Donaldson and Montgomery, equal; Fraser (John W.). Class III.— Glassco (J. G.) and Ogilvie (N. C.), equal; Sise, Millar (J. L.), Pyke.

### CHEMISTRY.

SECOND YEAR.-(Practical Chemistry Course).-Class I.-None. Class II.-Barber. Archibald

.-Peden,

-Anglin

lass III.

equal.

111.-

Staveley. M.) and

ss 11.-

Anglin , Cary ; F.) and Heorge ; equal ; III.— Pyke.

II.-

317

FIRST YEAR.—Class I.—Egleson. Class II.—Ritchie, Burson, Fry, Taylor, Edwards, Wakeling, Wilson (T. A.), DeBlois; Hampson and Higman and McLaren (J.), equal; Lloyd, Plant, White (G. V.); Askwith and Glassco (A. P. S.), equal; Ogilvie (P.). Class III.—Cowen (E. A. A.), Blue; Fraser (D. C.) and Reynolds, equal; Galbraith, Labatt, Gagnon (E. E.); Fréchette and Schwitzer, equal; Coote; Burwell and Lowden, equal; Cameron, Wells, Ward (P. W.).

### CHEMISTRY, INORGANIC.

FOURTH YEAR.-Class 1.-Scott (A. P.). Class 11.-None. Class 111.-Drysdale.

### CHEMISTRY, ORGANIC.

FOURTH YEAR.-Class I.-Scott (A. P.). Class II.-None. Class III.-Drysdale.

THIRD YEAR.-Class I.-Hutchinson. Class II.-McLaren (A. J.).

SECOND YEAR.-Class 1.-Olds, Class 11.-Barber. Class 111.-Taylor.

### DESCRIPTIVE GEOMETRY.

SECOND YEAR.—Class I.—Black, Anglin, Nelson, Paterson, Shepherd. Class II.— Gillean, Allen, Moore (E. V.), Miller (A. K.), Smith (G. B.), Ewart, Buffett: Class 111.—Cowans (F.), Hamilton (G. M.), Montgomery, Walker, Burgogne, Byers, Coote, Neville, Arkley, Sise, Glassco (J. G.), St. George Hearn, Percy, Duncan.

FIRST YEAR.—Class I.—Eglesou, Fry, Clement, Ward (P.), Wilson (T. A.), Mc-Kenzie, Fréchette, McLaren (J.), Fraser (D. C.), McIntosh, Scott (H. M.), Burson, Higman, Lloyd, Flint, Galbraith. Class II.— DeBlois, Cameron, Gagnon (E. E.), Taylor, Glassco (A. P. S.), Edwards, Hampson, Schwitzer, Lowden, Labatt, Jamieson, Tupper, Askwith, Wells, Ogilvie (P.), Blue, Cowen (E. A. A.), Walsh, Wakeling, Plant, White (G. V.). Class III.—Farquharson, Brooktield, Reynolds, Ward (C. R.), Boyd, Burchell, Buchanan.

### DESCRIPTIVE MECHANISM.

FIRST YEAR.—Class I.—Lloyd, Egleson; McKenzie and Paterson, equal. Class II.—Wilson (T. A.), Wakeli ng, McLaren (J., Clement; Higman and Taylor, equal; Burson and Fry, equal; Gagnon (E. E.). Class III.— Fréchette and Plant and Ward (P. W.), equal; Schwitzer, Lowden, Cowen (E. A. A.), Edwards; Glassco (A. P. S.) and Ogilvie (P.) and Tupper, equal; Blue and Burchell, equal; Flint and Ward (C. R.), equal; Askwith and Galbraith, equal; Jamieson and DeBlois, equal; Buchanan; Fraser (D. C.) and Scott (H. M.), equal; Boyd, Reynolds; Cameron and McDonald (S.) and McIntosh, equal.

## 318 Designing.

FIRST YI

e M

B

YE

Ma

Mc

Jai

eq1 Wi

Blu

Flin

equ

Far

field

Har

Bon

Cam

(L. )

Pres

Van.

(D. C

MacL

FOURTH YEA

THIRD YEAR

FOURTH YEA

THIRD

FIRST YEA

FOURTH YEAR.-(Civil Engineering Course). Class 1.-McCarthy, Macphail, Irving. Class II.-Bond, Matheson, Anderson, Benny. (Electricate Engineering Course). Class I.-Maclennan. Class II.-Sheffield, Symmes; Eaves and Scott (J. H.), equal; Archibald (H. P.), Cape. Class III.-McLea. (Mechanical Engineering Course).- Class I.-Angel, Thomas Laurie. Class II.-Waterous, Mackerras, Patton, McRae, Dean, Class III.-Bacon, Beatty, Davidson (J. H.). (Mining Engineering Course).-Class I.-Butler, MacLean, Atkinson (D. C. T.). Class II.-Davis, Young (G. A.), Atkinson (W. J.), Ainley, Hillary.

### DETERMINATIVE MINERALOGY.

THIRD YEAR.—Class I.—Hutchinson; Pitcher and Stevens, equal. Class II.— Waller and Yuile, equal; McLaren (A. J.); Campbell and Kirkpatrick, equal; Morgan and Preston, equal; Moore (W. M.). Class III.— MacInnes, Macmillau.

### DYNAMICS OF MACHINERY.

- FOURTH YEAR.—(Electrical Engineering Course). Class I.—Cape. Class II.— Macleman, Sheffield, Eaves. Class 111.—Scott (J. H.) (Mechanical Engineering Course). Class 1.—Angel, Laurie. Class II.—Dean, Waterous, Thomas, Patton. Class 111.—Yorston, Mackerras, McRae. Davidson (J. H.), Bacon, Beatty.
- THIRD YEAR.—Class I.—McLean (W. B.), Grier. Class II.—Shaw, Hyde (J. C., Wilson (R. M.); 'Archibald (E. M.) and Fraser (J. W.), equal; Young (W. M.), Denis. Class III.—Bowman, Fetherstonhaugh; Burgess and Hickey, equal; Davidson (W. A.); Whyte (J. S.) and Pergau, equal; Wenget; Cornwall and Dargavel, equal; Ewan.

### DESCRIPTIVE ELECTRICAL ENGINEERING.

FOURTH YEAR.—Class I.—Maclennan, Archibald (H. P.); Cape and Sheffield and Waterous, equal; Eaves and McCarthy and Symmes, equal. Class II.— Mackerras; Angel and McLea and Scott (J. H.), equal; Irving, Anderson, Macphail, MacLean (T. A.); Laurie and McRae and Thomas, equal; Atkinson (D. C. T.) and Butler and Davidson (J. H.), equal. Class III.—Matheson and Young (G. A.), equal; Ainley; Hillary, Atkinson (W. J.) and Bacon, equal; Beatty and Davis and Dean and Patton, equal; Bond, Benny.

### ELECTRICAL ENGINEERING.

- FOURTH YEAR.—Class I.—Eaves. Class II.—Scott (J. H.), Cape, Sheffield, Symmes. Class III.—Maclennan, Archibald (H. P.).
- THIRD YEAR.—Class I.—Denis; McLean (W. B.) and Shaw, equal. Class II.— Grier, Pergau. Class III.—Fraser (H.), Hyde (J. C.), Wilson (R. M.); Archibald (E. M.) and Burgess and Fraser (J. W.), equal.

Macphail, (Electricat -Sheffield, )ape. Class I.-Angel, :Rae, Dean, Engineering Class II.-

> irkpatrick, 188 III.-

lass II.— Iechanical I.—Dean, s, McRae.

de (J. C., 1; Young rgess and au, equal;

> ffield and 288 II.— Irving, Thomas, ), equal. Hillary, ean and

> > Sheffield,

ss II.-(R. M.);

### 319

### ENGLISH.

FIRST YEAR.—Class I.—Taylor, Paterson, Brookfield, Plant, Burson; Buchanan and Fry and Ward (P.), equal; McIntosh; Clement and Fraser (D. C.) and Higman and Wilson (T. A.), equal. Class II.—Lloyd, Ogilvie (P.), Peck, Egleson, Scott (H. M.), Fréchette, Schwitzer, Wakeling; Farquharson and Labatt, equal; Tupper and White (G. V.), equal; Edwards and Hale, equal; Cowen (E.) and Gagnon (E. E.) and Jamieson and Walsh, equal; DeBlois and Slayter, equal; Ritchie and Ward (R.), equal; Reynolds, Cameron, McLaren (J.); Blue and Lowden, equal. Class III.—Burchell; Hampson and Wilkins, equal; Askwith and McKenna, equal; Galbraith and Glassco (A. P. S.), equal; Stevenson, Boyd, Flint, Mitchell, Wells, McDonald (S.), Meldrum.

### FREEHAND DRAWING.

- THIRD YEAR.-(Architectural Course). Class I.-Hyde (G. T.). Class II.-McLeod (N. M.), Peden, Staveley, Anglin, Byers, Slayter, Trenholme, Toole.
- FIRST YEAR.—Class I.—Burson and Lloyd, equal; Ward (P.); Cameron and McKenzie, equal; Fry and Galbraith, equal; Peck, Gagnon(E. E.); Jamieson and McLaren (J.), equal; Clement; Taylor and White (G. V., equal. Class II.—Egleson, Lowden; Fréchette and Scott (H. M.) and Wilson (R. C.), equal; Higman and Plant and Wilson (T. A.), equal; Blue, Edwards, Labatt; Schwitzer and Ward (R. C.), equal; Walsh; Flint and Wakeling, equal. Class III.—DeBlois and Fraser (D. C.); equal; McDonald (S.) and McIntosh and Wells, equal; Buchanan and Farquharson, equal; Burchell and Mitchell and Tupper, equal; Brook field and Glassco (A. P. S.) and Ogilvie (P.), equal; Askwith and Hampson and Ritchie, equal.

### C GEODESY.

FOURTH YEAR.—Class I.—McCarthy, Irving. Class II.—Macphail, Anderson, Bond. Class III.—Matheson, Benny.

### GEOLOGY.

THIRD YEAR.—Class I.—None. Class II.—Kirkpatrick, Pitcher, Hutchinson, Campbell (N. M.), McLaren (A. J.), Fraser (C. E.), Colpitts, Gagnon (L. F.), Yuile. Class III.—Moore (W. M.) and Corriveau, equal; Preston; MacInnes and Waller, equal; Morgan; Bachand and Van.Horne, equal; Henderson.

### GEOLOGY (ADVANCED).

FOURTH YEAR.—Class I.—Davis. Class II.—Young (G. A.), Atkinson (D. C. T.), Atkinson (W. J.), Ainley, Butler, Hillary. Class III.— MacLean (T. A.)

### GRAPHICAL STATISTICS.

THIBD YEAR.— Architectural and Civil Engineering Courses).—Class I.—Colpitts. Class II.—Peden; Hyde (G. T.) and McLeod (N.M.), equal; Gough; Fraser (C. E.) and Gagnon (L. F.), equal. Class III.—Van Horne, Bachand, Parizeau, (Electrical, Mechanical and Mining Engineering Courses. Class I.—Shaw; Burgess and Gisborne, equal; Davidson (W. A.) and Hyde (J. C.), equal; Denis and Grier and McLean (W. B.), equal., Class II.—Archibald (E. M.) and Kirkpatrick, equal; Cornwall and Fetberstonhaugh and Fraser (J. W.), equal; Hickey and Whyte (J.S.), equal; Young (W. M.); Hawker; Corriveau and Pergau, equal; Preston and Wenger, equal; Morgan; Campbell and Wilson (R.M.), equal; Dargavel and MacInnes, equal. Class III.—Moore (W. M.) and Stevens, equal; Austin; Bowmap and Yuile, equal; Fraser (H.); Ewan and Henderson and Nicholls and Waller, equal.

### HYDRAULICS.

FOURTH YEAR.-Class I.-Cape and McCarthy equal; Irving. Class II.-Butler, Anderson, Dean, Davis; Laurie and Eaves and Waterous, equal; Macphail, Angel, Sheffield. Class III.-Thomas, Bond, MacLean (T. A.), Young (C. A.), Ainley, Patton, Maclennan, Atkinson (W. J.), Benny; Atkinson (D. C. T.) and Davidson (J. H.) and Matheson, equal; Bacon, McRae, Archibald (H. P.) McLea, Mackerras.

### KINEMATICS OF MACHINES.

SECOND YEAR.—Class 1.—Nelson, Shepherd. Class II.—Percy, Walker, St. George; Miller (A. K.) and Smith (G. B.), equal; Black; Allen and Duncan, equal; Arkley.—Class III.—Macmaster, Neville; Coussirat and Glassco (J. G.), equal; Hamilton (G. M.), Forman, Osborne, Montgomery.

### LABORATORY WORK.

### FOURTH YEAR.—(Chemical Laboratery).—Class I.—Scott (A. P.). Class 11.— Drysdale.

 THIRD YEAR.—(Chemical Laboratory, Mining Engineering Course).—Class I.— Kirkpatrick, Yuile, Waller. Class II.—Stevens, Preston, Campbell, Morgan, MacMillan, MacInnes, Nicholls. Class III.—Henderson, Blaylock, Moore (W. M.). (Chemistry Course).—Class I.—Hutchinson. Class II.—Olds, MacLaren (A. J.). Class III.—Gamble.

SECOND YEAR.---Chemical Laboratory. (Mining Engineering and Chemistry Courses.)--Class I.-Howard (L. O.), Gillean, Taylor. Class II.-Cowans (F.) and Pitcher, equal; Buffett, Moore (E. V.), Barber, Corriveau, Donaldson, Cary. Class III.--Maclaren (G. M.), Robertson, Pyke.

FIRST YI 8 S a a (. C L W A FOURTH Y Sb Cl THIRD YEAR Sha sto Hay Per FOURTH YEA Car FIRST YEAR. DeB and and ] (J.) Came (A. ] Askw and 1 equal Jamie. FOURTH YEAR Class Macke FOURTH YEAR. Class Class 1 FOURTH YEAR.equal; Benny. THIRD YEAR.-( equal;

320

> 288 11.-15, equal; MacLean 1 (W. J.), n, equal;

> > Walker, llen and loussirat e, Mont-

> > > s 11.-

mpbell, , Blayhinson.

> mistry II.— Barber, ertson,

321

FIRST YEAR.—Chemical Laboratory.—Class I.—Taylor, Schwitzer; McKenzle and Wakeling, equal; Fraser (D. C.), Burson and Edwards, equal; Scott (H. E.), Higman; DeBlois and Lloyd, equal; Ritchie; Clément and Wilson (T. A.), equal; Egleson, Coote, Ward (P. W.); Scott (H. M.) and White (G. V.), equal; Fry. Class II.—Labatt; Blue and Glassco (A. P. S.), equal; Fréchette and McLaren (J.), equal; Farquharson; Cowen (E. A. A.) and F.int and Plant, equal; Hampson, Galbraith, Lowden, Tupper, Jamieson, Gagnon (E. E.), Wells; Jamieson and Ward (R.), equal. Class III.—Miner, Burwell, Walsh, Reynolds, Askwith, Burchell, Boyd, McKenna.

- FOURTH YEAR.-(Electrical Laboratory).-Class 1.-Eaves. Class 11.-Sheffield, Scott (J. H.); Symmes, Cape, Maclennan, Archibald(H. P.), Class III.-McLea.
- THIRD YEAR.—(*Electrical Laboratory*).—*Class I.*—Wilson (R. M.), Fraser (H.). Shaw. *Class II.*—Bowman; Archibald (E. M.) and Denis and Fether, stonhaugh and Grier, equal. *Class III.*—Burgess and Cornwall, equal; Hawker and Hyde (J. C.), equal; McLean (W. B.); Fraser (J.W.) and Pergau, equal.
- FOURTH YEAR.—(Geodetic Laboratory).—Class I.—Anderson; Irving and Me-Carthy and Macphail, equal; Bond. Class II.—Matheson, Benny.
- FIRST YEAR.—(Mathematical Laboratory) —Class 1.—Burson; Clement and DeBlois, equal; Fraser (D. C.); Fry and Wilson (T. A.), equal; Egleson and Higman, equal; McKenzie; Edwards and Taylor, equal; Burwell and Fréchette and Paterson and Schwitzer, equal; Lloyd and McLaren (J.) and McIntosh and Ward (P. W.) and White (G. V.), equal; Plant; Cameron and Flint, equal. Class II.—Blue and Galbraith and Glassco (A. P. S.) and Hampson and Reynolds and Scott (H. M.), equal; Askwith and Lowden and Wakeling and Wells, equal; Gagnon (E. E.) and McKenna and Ogilvie (P.), equal; Hearn and Labatt and Ritchie, equal; Boyd and Tupper, equal; Farquharson; Burchell and Coote and Jamieson, equal; Ward (R.).
- FOURTH YEAR.-(Mechanical Engineering Laboratory).-Class I.-Waterous. Class II.-Angel and Laurie, equal; Patton, Davidson (J. H.), McRae, Mackerras, Dean. Class III.-Bacon, Beatty, Thomas.
- FOURTH YEAR. (Physical Laboratory, Electrical Engineering Course). -Class I.-Eaves and Sheffield, equal; Cape, Maclennan, Symmes. -Class II. - Archibald (H. P.). Class III. - McLea, Scott (J. H.).
- FOURTH YEAR.—(Testing Laboratory).—Class I.—McCarthy and Matheson, equal; Irving and Macphail, equal; Anderson. Class II.—Bond Benny.

THIRD YEAR.-(Testing Laboratory).-Class I.-Grier; Colpitts and Corriveau, equal; McLean (W. B.) and Shaw, equal. Class II.-Kirkpatrick and Whyte (J. S.), equal; Archibald (E. M.), Ewan, Young (W. M.) Fetherstonhaugh; Denis and Wilson (R. M.), equal; Bowman and Burgess and Cornwall and Hyde (J. C.) and Wenger and Yuile, equal; Morgan, MacInnes, Hickey. *Class 111.*—Campbell, Gisborne, Fraser, J. W.), Dargavel and Davidson (W. A.), equal; Fraser (C. E.), Fraser (H.) and Gagnon (L. F.) and Gough, equal; Austin and Hawker and Preston, equal; Bachand; Pergau and Waller equal; Moore (W. M.); Henderson and Stevens, equal; Parizeau and Van Horne, equal.

FOURTH YEAR.-(Thermodynamic Laboratory).-Class 1.-Angel, McRae, Waterous. Class 11.-Patton. Class 111.-Dean, Laurie, Mackerras, Beatty, Davidson (J. H.), Thomas, Bacon, Yorston.

### LETTERING.

FIRST YEAR.—Class I.—Gagnon (E. E.) and McKenzie and Ward (P.) equal; Burson; ylod ndaPaterson, equal; Cameron and White (G. V.), equal; Fry and Lowden, equal; McLaren (J.) and Wilson (T. A.), equal; Fraser (D. C.) and Taylor, equal; Jamieson; Higman and Ward (R. C.), equal. Class II.—Blue and Edwards, equal; Peck; Clement and Labatt and Plant, equal; DeBlois and Mitchell, equal; Tupper, Fréchette; Buchanan and Galbraith and Egleson and Walsh, equal; Schwitzer; Hampson and McIntosh and Ogilvie (P.) and Ritchie and Wakeling and Wells, equal; Brookfield and Farquharson and Glassco (A. P. S.) and McDonald (S.) and Slayter, equal. Class III.—Burchell and Scott (H. M.), equal; Flint; Boyd and Cowen (E. A. A.), equal; Meldrum, Askwith.

### MACHINE DESIGN.

- FOURTH YEAR.—(Electrical Engineering Course.)—Class I.—None. ClassII.— Cape and Sheffield, equal; Archibald (H.P.), Maclennan, Simpson (J.M.). Class III.—Eaves, Scott (J.H.), McLea. (Mechanical Engineering Course)—Class I.—Angel and Laurie, equal. Class II.— Dean, Patton, Waterous, Mackerras, Thomas. Class III.—Beatty; Bacon and Davidson (J.H.), and McRae, equal.
- THIRD YEAR.—(Electrical and Mechanical Engineering Courses.)—Class I.—Grier. Class II.—McLean (W.B.) and Wilson (R.M.), equal; Shaw, Hyde (J.C.), Denis. Class III.—Archibald (E.M.), Young (W.M.), Whyte (J.S.); Burgess and Wenger, equal; Hickey, Fetherstonhaugh, Bowman, Fraser, (J.W.), Cornwall.

### MAP CONSTRUCTION AND PERSPECTIVE.

THIRD YEAR.—(Civil Engineering Course.) - Class I.—Colpitts, Fraser (C.E.) Class II.—Gagnon (L.F.) Class III.—Gough, Bachand.

### MAPPING.

THIRD YEAR.—(Architectural Course.)—Cl 138 I.—Hyde (G.T.) and McLeod (N) and Peden, equal. (Civil Engineering Course)—Class I.—Colpitts, Gagnon (L.F.), Fraser (C.E.), Gough. Class II.—Van Horne, Bachand. Class 111.—Parizeau. SECOND

THIRD }

E Second Y: N eq (J.

F

FIRST YEAH Taj Gla Sch

go

Lou chei Coc †Mc

THIRD YEAR. bald (J. V (H.), Youn son ( Garv

SECOND YEAR. Percy

(R. T. White St. G.

Osbori

\* Supple † Supple (W. M.) d Burgess ; Morgan, ; J. W.), ; (H.) and Preston, Henderson

> McRae, [ackerras,

).) equal;
.), equal;
il; Fraser
.), equal.
d Labatt
réchette;
shwitzer;
eling and
S.) and
nd Scott
Meldrum,

lass II.-clenn a n, echanical ass II.---Beatty;

> .-Grier. le (J.C.), e (J.S.) ; , Fraser,

E.) Class

(N) and Gagnon Bachand. 323

SECOND YEAR.—(Architectural and Mining Engineering Courses.)—Class I.— Gillean. Class II.—Cowans (F.), Buffett, Moore (E.V.), Byers, Donaldson, Cary. Class III.—Robertson, Pyke (Civil Engineering Course.) Class I.— None. Class II.—Anglin, Burgoyne, Ewart.

### MATHEMATICS.

- THIRD YEAR.—Class I.—Grier, McLean, (W.B.) Class II.—Blaylock, Shaw, Kirkpatrick, Colpitts, Archibald (E.M.), Fraser (J.W.), Hyde (G.T.), Burgess, Denis, Fetherstonhaugh, Stevens, Pergau, Young (W.M.), Fraser, (O.E.), Cornwall, Wilson (R.M.). Class III.—Dargavel, MacInnes; Davidson (W.A.) and Gagnon (L.F.)and Preston, equal; Peden; Whyte (J.S.), and Yuile, equal; Hawker, McLeod (N.), Hyde (J.C.), Waller; Bachand and Bowman and Morgan, equal; Moore (W.M.), Gough, Henderson.
- SECOND YEAR.—Class I.—None. Class II.—Gillean, Shepherd, Nelson, Allen-Neville, Walker, Buffett, Robertson, Duncan; Cowans (F.) and Olds, equal; Percy, Ewart, St. George, Macmaster, Miller, (A.K.). Class III.
  —Anglin, Hamilton, G.M.), Corriveau, Maclaren (G.M.J..); Glassco (J.G.) and Moore (E.V.), equal; Smith; Black and Byers, equal; \*Montgomery.
- FIRST YEAR.—Class I.—McKenzie, Clement, Edwards, Wilson (T.A.), Egleson Taylor, Burson, Paterson, Fraser, (D.C.), McLaren (J.), Fry. Class II.— Glasseo (A.P.S.), Ogilvie (P.), Hampson, Ward (P.), DeBlois, Blue, Schwitzer, McIntosh, Higman, Askwith, Plant, Tupper, Scott (H.M.), Lowden: Flint. and Galbraith, equal. Class III.—Reynolds; Frechette and Lloyd, equal; Hearn, Ritchie, Labatt, tWhite (G.V.), Wakeling, Coote, Wells, Burwell, Cameron, Gagnon (E.E.), tHoward (R.F.), tMcKenna, Boyd.<sup>-</sup>

### MECHANICAL DRAWING.

THIRD YEAR.—(Electrical Engineering Course).—Class I.—Burgess, Shaw, Archibald (E. M.), Fetherstonhaugh. Class II.— Bowman, Grier, Fraser (J. W.), Cornwall, Hawker. Class III.—Hyde (J. C.), Pergau, Fraser (H.), (Mechanical Engineering Course).—Class I.—Whyte (J. S.), Young (W. M.), McLean (W. B.), Denis and Gisborne, equal; Davidson (W. A.), Wilson (R. M.), Hickey. Class II.—Dargavel, Wenger, Garrett. Class III.—Austin, Ewan.

SECOND YEAR.-Ciass 1.—Hamilton (G. M.), and Shepherd, equal; Nelson and Percy, equal; Smith (G. B.). Class II.—Walker, Black, Howard (R. T.), Miller (A. K.) and Montgomery and Duncan, equal; Allen and Whiteway, equal; Glassco (J. G.), Ogilvie (N. C.). Class III.— St. George, Macmaster; Arkley and Sise, equal; Hearn; Kane and Osborne, equal; Fraser (John W.), Neville, Forman.

\* Supplemental in Calculus. † Supplemental in Dynamics.

### MATHEMATICAL PERSPECTIVE.

### THIRD YEAR.-Architectural Course. - Class 1.-Peden, McLeod (N. M.). Class II.-Hyde (G. T.)

### MECHANICAL ENGINEERING.

FOURTH YEAR. - Class I.-Laurie, Angel. Class II.-Waterous, Dean, McRae, Patton. Class III .- Mackerras, Davidson (J. H.), Bacon, Yorston, Thomas, Beatty.

### METALLURGY.

- FOURTH YEAR. Class I.-Scott (A. P.), Davis, Butler. Class II.-Atkinson, (D. C. T.), Ainley; MacLean (T. A.) and Young (G. A.), equal; Atkinson (W. J.), Hillary. Class III.-Drysdale.
- THIRD YEAR.-Class I.-Kirkpatrick, Blaylock. Class II .- Yuile, Pitcher, Preston, Morgan, Olds, McLaren (A. J.), Moore (W. M.) Campbell, Gamble, Hutchinson, Nicholls, MacInnes. Class III.-Henderson, Stevens, Waller.

### MINERALOGY (ADVANCED.)

- FOURTH YEAR. Class I.-Davis; Butler and Young (G. A.), equal; Ainley, Class II.-Atkinson (D. C. T.), Atkinson (W. J.), MacLean (T. A.) Hillsry. Class III .- Drysdale.
- THIRD YEAR.-Class I.-None. Class II.-Hutchinson and Kirkpatrick, equal; McLaren (A. J.) Class III .- Yuile, Preston, Gamble, Campbell, Morgan.

### MINING.

SECOND YEAR .- Class I .- Corriveau and Shepher I, equal ; Allen and Cary, equal; Burgoyne, Gillean, Buffett. Class II .- Black, Ewart, Robertson, Cowans (F.), Smith ; Howard (L. O.) and Anglin, equal ; Duncan and Nelson, equal; Arkley and Coussirat and Donaldson, equal; Walker, Miller (A. K.), Forman ; Moore (E. V.) and Byers, equal ; Neville; Osborne and Sise, equal; Fraser (John W.), and Glassco (J. G.), and Percy, equal. Class III .- Montgomery ; Kane and Ogilvie (N. C.). equal; Macmaster, St. George; Maclaren (G. M.) and Hamilton (G. M.), equal; Millar (J. L.), Pyke.

### MINING DRAWING.

- THIRD YEAR .- Class 1 .- Morgan, Corriveau, Preston, Kirkpatrick. Class II .-Campbell, Henderson, Yuile, Nicholls, MacInnes. Class III .- Waller, Stevens, Olds.
- SECOND YEAR.-Class I.-Cowans (F.), Gillean, Howard (L. O.). Class II.-Buffett, Burgoyne, Donaldson, Maclaren (G. M.) and Moore (E. V.), equal; Robertson, Cary, Pyke.

Class I.

FOURTH

FOURTH

THIRD Y

FOURTH Y

FOURTH Y

() Н

THIRD YE. Μ

THIRD YEA

ar W

 $(\mathbf{E}$ Ma (C (J. Co (L. Mo Gis SECOND YEA Wa

(G.

Mor

(J. (

McRae, Yorston,

Atkinson, , equal;

Pitcher, ampbell, enderson,

> Ainley, (T. A.)

k, equal; ampbell,

id Cary, Robert-Duncan , equal; ual; Neo (J. G.), ≥ (N. C.). 1 (G. M.),

-Waller,

(E. V.),

### MODELLING (CLAY).

Class I.-Hyde (G. T.), McLeod (N. M.), Peden. Class II.-Staveley, Trenholme. Class III.-Slayter.

### MUNICIPAL ENGINEERING (ROADS AND PAVEMENTS).

FOURTH YEAR.—Class 1.—McCarthy, Irving, Macphail. Class 11.—Anderson, Matheson, Benny. Class 111.—Bond.

### MUNICIPAL ENGINEERING (SANITATION).

- FOURTH YEAR.-(Civil Engineering Course)-Class J.-Anderson, Macphail, Irving, McCarthy. Class II.-Bond, Penny, Matheson.
- THIRD YEAR.—(Architectural and Civil Engineering Courses).—Class I.—Colpitts Class II.—Fraser (C. E.) and Hyde (G. T.) and Van Horne, equal; Mc-Leod (N.), Gagnon (L. F.), Gough. Class II.—Peden, Bachand, Parizeau.

### MUSEUM WORK IN MINERALOGY AND GEOLOGY.

FOURTH YEAR.—Class I.—Davis. Class II.—Atkinson (D. C. T.), Butler, Young (G. A.). Ainley and Atkinson (W. J.), equal; MacLean (T. A.) Class III.—Hillary.

### ORE DRESSING.

- FOURTH YEAR.—*Class I.*—Davis, Atkinson (D. C. T.), Butler. *Class II.*—Scott (A. P.), Atkinson (W. J.); MacLean and Young (G. A.), equal; Ainley, Hillary and Drysdale, equal.
- THIRD YEAR.—Class I.—Kirkpatrick, Olds, Pitcher, Hutchinson. Class II.— Moore (W. M.); Henderson and McLaren (A. J.), equal; Campbell and Gamble, equal; Yuile, Morgan, Blaylock, Pitcher; MacInnes and Waller, equal; Nicholls. Class III.—Stevens.

### PHYSICS (THEORETICAL AND PRACTICAL).

- THIRD YEAR. Class 1.—Shaw, Grier, McLean (W. B.) Class 11—Archibald (E. M.), Kirkpatrick, Denis, Wilson (R. M.); Fetherstonhaugh and MacInnes, equal; Fraser (H.) and Yuile, equal; Colpitts and Fraser (C. E.), equal; Fraser (J. W.), McLeod (N. M.). Class 111.—Hyde, (J. C.); Burgess and Hyde (G. T.), equal; Young (W. M.), Whyte (J. S.) Corriveau and Wenger, equal; Bowman, Cornwall and Gagnon (L. F.), equal; Hutchinson and Peden, equal; Van Horne; Ewan and Moore (W. A.), and Morgan, equal; Bachand and Dargavel and Gisborne and Hawker and Hickey and Pergau and Preston, equal.
- SECOND YEAR.—Class 1.—Ewart; Anglin and Barber, equal; Shepherd, Allen,
  Walker, Burgoyne; Byers and Gillean, equal. Class 11.—Hamilton
  (G. M.), Nelson; Duncan and Robertson, equal; Arkley and Neville and
  Montgomery, equal; Buffett; Ogilvie (N. C.) and Percy, equal; Glassco
  (J. G.), Cowans (F.), MacMaster; Hearn and Millar (J. L.) and Smith (G.

B.), equal. Class III.—St. George, Donaldson, Maclaren (G. M.) and Miller (A. K.), equal; Black and Cary, equal; Moore (E. V.), Osborne, Howard (R. F.); Forman and Fraser (John W.), equal; Sise.

### RAILWAY WORK.

FOURTH YEAR. - Class I. - McCarthy ; Irving and MacThail, equal. Class II. - Anderson, Matheson, Bond, Benny.

THIRD YEAR.—Class I.—Colpitts. Class II.—Fraser (C. E.), Gagnon L. F.), Gough; Bachand and Van Horne, equal.

### SUMMER WORK.

FOURTH YEAR. - Class. 1. - Butler (Guggenheim Smelting Works at Perth-Amboy N. Y.) and Laurie (Lancashire Boiler) and McCarthy (Steel Roof Truss and McRae (Lancashire Boiler), equal; MacLean (T. A.), (Coal Mining); Angel (Lancashire Boiler) and Cape (Lancashire Boiler) equal; Atkinson (D. C. T.). (A Nova Scottan Gold Mine and Chlorination Plant.) Class II .-- Matheson (Two Stress Diagrams) and Patton (Lancashire Boiler) and Scott (A. P.), (Steel), equal; Archibald (H. T.), (The Huntingdon Electric Light System) and Mackerras (Gold Mining as carried on at Goldenville, N. S.), equal; Simpson (J. M.) (One month of App'ied Electricity), Macphail (60 ft. Roof Truss), Eaves (Lancashire Boilers); Mackie (Petroleum and Natural Gas) and Young (G.A.) (Hudson Bay Survey Trip), equal; Atkinson W. J. (Some hints for Prospectors and Miners) and Scott (J.H.) (Lancashire Boiler), equal; McLea (Lancashire Boiler) and Sheffield (Lancashire Boiler), equal ; Ainley (The Sudbury District and its Minerals). Class III .- Beatty (Lancashire Boiler) and Maclennan (Lancashire Boiler), equal; Bacon (Lancashire Boiler); Bond (Prospecting in Western Ontario) and Davis (Assaying and Drysdale (Petroleum), equal; Benny (Design of Roof Truss with Stress Diagram) and Irving (Combination Roof Truss), equal; Davidson (J. H.) (Lancashire Boiler), Waterous (Lancashire Boiler); Reaves (Lancashire Boiler, Dean (Tank Locomotive) and Hillary (The Metallurgy of Copper, and Chomas (General View of Steam Shovel and Hoisting Friction), equal; Yorston (Hydraulic Press).

THIRD YEAR.—Class I.—Archibald (E. M.) (Engine and Boiler); Denis (Engine and Boiler) and Ewan (Engine and Boiler), equal; Morgan (Hamilton Blast Furnace Plant); Bachand (Plans and Survey) and Colpitts (Different Styles of Stair-case) and Fraser (C. E.), (Topographic Map of Brousse Park, N. Y.) and Gagnon (Plans and Survey) and Gough (Plans and Survey) and Preston (Eustis Copper Mines), equal; Peden (Porch of Engineering Building); Whyte (J. S.) (Steam Plant for Morgan Cement Works); Blaylock (Asbestos Mining and Milling at Danville) and Hutchinson (The Alums) and Wilson (10,000 volt two phase Power Transmission, Three Rivers), equal. Class III.—Hyde (G. T.) (Measured Work and Sketches), equal; MacInnes (People's Heat and (N) (Measured Work and Sketches), equal; MacInnes (People's Heat and

eq SECOND YE. —] Gil \*Supple " THIKD YEA! Pre Stev Moç SECOND YEAI Byei

1

1

H

ps Pi

W

THIRD YE

\*Suppler

Pyk

M.) and Osborne,

Mass II.

L.F.),

-Amboy

f Truss ining); Atkin-Plant.) ncashire ), (The ning as month cashire ) (Hudrospec-McLea Ainley cashire ashire aying ss with Davidleaves Metaloisting ingine milton Differrousse s and ch of n Ce-) and ranssured

Leod

t and

327

Light Company, Halifax, N. S.), Young (W. M.) (Engine and Boiler of Electric Lighting Station, Renfrew); McLaren (A. J.) (The Alums) and Yuile (Methods of Blasting Manufacture and Use of Explosives), equal; Bowman (Outline Plan of Electric Light Station, Madoc, O.) and Grier (Babcock and Wilcox Boiler), equal ; Burgess (Engine and Boiler) ; Fetherstonhaugh (Babcock and Wilcox Boiler) and Moore (W.M.) (Manufacture of Iron in a Blast Furnace) and Shaw (Babcock and Wilcox Boiler) and Van Horne (Location and Early Construction Crow's Nest Pass Railway', equal; Campbell (Methods of Blasting and Manufacture of Explosives), Kirkpatrick (Explosives). Class 111.-Hyde (J. C.), (Engine and Boiler), Waller (Blasting and Explosives), Hickey (Horizontal Tubular Boiler); Henderson (Methods of Blasting and Manufacture of Explosives) and Parizeau (Plans and Survey) and Stevens (The Manufacture of Iron in a Blast Furnace) and Wenger (Engine and Boiler), equal; Austin (Drawing of an Engine) and Davidson (W. A.) (Corliss Engine) and Nicholls (The Lanark Mine), equal; Cornwall (Steam Pump and Boiler, C.P.R. Station, Ashcroft, B.C.), and Dargavel (Steam Engine) and Fraser (H.) (Vertical Section of an Upright Engine) and Fraser (James W.) (High Speed Laurie Engine) and Hawker (Engine and Boiler at Maine Central R.R. Shops, Waterville, Maine), and Pergau (Plan of Horizontal Engine), equal; Gisborne Shafting), Pitcher (Hydraulic-Press).

### SURVEYING.

THIRD YEAR.—(Architectural Course). Class 1.—None. Class 11.—McLeod (N.), Hyde (G. T.) (Civil and Mining Engineering Courses). Class 1.—Kirkpatrick, Colpitts. Class 11.—Stevens, Fraser (C. E.), Corriveau, Yuile, Pitcher; Gagnon (L. F.) and Preston, equal. Class 111.—Campbell, Waller, MacInnes, \*Henderson; \*Gough and Moore (W. M.) and \*Morgan, equal.

SECOND YEAR.—(Architectural, Civil and Mining Engineering Courses). Class 1. —Ewart. Class 11.—Cowans (F.), Buffett, Anglin, Robertson, Burgoyne, Gillean. Class 111.—Byers; Cary and Moore (E. V.), equal.

\*Supplemental in Practical Astronomy. " " Surveying.

### SURVEYING FIELD WORK.

- THIND YEAR.—Class I.—Colpitts. Class II.—Gagnon (L. F.), Henderson, Preston, Corriveau, Kirkpatrick, Fraser (C. E.), \*Pitcher; Morgan and Stevens, equal; MacInnes. Class III.—Yuile, Campbell, Gough, Waller, Moore (W. M.); Bachand and Parizeau, equal.
- SECOND YEAR.—Class I.—Gillean; Cowans (F) and Ewart, equal. Class II.— Byers, Anglin, Donaldson; Burgoyne and Robertson, equal; Cary, Pyke, Buffett. Class III.—Moore (E. V.), Howard (L. O.).

\*Supplemental in Fieldwork.

### THEORY OF STRUCTURES.

FOURTH YEAR. - Class I.-McCarthy. Class II.-Macphail, Anderson, Irving, Matheson. Class III.-Benny and Bond, equal.

THIRD YEAR.—Class I.—Colpitts, Grier, McLean (W. B.) Class II.—Kirkpatrick and Young (W. M.), equal; Archibald (E. M.), Shaw; Denis and Fraser (J. W.), equal; Ewan, Fetherstonhaugh; Cornwall and Dargavel and Hickey, equal; Fraser (C. E.) and Pergau, equal; Burgess; Davidson (W. A.) and Hyde (G. T.), equal; White (J. S.), Bowman. Class III.— Austin and \*Gough and \*Morgan and Peden and Yuile, equal; Hyde (J. C.) and McLeod (N.) and \*Wenger, equal; Campbell; Preston and Wilson (R. M.), equal; Gagnon (L. F.); †MacInnes, \*Van Horne, Nicholls, Parizeau; Fraser (H.) and \*Henderson, equal; Bachand and Moore (W.M.), equal.

### THERMODYNAMICS.

FOURTH YEAR.—(Civil, Electrical and Mining Engineering Courses). Class I.— McCarthy and Maclennan, equal; Cape and Macphail, equal. Class II. —Sheffield, Anderson, Young (G. A.), Ainley, Davis, Irving, Eaves, Butler. Class III.—MacLean (T. A.), Matheson, Scott (J. H.), Atkinson (D. C.T.), Archibald (H. P.); Atkinson (W. J.) and Hillary, equal; Bond Benny. (Mechanical Engineering Course) Class I.—Angel, Laurier Class II.—Waterous,<sup>4</sup> Dean, Patton; Bacon and McRae, equal. Class III.—Thomas, Beatty, Davidson (J. H.), Mackerras.

THIRD YEAR.—Class I.—None. Class II.—McLean (W. B.), Wilson (R. M.) Young (W. M.). Class III.—Denis, Dargavel.

### WORKSHOPS.

- FOURTH YEAR.—Class I.—Patton, McRae, Angel, Mackerras; Davidson (J. H.) and Waterous, equal. Class 11.—Dean; Laurie and Mackie, equal; Bacon, Thomas, Reaves.
- THIRD YEAR. Class I.—Bowman, McLean (W. B.). Class II.—Fraser (J. W.) Young (W. M.), Wilson (R. M.), Fraser (H.), Hyde (J. C.), Shaw, Austin' Denis and Cornwall, equal; Pergau and Dargavel, equal. Class III.— Grier and Hawker, equal; Hickey and Archibald (E. M.), equal; Wenger, Burgess, Fetherstonhaugh, Davidson (W. A.).
- SECOND YEAR.—(Architectural, Civil and Mining Engineering Courses).— Closs I. —None. Class II.—Gillean, Buffett, Burgoyne; Ewart and Staveiey, equal; Anglin and Byers and Cowans (F.) and Moore (E. V.), equal. Class III.—Robertson, Pyke, Cary, Coote, Howard (L. O.). (Electrical and Mechanical Engineering Courses.)—Class I.—Black, Fraser (John W.). Class II.—Arkley, Miller (A. K.); Scott (H. E.) and Smith (G.B.), equal; Shepherd and Walker, equal; Montgomery; Allen and Burwell and Hamilton (G. M.), equal; Paterson, Nelson, Howard (R. F.), Duncan; Forman and Neville and Percy and Scott (G. W.), equal; St. George, Whiteway. Class III.—Millar (J. L.), Osborne, Ogilvie (N. C.), Glassco (J. G.), Hearn.
  - † Suplemental in Paper I

### 328

(

R

M

W M

W

FIRST YE

THIRD YE NO SECOND YE

*I.*--Мо on, Irving,

Lirkpatrick and Fraser gavel and Davidson ass III. nal; Hyde reston and b, Nicholls, and Moore

> Class I.— Class II. g, Eaves, Atkinson ual; Bond il, Laurie, al. Class

m (R. M.)

on (J. H.) ie, equal;

r (J. W.) , Austin, iss III.-

Cleas I. Staveley, ), equal. Electrical er (John ih (G.B.), Burwell (R. F.), ual; St.

(N. C.),

:29

FIRST YEAR.—Class I:—None. Class II.—McLaren (J.), Fry, Fréchette; Burson, and Lowden and McIntosh, equal; Ward (P. W.), Galbraith, Taylor, Wiener, Fraser (D. C.), Peck, Scott (H. M.), Lloyd; Egleson and Gagnon (E.E.) and Schwitzer (T. H.), equal; Clement and DeBlois and Plant and Wells and Wilson (T. A.), equal; Buchanan and Higman and Rolland (L.), equal. Class III.—Edwards and Wakeling, equal; Burchell and Miner, equal; Askwith (C. E.) and Blue and Ogilvie (P.), equal; Ritchie and White (G. V.), equal; Cameron and Cowen (E.A.A.) and McDonald (S.) and Mitchell, equal; Farquharson and Reynolds and Walsh, equal; Brookfield, Ward (R.); Jamieson and Tupper, equal; McKenna; Labatt and Meldrum, equal; Boyd, Flint; Hampson and Wilkins, equal.

### ZOOLOGY.

THIRD YEAR.-(Practical Chemistry Course.)-Class 1.-None. Class II.-None. Class III.-Hutchinson, McLaren (A. J.).

SECOND YEAR.-(Mining Engineering and Practical Chemistry Courses.)-Class I.--None. Class II.-None. Class III.-Buffett, Donaldson, Barber, Moore (E. V.).

# Students of the University.

### SESSION 1897-98.

### MCGILL COLLEGE.

### FACULTY OF LAW.

### FIRST YEAR.

Archibald, Sam. G., B.A.	Montreal	Macalister, A. W. G.,	Danville, Q
Baker, George H.,		Macfarlane, L., B.A.,	Montreal
Burke, Edmund A.,		Mackay, Hugh,	Montreal
Chauvin, Henry A.,		Margolese. Louis,	Montreal
Dobell, Alfred, B.A.,	Quebec	Redpath, Joscelyn C.,	Montreal
Enright, Fred. T.,	Sherbrooke, Q	Sharswood, Wm. F.,	Montreal
Garneau, Leon,		Trihey, Harry,	Montreal
Kay, Wm. F.,		Walsh, Thos. E.,	Montreal

### SECOND YEAR.

Baby, Henri, jun., B.A.,	Montreal	McCabe, Ed. E. P. F.,	Windsor Mills,Q
Ball, Wm. S.,	E. Bolton, Q	McIver, Wm. E.,	Melbourne, Q
Barlow, Jos. C.,	Montreal	Robertson, Wm. G. M.,	B.A.,
Bercovitch, Peter,	Montreal		Sherbrooke, Q
Carter, Wm. F., B.A.Sc.	, Cowansville,Q	Saunders, Frank C.,	Montreal
Décarie, J. N. F., B.A.,		Thomson, Arthur B.,	A ontreal
Drolet, Edmond B.,	Montreal	Thorneloe, Walter E. (	H., B.A., Montreal
Ives, Wm. C.,	Coaticook, Q	Vipond, Ernest E.,	Montreal
Lynch, Walter H.,	Mansonville, Q	Whelan, Joseph,	Montreal

### THIRD YEAR.

Burnet, Arthur, B.A., Fa	arnham	Howard, E. Edwin, B.	A., Philipsburg, Q
	Centre, Q	Iles, Charles,	Montieal
Champoux, Charles, B.A.,	Montreal	Kennedy, John K.,	Montreal
Clay, Samuel, B.A.,	Montreal	Marler, Herbert M.,	Montreal
Elliott, Henry J.,	Montreal	Rogers, Reginald H.,	B.A.,
Hickson, James Claude, B.A.,	Montreal	,	Alberton, P.E.I.
Honan, Cornelius,	Montreal	Semple, G. Hugh,	Montreal

### PARTIAL STUDENTS.

Reeve, Sidney N.,

Chicago, Ill | Seath, Percival K.,

Montreal

Alexander, Bayfield, T. Beatty, H.' Belanger, E Beil, A. J. Bishop, L. ( Bishop, L. ( Bishop, L. ( Bishe, J. J. Borden, H. ] Bradshaw, J. Bringes, J. A Bringes, J. A Bringes, J. A Bruce, J., B Burton, H. T. Butler, P. E. Galbec, K. D Campbell, R. Cantlie, F. P. Contison, H. M Collison, J. I. Crang, F. W. Crowell, B. C. Cullison, J. H. Dalton, C. H.. Plickson, W. H Donovan, J. W. Ellis, R. L., Yo Fearn, C. J., Mi Featherston, H. Fluer, H. T., H "Gardner, R. L., M Featherston, H. Fluer, H. T., H "Gourley, H. A., Grant, W. W., Marley, R. J. O. Harper, A. A., N Hope, J. T., Glee Howard, A. C. P. Hughes, H. J., C Hunter, E. N. Mc Jones, J. H., Brou Ker, R. H., B. A., Lamb, H. A., Port "Learmonth, G. E., Leggett, T. H., Ott \*Double Course. †Partial,

# FACULTY OF MEDICINE <text>

331

### FIRST YEAR.

Danville, Q Montreal Montreal Montreal Montreal Montreal Montreal Montreal

dsor Mills,Q [elbourne, Q

erbrooke, Q Montreal ontreal ,Montreal A Montreal Montreal

> ilipsburg,Q Montieal Montreal Montreal

rton, P.E.I. Montreal

Montreal

\*Double Course.

+Partial,

ALDICINE
CEAR.
Nackay, M., B.A., Montreal, Que Mackenzie, S. D., Sarnia, Ont Mackarie, S. D., Sarnia, Ont Machaer, E. F., Bedford, Que McDonald, C. A., Miltown, N. B. \*
\*McDonald, P.A., Dundee Centre, Que
\*McEwen, J. R., Dewittsville, Que McKay, D. S., Reserve Mines, C. B., MeNeil, J. W., Kensington, P. E. I
\*McPherson, T., Stratford, Ont Martin, E. A., Kemptville, Oat Meighen, W. A., Perth, Ont Miller, G. H. S., Alexandria, Ont
\*Miter, G. H. S., Alexandria, Ont
\*Muroe, A. T., Moose Creek, Ont
Muroe, K. S., London, Out
Paquin, U., B. A., St. Eustache, Que
Paquin, U., B. A., St. Eustache, Que
Rewoombe, W. E., Vancouver, B. O.
Nives, K. S., Condon, Out
Paquin, U., B. A., St. Eustache, Que
Rewoinse, W. T., Montreal, Que
Rever, S. N., Chicago, Ill., U. S. A.
Ritchie, C. F. Montreal, Que
Robertson, C. G., Hawkesbury, Ont
Robertson, C. G., Hawkesbury, Ont
Robertson, W. G., Montreal, Que
Robertson, W. G., Montreal, Que
Robertson, W. G., Montreal, Que
Ruther'. rd. C. A., Waddington, N. Y.
Sanders, C. W., Kemptville, Ont
Sanders, C. W., Kenpiville, Ont
Sanders, C. W., Kenpiville, Ont
Sanders, C. W., Kemptville, Ont
Sanders, C. W., Kemptville, Ont
Sanders, C. W., Kemptville, Ont
Sanders, C. W., Theard's Content, Mad
Steward, G. L., Havelock, N. B
Sa

### 332

### SECOND YEAR.

†Ackerley. A. W. K., Montreal, Que Almon, W. B., Halifax, N.S Anton, D. L.S., Powerscourt Castle, Ire-ter and Control of Control Ackerrey, A. W. K., Montreal, Que Almon, W. B., Halifax, N.S.
Anton, D. L.S., Powerscourt Castle, Ire-land
Armstrong, J. W., B.A., Bristol, Que 'aird, J. A., Brucefield Ballantyne, C. T., Ottawa, Ont Barry, F. A., Montreal, Que Bishop, T. E. Harvey, N.B.
Boire, W., Manchester, N.H., U.S.A.
Bonner, J. A., New York City, U.S.A.
Brown, E. L., Chesterville, Ont Buffet, C., B.A., Grand Bank, Nfd Burnett, P. Montreal, Que Campbell, O. E., Apohaqui, N.B.
Cartwright: C., Kingston, Ont Charton, G. A., Montreal, Que
Charron, A., Ottawa, Ont
Charton, G. A., Montreal, Que
Codees, H. W., F. Nort Hope, Ont
Costees, H. W., F. Northelo, Que
Costello, A. E., Montreal, Que
Donaldson, A. S., Montreal, Que
Dowler, O., Billings' Bridge, Ont
Duff, P. F., Charlottetown, P.E.I.
Fagar, W. H., Dartmouth, N.S.
Gibson, E. J., Charlottetown, P.E.I.
Fagar, W. H., Dartmouth, N.S.
Gibson, F. J., Campbeliford, Ont
\*Giday, A.L.C. Montreal, Que
\*Goodall, J. R., Ottawa, Ont
Hall, W. T., Montreal, Que
\*Goodall, J. R., Ottawa, Ont
Hall, W. T., Montreal, Que
\*Goodall, J. R., Ottawa, Ont
Hall, W. T., Montreal, Que
\*Haszard, C. F. L., Charlottetown, P.E.I.
Johnston, E. H., Washington, Ont
Hall, W. T., Montreal, Que
\*Harie, S. K., B.A., Newport, N.S.
Haszard, C. F. L., Charlottetown, P.E.I.
Johnston, A., Leeds, Que
Johnston, A., Leeds, Que
Johnston, A., Leeds, Que
Johnston, A., Leeds, Q SD YEAR.
Kating, H. T., Montreal, Que fawlor, F. E., Dartmouth, N.S. Lester, C. W. S. Durham, Que litti, J. V., Davenport, Iowa, U.S.A. Iynei, J. B., Fredericton, N.B. MacKinnon, J. W., Charlottetown, P.E.I. Macherson, C. St. John's, Nid McConnell, R. E., Montreal, Que Molmanid, W. F., Westville, N.S. McSee, S. H., B.A., Fredericton, N.B. McSee, S. H., B.A., Fredericton, N.B. McSee, S. H., B.A., Fredericton, N.B. McSee, S. M., S. Montreal, Que Molmid, W. F., Westville, N.S. McSee, S. M., S. Montreal, Que Molmand, W. F., Westville, N.S. McSee, S. M., Turro, N.S. O'Reilly, E. P. B.A., Hamilton, Ont O'Nilvan, M. T., Little Glace Bay, C. B Aintin, A. C., Mansonville, Que Paterson, W. F., B.A., Montreal, Que Morisson, G. D., Vankleek Hill, Ont Morrison, A. S., Montreal, Que Morrison, A. S., Montreal, Que Morrison, M. S., Little Glace Bay, C. B Aintin, A. C., Mansonville, Que Paterson, W. F., B.A., Montreal, Que Paterson, W. F., B.A., Montreal, Que Morrison, A. S., Montreal, Que Morrison, M. S., Marysville, N.B. Rose, H. B.A., Montreal, Que Morrison, S. S., Montreal, Que Morrison, M. S., Montreal, Que Monte, F. S., Powassan, On Morrison, M. Montreal, Que Monte, M. M., Montreal, Que Monte, M. M., Montreal, Que Monte, M. M., Monteret, M.B. Maumesey, C. R., St. Stephen, M.B. Maughesey, C. R., At Stephen, M.B. Maughesey, C. R., Mantreal, Que Monte, M. M., Montereal, Que Monte, M. M., Montereal, Que Monte, M. M., Maughese, M.S. Maughesey, C. R., At Menterea, Maughese Monte, M. M., Maughese, M.S. Maughes

### THIRD YEAR.

Alley, G. T., Charlettetown, P.E.I Aylmer, A. L., Montreal, Que Beadie, W. D., Lachine, Que Bowles, C. T., Ottawa, Ont Bradley, J. H., Charlottetown, P.E.I Brannen, J. P., Montreal, Que Brennan, F. A., St. Albans, Vt., U.S.A

\* Double Course. † Partial.

Brown, W. F., B.A., Plattsburg, N.Y., Browning, W. E., Exeter, Ont. Burnett, W. B., B.A., Montreal, Que Burnett. P., Montreal, Que Burris, J. S., Halifax, N.S Cameron, L. G., Cascades, Que Campbell, V. B., Finch, Ont

Casselman, I Casselman, I Conroy, R. J Craig, J. E., Cumming, W Cunningham Cunningham Cuzner, G., ( Darche, C. E Drier, N. E., Dyer, E. O., 1 Fitzgerald, C Fourney, F. Fuller, G. F. Galbraith, W Gillis, E. G., Gordon, A. H Gray, C. F. A Greene, E., L Higgins, C. P. Jones, D. C., Law, R., Otta Levy, A., B. A Levy, A., B.A. Lineham, D. Loeb, A. A., Logie, A. E., ( Love, R. H., C Macdonald, J. MacConaid, J. MacCombe, J. McCombe, J., McDougall, A. McIntyre, J. 1 McKay, J. G., McKachnie, W McNally, D. A McNaughton, 1

Banfill, S. A., Barlow, W. L., Bartlett, G. W. Bayfield, G. E. Bearman, G. P. Beattie, K. F., Bell, J., New G Blackett, J. W. Brears, C. F., F. Brown, C. H., Corbet, G. G., Coreoran, J. A. Covert, A. M., G Cushing, H. B., Dalpé, W. H., F. Darché, J. A., S Davidson, C., M. Deane, R. B., M Dickson, S. M., Duncan, R. G., Duval, J. L., Gri Fagan, G. A., B Fawcett, R. F. maica, B.W. Finnie, J. H., M Forbes, A. M. T. Fox, A. C. L., W Francis, B., Sydn Fraser, F. C., B. Galdois, F. A., S Gillies, B. W. D. Gladman, E. A., Grace, N., Montre

Que , N.S , Que owa, U.S.A , N.B tetown, P.E.I 's, Nfld Ont al, Que lle, Ont lle, N.S vricton, N.B , B.C ue

Que t Hill, Ont

llton, Ont nt lace Bay, C. B e, Que ntreal, Que ill, Ont V.S , Jamaica, B.

I.S.A

le, Ont it N.B bucto, N.B .S yue sville, N.B Mass., U.S. al, Que int phen, N.B tte, Ont , Que Ont ae Mills, Que

N.S ec City, Que ty, N.Y 'ermont ie ', N.B ace, Ont

sburg, N.Y., nt. real, Que

ue

3: Casselman, P. C., Morrisburg, Ont Conroy, R. J., Peterboro, Ont Craig, J. E., North Gower, Ont Cumming, W. A., Buckingham, Que Cunningham, A. A., Huntingdon, Que Cunner, G., Ottawa, Ont Darche, C. E., B. L. Danville, Que Drier, N. E., Woodstock, N.B Dyer, E. O., B.A., Sutton, Que Fitzgerald, C. T., Harbor Breton, Nfld Fourney, F. W., B.A., Montreal, Que Galbraith, W. S., Lethbridge, Alberta Gillis, E. G., Indian River, P.E.I Gordon, A. H., St. John, N.B Græy, C. F. A., Montreal, Que Gaeone, E., Leitrim, Ont, Higgins, C. P., Victoria, B.C Jones, D. C., Maitland, Ont Law, K., Ottawa, Ont Levy, A., B.A., Montreal, Que Logie, A. E., Charlotteiown, P.E.I Love, R. H., Carleton Place, Ont Macdonald, J. S., Montreal, Que MacKenzie, C. A., Toronto, Ont McCombe, J., Iberville, Que McDougall, A., Kippen, Ont McIntyre, J. G., Moorewood, Ont McKay, J. G., Moorewood, Ont McKay, J. G., Moorewood, Ont McKay, J. C., Marquette, Man McNally, D. A., Abram's Village, P.E.I McNaughton, F.M.A., B.A., Huntingdon

McNiece, T. G., Carsonby, Ont Mellon, P. B., Ottawa, Ont Motris, T. E., St. John, N.B Mousseau, E. A., Hall, Que Murphy, E. F., St. John, N.B Mussen, A. T., Montreal, Que Nash, A. C., Ogdensburg, N.Y., U.S.A Nicholson, F. J., B.A., Victoria, B.C Noble, E. C., Potsdam, N.Y., U.S.A O'Brien, J. R., B.A., Ottawa, Ont Paterson, A., B.A., Montreal, Que Peake, E. P., B.A., Oshkosh, Wis., U.S.A Peppers, H. W., B.A., Frederieton, N.B Pittis, H., Plainfield, N. J., U.S.A Ross, S. A., Hintonburg, Ont Ross, W. J., Martintown, Ont Ryan, G. H. W., Montreal, Que Scott, J. F., D.V.S., Montreal, Que Shore, R. A. A., B.A., Toronto, Ont Snyder, A. E. W., Coaticoke, Que Sparrow, C. J., Alexandria, Ont Sutherland, W. H., Sea View, P.E.I Symmes, C. R., Aylner, Que Thompson, G. H., North Sydney, C.B Tooke, F. T., B.A., Montreal, Que Trites, C. B., Petit Codiac, N.B. Turnbull, T., Stratford, Ont Wilkins, F. F., Montreal, Que Wilkins, W. A., Montreal, Que Witherbee, W. D., Potsdam, N.Y., U.S.A Wood, D. F., Faribault, Minn., U.S.A Wood, J. H. M., Montreal, Que Woodley, J. W., Rockland, Ont

### FOURTH YEAR.

Fourth Banful, S. A., Magog, Que Barlow, W. L., B. A., Montreal, Que Barlow, W. L., B. A., Montreal, Que Barlow, M. K., Brigus, Ndu Baydeld, G. E., Charlottetown, P.E. I. Beamman, G. P., Bell's Corners, Ont Beattie, K. F., Montreal, Que Blacket, J. W., Ormstown, Que Brears, C. F., Regina, Assa Brown, C. H., B.A., Carleton Place, Ont Corber, G. G. S. L. John, N.B. Cororan, J. A., Warden, Que Overt, A. M., Grand Manan, N.B. Cushie, H. B., B.A., Montreal, Que Date, M. H., B.A., Montreal, Que Date, A. J., Newtone, Que Date, J. A., Sherbooke, Que Date, M. H., B.A., Montreal, Que Date, S. M., B.A., Montreal, Que Date, S. M., B.A., Montreal, Que Date, M. H., Montreal, Que Mande, M. H., Montreal, Que Mande, H. M., Montreal, Que Mande, H. M., Montreal, Que Mande, M. H., Montreal, Que Mande, H. M., Montreal, Que Mande, M. C., Mentreal, Que Mande, M. C., Mentreal, Que Mande, M. H., Montreal, Que Mande, M. H., Montreal, Que Mande, M. H., Montreal, Que Mande, M. C., Mentreal, Que Mande, M. C., Mentreal, Que Mande, M. M., Montreal, Que Mande, M. M., Montreal, Que Mande, M. H., Montreal, Mande, M. H., Montreal, Que Mande, M. H., Montreal, Mande, Mande,

YEAR. Harvey, F. W., B.A., Abercorn, Que Houston, J. C., New Glasgow, P.E., Hudson, H. P., Chelsea, Que Janke, G. W. L., Leeds, Que Janke, F. Stater, Montreal, Que Jankeson, W. R., Ottawa, Ont Jones, F. B., Montreal, Que Lang, A. A. J., Almonte, Ont Long, C. B., Whitehall N. Y Lynch, W. W. Knowiton, Que Macaulay, J. F., St. John, N. B. MecAee, J. A., B. A., Windsor Mills, Out McAellister, D. H., B.A., Belleisle, N.B. McLaren, R. W., St. Raphael's, Ont McLaren, R. W., St. Raphael's, Out McLaren, R. W., St. Raphael's, Out McLanen, J. N., Sarnia, Ont McLenan, P. A., Lancaster, Ont McLenan, P. A., Lancaster, Out McMurtry, A. L., Bowmanville, Ont Money, M. J., Invernes, Que Myers, D. A., Prentice, Wis, U.S.A. Ogity, C., B.A., Montreal, Que Myers, D. A., Prentice, Wis, U.S.A. Ogity, C., B.A., Montreal, Que Myers, D. A., Prentice, Wis, U.S.A. Ogity, C., B.A., Montreal, Que Myers, D. A., Prentice, Wis, U.S.A. Ogity, C., B.A., Montreal, Que Myers, D. A., Prentice, Wis, U.S.A. Ogity, C., B.A., Montreal, Que Myers, D.A., Prentice, Wis, U.S.A. Ogity, C., B.A., Montreal, Que Myers, D.A., Prentice, Wis, U.S.A. Ogity, C., B.A., Montreal, Que Myers, D.A., Prentice, Wis, U.S.A. Ogity, C., B.A., Montreal, Que Myers, D.A., Prentice, Wis, U.S.A. Ogity, C., B.A., Montreal, Que Myers, D.A., Prentice, Wis, U.S.A. Of Shaughnessy, L. J., Oldham, N.S. Patterson, R. U., Baltimore, M.G., U.S.A. Patterson, R. U., Baltimore, M.G., U.S.A. Patterson, W. H. Peterborough, Ont Patterson, W., B.A., Ottawa, Ont

### 333

Rajotte, E. C. F., Montreal, Que Robertson, D. McD., Perth, Ont Rose, W.O., Lakeville, P.E.I Rutherford, R. M., Hawkesbury, Ont Scanlan, Harry, Gloucester, Mass, U.S.A. Schwartz, H. J., Quebec city, Que Sihler, W. F., Simcoe, Ont

Smith, A. M., B.A., Petit Codiac, N.B. Stockwell, H. P., Danville, Que Telford, R., Valens, Ont Tiffany G. S., Alexandria, Ont Walker P. McH., Grafton, N. D., U.S.A West J., Montreal, Que Whitton, D. A., Ottawa, Ont

### GRADUATES.

McElroy, A. S., M.D., Montreal, Que Main, C. G., M.D., Edmundston, N. B Mitchell, Wm, M. D., Quebec, Que Moriarty, J. W., M.D., Churubusco, N. Y O'Neill, J. W., M.D., Mooer's Forks, N. Y Pater, H. K., M.D., Pittsfield, Mass Pearson, J. E., M.D., Sylaconga, Ala Rielly, W., M.D., Montreal, Que Ranuey, E. O., M.D., Barton Landing, N. Y Rodger, D. A., M.D., Montreal, Que Sharp, J. C., M.D., Marysville, N.B Sprague, W. E., M.D., Belleville, Ont Williams,-, M. D., Montreal, Que Yonker W., M. D., Belleville, Ont

### FACULTY OF ARTS.

### Undergraduates.

### FIRST YEAR.

Montreal H. S.

### School. Albert College, Montreal Dioc. Theol. College, Peninsula, Gaspé, Q Waterloo, Q Waterloo Academy, Picton H. S., Demorestville, O Barbadoes, W. I Dufferin Gram. S., Brigham, Q., Montreal H. S., Prince of Wales College, P.E.I., Montreal Little York, P.E.I Carruthers, Chris., Chipman, Warwick F., Cole, G. Percy, Montreal Dioc. Theol. College, Aylwin, Q Montreal Abingdon School, Montreal, Montreal, H. S., Montreal Copeman, Joseph Hodge, Cotton, Wm. U., Quebec H. S., Feller Inst., Grande Ligne, Q., Huntingdon Academy, Sweetsburg, Q Allan's Corners Montreal Coll. Institute, Montreal Montreal H. S., Montreal Abingdon School, Montreal, Montreal Montreal Coll. Institute, Prince of Wales Coll., P.E.I., Westmount, Montreal Vernon Bridge, P.E.I Montreal Dioc. Theol. Col., Rawdon, Q Kemptville H.S., North Gower, O Montreal H. S., Montreal Huntingdon Academy, Dewittville, Q Glencee H. S., Prince of Wales Coll., P.E.I., Montreal H.S., Strathburn,

### Mount, Hec Mowatt, Jos Mowatt, . Ness, Wm. Neville, Ja Darker, Da Parker, Da Scott, Wm. Scrimger, F Stephens, L Sterns, H. E Strong, Nor. Tees, Fred. Viner, Norn White, Geo. White, D. R Williams, Hy

Nai MacNaugh McPherson Mitchell, Is Moffatt, Ch Molson, Per

Ainley, Laur Baker, Georg Charters Her Cochrane, Do Cohen, Abral Cooke, H. Les Crack, Isaac Crowell, Bown DeWitt, Loop DeWitt, Jacol Davies, Nelson Dickson, W. I Dixon, James Dorion, W. A. Elder Robert, Ells, Sydney C Ferguson, Coli Forbes, Wilfrid

Williams, J. Wilson, Thos

Goodhue, Harr Grier, Geo. W., Hardy, Charles, Horsfall, Frank Ireland, A. Au Jeakins, Charle Johnson, J. Gu Luttrell, Hy. P McCormick, A Mackinnon, Cec Macmillan, Cyr Mathers, Wm. F Mitchell, Sydne Newson, Wm. V

334

Anderson, D. P., B.A., M.D., Montreal, Que

Bazin, A. T., M.D., Montreal, Que Burnett, J. U., M.D., Sussex, N. B Boone, S. W., B.A., M.D., Presque Ile, Boone, S. Maine

Maine Church, H. M., M.D., Montreal, Que Foster, A. L., M.D., Ottawa, Ont Finnimore, D. W., M.D., Potsdam, N. Y Fyfe, Mary, M. D., Montreal, Que Gibson, T., M. B. C. M., Ottawa, Ont Jakes, R. W. M.D., Greenwood, B.C Mackenzie, W. D., M.D., Parrsboro, N.S Macdonald, Helen, B.A., M.D., Montreal, Que Que

Name.

Anderson, Richard, Ascah, Robt. G.,

Barrington, Fred. H., Boulter, J. Henry, Bourne, Jas., Brown, Atbert V., Brown, Edwin O., Carruthers, Chris.

Dickson, Norval, Evans, L. Thornton,

Harper, Robt. J., Hickson, Robt. N., Ireland, F. Chas.,

McDonald, John,

McEwan, John R., McLean, Kenneth, McLeod, Angus B.,

McMurtry, Gordon O., McMurtry, Shirley O.,

Irving, George, Lindsay, J. Edwin, Lochead, Arthur W.,

# Residence.

Quebec

Springton, P.E.I

RA

Montreal

Montreal

liac, N.B. Que nt N. D., U.S.A

t

al, Que on, N. B c, Que ibusco, N. Y Forks, N. Y , Mass iga, Ala ue anding, N. Y val, Que e, N. B ille, Ont Que Ont

dence.

nlis, Assa Gaspé, Q aterloo, Q estville, O loes, W. I Montreal ork, P.E.I Aylwin, Q Montreal Montreal Quebec tsburg, Q · Corners Montreal Montreal Montreal Montreal ge, P.E.I awdon, Q Gower, O Montreal ttville, Q hburn, Q m, P.E.I Montreal Montreal

### 8.3

Name. MacNaughton, Wm. G., McPherson, Thos., Mitchell, Isaiah Edward, Moffatt, Chas., Molson, Percival, Mount, Hector, Mowatt, Jos. A., Ness, Wm. Huntingdon, Neville, Jas., Parker, Dan. T., Scott, Wm. J., Scrimger, Francis A. C., Stephens, Laurence, Sterns, H. Edgar, Strong, Norman W., Tees, Fred. J., Viner, Norman, White, Geo. D., White, D. Roderick, Williams, Hy. S., Williams, J. Manville, Wilson, Thos. J.,

Ainley, Lauresce, Baker, George P., Charters Herbert. Cochrane, Donald, Cohen, Abraham, Cooke, H. Lester, Crack, Isaac E., Crowell, Bowman C., DeWitt, Jacob, Davies, Nelson C., Dickson, W. Howard, Dixon, James D., Dorion, W. A., Elder Robert, Ells, Sydney C., Forguson, Colin C., Forbes, Wilfrid, Goodhue, Harry,

Goodnue, Harry, Grier, Geo. W., Hardy, Charles, A., Horsfall, Frank L., Ireland, A. Austin, Jeakins, Charles E., Johnson, J. Guy W., Luttrell, Hy. P., McCormick, Alex, S., Mackinnon, Cecil G., Macmillan, Cyrus J., Mathers, Wm. R., Mitchell, Sydney, Newson, Wm. V.,

# 335

School. Residence. Huntingdon, Q Stratf rd, O Huntingdon Academy, Collegiate Inst., Stratford, Private Tuition, Sherbrooke, Q Montreal H. S., Montreal Montreal H. S., Montreal Dioc. Theol. Coll., Montreal Montreal Montreal H. S., Huntingdon Academy, Montreal Howick, Q Huntingdon, Q Cambria, Q Huntingdon Academy, Lachute Academy, Montreal H. S., Montreal Montre 1 H.S., Montreal Clifton College, Eng., Prince of Wales Coll., P.E.I., Montreal Charlottetown, P.E.I Waterloo Academy, Cambria, Q Montreal H. S., Montreal Montreal Montreal H. S. Jameson ave. Coll. Inst., Toronto, Trenton, O Huntingdon Academy, Huntingdon Q Knowlton, Q Montreal H. S., Watford H. S., Montreal Dioc. Theol. Coll., Watford, Ont Shawville, Q

### SECOND YEAR.

Almonte H, S.,	Almonte, O
St. Paul's School, Concord, N.	H., Yarmouth, N.S
Montreal H. S.,	Montreal
Montreal H. S.,	Montreal
Montreal H. S.,	Montreal
Montreal Collegiate Institute,	Montreal
St. Francis Coll., Richmond,	Kingsbury, Q
Milton H.S., Yarmouth, N.S.,	Yarmouth, N.S
Montreal Coll. Institute,	Montreal
McGill Normal School,	Bedford, Q
Pembroke H.S.,	Pembroke, O
St. John's School,	Montreal
McGill Normal School,	Montreal
Huntingdon Academy,	Trout River, Q
Ottawa Collegiate I.stitute,	Ottawa, Ö
Prince of Wales Coll., P.E.I.,	Marshfield, P.E.I
Prince of Wales Coll., P.E.I.,	Vernon River Bridge, P.E.I
Institute Feller,	Danville, Q
Montreal Collegiate Institute,	Montreal
Prince of Wales College, P.E.I	., Fortune Cove, P.E.I
Montreal Collegiate Institute,	Montreal
Montreal Diocesan Theol. Coll.	. Montreal
Huntingdon Academy,	Huntingdon, Q
Montrea! Collegiate Institute,	Montreal
Montreal H.S.,	Montreal
Abingdon School,	Westmount, Montreal
Bishop's College School,	Cowansville, Q
Prince of Wales Coll., P.E.I.,	Charlottetown, P.E.I
Grammar School, St. John, N.E	
Montreal H.S.,	Montreal
Prince of Wales Coll., P.E.I.,	Charlottetown, P.E.I

### Name.

Nutter, J. Appleton, Radford, E. Alan, Reford, Lewis, Ritchie, Charles F., Rowat, T. Alex., Rowell, Arthur H., Scott, George W., Scott, Harry E., Smith, F. Napier, Walker, Horatio, Walker, John J., Weinfield, Henry, Willis, Samuel J., Woodley, Edward C.,

A

N

### School.

336

Montreal H.S., Abingdon School, Montreal. Montreal Collegiate Institute, Montreal H.S., Huntingdon Academy, McGill Normal School, Montreal H S., Napanee Collegiate Institute, Bishop's College School, Quebec H. S., Huntingdon Academy, Montreal H.S. Prince of Wales Coll, P.E.I., Montreal H.S.,

### THIRD YEAR.

### Name. Residence. Residence. Name. Brown, Walter G., Bruce, Guy O. T., Cotton, Chas. M., Cumming, W. Gordon, Dixon, Wm. E., Duggid Babert C. Athelstan, Q Laurie Ernest, Lundie, John Alex., Montreal Lundie, John Alex., McClung, Robert K., Kingsbury, & McDonald, Paul A., St. Agnes de Dundee MacKay, Hector, Ripley, O Destram S., London, O P.E.I Montreal Huntingdon, Q Sweetsburg, Q Montreal MacKay, Hector, McKenzie, Bertram S., McLeod, John B., Munro, Thos. A., Patch, Frank S., Montreal Duguid, Robert C., Montreal Ells, Hugh, Gardner, R. Lorne, Goodall, James R., Springton, P.E.I Ottawa Brockville, O Montreal Mont real Ottawa New Durham, O Marshfield, P.E.I Hardisty, Richard, Montreal Heeney, Wm. Sertal Danford Lake, Q Henderson, Ernest H., Franklin Centre Rice, Horace G., Montreal Robertson, Lemuel, Dunbar, O Stewart, Donald, Holland, Thos. B., Thompson, James E., Coaticook London, Eng Johnson, R. De Lancey, Montreal Montreal Wainwright, Arnold, Keith, Henry J., Smith's Falls, O White, E. Hamilton, Montreal Yule, George, Larmouth Geo. E., Montreal Scotland

### FOURTH YEAR.

Bates, George E., Lanark, O	Moore, Percy T., Montreal
Bishop, W. Gordon, Montreal	Munn, D. Walter, Quebec
Blyth, R. B., Belwood, O	Paterson, Robert Childs, Montreal
Campbell, J. Aug. Ewat, Montreal	Place, Edson G., Millington, Q
Colby, John Child, Stanstead, Q	Prudham, W. W., Waterdown, O
Dalgleish, R. Wallace, Huntingdon, Q	Ross, Arthur B., Montreal
Duff, Alex. H., Montreal	Ship, Moses L., Montreal
Gardner, William A., Huntingdon, Q	Stephens, J. G., New Rocklands, Q
Gilday, Arch. L. C., Montreal	Stuart, James A., Montreal
Grace, Arch. H., Montreal	Tarlton, B. B., Montreal
Heine, M. Casewell, New York City	Thomas, J. Wolferstan, Montreal
Leney, John Muirhead, Montreal	Thompson, Jas. R., Kinnear's Mills, Q
McConnell, Robert Ernest, Montreal	Todd, J. L., Victoria, B. C
McGregor, Jas. Albert, Huntingdon, Q	Turner Henry H., Appleton, O
MacLeod, Hy. S., Dunstaffuage, P.E.I	Turner, William D., Appleton O
Maclaren, A. Henderson, Huntingdon, Q	Vineberg, Abraham, Montreal
Meyer, John B., Montreal	Worth, Fulton J., Wellington, B.C

### Residence.

Montreal Montreal Montreal Athelstan, Q Montreal 'Montreal L'ile d'Orléans, Q Ormstown, Q Montreal Kingston, P. E.I Montreal

### A Stu dent. The fig takes a class

### Name. Allen, Aml Anderson, Angell, Ern Bishop, Les Blythe, J. J Boyd, Rober Eradford, W Briggs, John Brodie, Hug Brown, Asa Cairns, Hug Coulin, J. 1 Cruchon, Ci Demole, Joh Dempsay, W Donnelly, Wi Down, Georg Dubois, Hy. Edgar, John rguson, Al Gilmour, C. Graham, Rob Greenaway, R Greig, John G Halpenny, E. Hopkin, Robe

Anderson, (1) Barker, A Blythe, J. (1) Blythe, Burke, Ma Cameron. Campbell, Colborne, J Crabb, Geo Douglas, F Evans, W. Greig, John Halpenny, Harding, Al Hicks, Robe (1) Johnston, J (1) Lough, Dan McInnes, Fi

Masson, Wn Mick, D.,

# ndence.

Montreal Montreal Montreal theistan, Q Montreal 'Montreal Orléans, Q nstown, Q Montreal iton, P.E.I Montreal

# lence.

Montreal Montreal gsbury, Q de Dundee Ripley, O Jondon, O Jon, P.E.I Montreal arham, O ld, P.E.I bunbar, O Joaticook Montreal Montreal Scotland

> Montreal Quebec Montreal ngton, Q down, O dontreal lands, Q fontreal fontreal Mills, Q tia, B. C leton, O oleton O tontreal ton, B.C

# 337

# Partial Students.

ė

A Student who is not an Undergraduate, or Graduate, is called a Partial Student. The figure (1), (2), or (3), prefixed to a name, indicates that the Student takes a class in the corresponding year as well as in that where the name is found.

# FIRST YEAR.

Name.	Residence.	Name.	Residence.
Allen, Ambrose,	Kemptville, 0	Hosmer, Elwood B.,	Montreal
Anderson, Fred. J.,	Montreal	Hosmer, Elwood B., Lapointe, C., Lough, Dan. A,	Montreal
Angell, Ernest E.,	Mooers, N.Y	Lough, Dan. A ,	Ottawa, O
Bishop, Leslie C.,	Marbleton, Q	McLeod, Norman V.,	Granby, Q
Blythe, J. J.,	Montreal	McNaughton, Ernest A	
Boyd, Robert M.,	Belleville, O	Mathieson P., Fo	
Eradford, W. G.,	Montreal	Mitchell, Walter G., I	
Briggs, John A.,	New Westminster	Mosgrove, E. J. W.,	Mosgrove, O
Brodie, Hugh H.,	Montreal	Munroe, William.	Woodstock, O
Brown, Asa I.,	Sombra, O	Ogilvie, Lorne C.,	Montreal
Cairns, Hugh G.,	Sawyerville, Q	Parking Edgar R	Montroal
Coulin, J. Edward,	Montreal	Penhallow, D. Pearce,	Montreal
Cruchon, Charles,	Montreal	1 05001,,	montreat
Demole, John E.,	Montreal	Price, Joseph, Can	pbelltown, N.B
Dempsay, William	B., Calabogie, O	Purves, Reginald W., 1	North Sydney, C.B
Donnelly, William H		Reeve, Sydney N.,	Montreal
Down, George Wm.	, Newport, O	Rondeau, A. G.,	Hull City, Q
Dubois, Hy. J.,	St. Elizabeth, Q	Runnells, A. E.,	Egypt, Q
Edgar, John H.,	Montreal	Shepherd, Ernest G.,	Montreal
Serguson, Arthur 1		Swinton, James,	Rockton, O
Gilmour, C. R.,	Brockville, O	Tanner; Agenor H.,	Joliette, Q
Graham, Robert,		Taylor, Alf. M.,	Montreal, Q
	Brandon, Hamilton, O	Tippett, Ernest H.,	North Bay, O
Greig, John G.,	Montreal	Watson, Hugh,	Montreal
Halpenny, E. Wesl	ley, Bear Brook, O	Webster, L. B. B.,	Kentville, N.S
Hopkin, Robert,	Montreal	Williamson, A. W.,	Shawbridge, Q

### SECOND YEAR.

(1)	Anderson, Fred J.,		1	Miller, John H.,	Cashel, O
	Barker, Arthur,	London, O		Milson, Walter E.,	Glanworth, O
(1)	Blythe, J. J.		(1)	Mitchell, Walter G.	
(	Burke, Maurice N.,	Montreal		Morrow, Chas. W.,	Strathroy, O
	Cameron, Arch. G.,	Montreal	(1)	Munroe William,	
	Campbell, J. D.,	Leaksdale, O	0.000	Oke, Jno. J.,	Oka, Q
	Colborne, Jas. H.,	Hyndman, O	.(1)	Parkins, Edgar R.	
	Crabb, Geo. J.,	Pembroke, 0		Powell, Thomas,	Almonte, 0
	Douglas, Fred C.,	Montreal	(1)	Reeve, Sydney N.	
	Evans, W. G.,	Tiverton, O	(1)	Runnells, A. E.	
(1)	Greig, John G.		1.1.1.8	Secord, Albert, N	ew Durham, O
(1)	Halpenny,' E. Wesle	v	1.000	Shaw, Leonard D.,	St. John, N.B
	Harding, Albert E.,	London, O	(1)	Shepherd, Ernest G	
	Hicks, Robert,	Exeter, O	1		St. John, N.B
	Johnston, J. L.,	Toronto, O	1.00	Thom, Geo. W	
(1)	Lough, Dan. A.	, -	1.0	Trenholme, Harold	W., Montreal
	McInnes, Finlay, S.	Kinloss, Luck-	1	Wiggins, M. E.,	Malakoff, O
		now, O	12.5%	Williams, Walter J.	
	Masson, Wm. D., St		(1)	Williamson, A. W.	
•	Mick, D.,	Micksbug, O	1 (		

W

# 338

# THIRD YEAR.

Name.	Residence.	Name.	Residence.
) Angell, Ernest E.	1 1	Millson, Walter ]	E.
Bartlett, L.) So	outh London, 0	) Morrow, Charles	W.
Blythe, J. J.	1	Oke, John J. Powell, Thomas	
Bonin, Alex. L.,	Montreal (	) Powell, Thomas	
) Crabb, George J.		) Shaw, Leonard D.	
		Stovel, R. W. (1	B.A.Sc), Minnea-
Down, George Wm		p	olis, Minn., U.S.
Harding, Albert E.	1	) Tippett, Ernest H	ι.
McInnes, Finlay	(2	Wiggins, M. E.	
Miller, John H.	(1	Williamson, A. V	v.
	FOURTH Y	EAR.	1.1
) Anderson, Fred J.		McGregor, George	Montreal
Bartlett, L.		34 3771331	
Bonin, Alex.	(3	Mick, D.,	<i>D</i> .
) Bradford, W. G. ) Cairns, Hngh G.			E.
2) Cameron, Arch. G.		Oke, Jno. J.	
Campbell, J. D.		B) Powell, Thos.	
Colborne, Jas. H.	9	Runnells, A. E.	
<ol> <li>Campbell, J. D.</li> <li>Colborne, Jas. H.</li> <li>Crabb, Geo. J.</li> </ol>		<ul> <li>Runnells, A. E.</li> <li>Tippett, Ernest I</li> <li>Wiggins, M. E.</li> </ul>	T )

(3)Dorion, George win.MontrealFarrell, Chas.,Montreal(2)Halpenny, E. Wesley(2)Lough, Dan. A.

B. A.

Coburn, David N., Upper Melbourne, Q Macmillan, T. R., Newhaven, P.E.I Keith, Neil D., Glencoe, Ont Scrimger, J. Tudor, Montreal

# DONALDA DEPARTMENT.

### SPECIAL COURSE FOR WOMEN.

# Undergraduates.

FIRST YEAR.	
School.	Residence.
Montreal G. H. S.,	Montreal
Montreal G. H. S.,	Montreal
Montreal G. H. S.,	Montreal
McGill Normal School,	Montrea!
Westmount Academy,	Westmount, Montreal
Montreal G. H. S.,	Montreal Annex
Perth Coll. Ins.,	Montreal
Victoria School, St. John,	N.B, &
Montreal G. H. S.,	Montreal -
Westmount Academy	Westmount, Montreal
Montreal G. H. S.,	Montreal
Montreal Coll. Inst.,	Cowansville, Q
Misses Symmers & Smith &	

North Gower, O Montreal Blakeney, O A Bickerdi Brooks, Dey, Ma Garlick, Holman, Howden, Jackson, Kerr, Gra Lundie, J McGregoi Marcuse, Perley, F

Rorke, Ha Sangster, Sever, Hau Smith, Lil

### Name. Armstrong Brodie, Ma Finley, Kai Holiday, A Hurst, Isab Johnson, H King, Chris

Bourke-Wrij Brooks, Hari Cameron, Fi Carr, Murie Dover, Mary Jordan, Flor

Archibald, N Armstrong, N Bond, Muriel Borden, Eliza Borden, J. Ma Brice, Louise Browne, Joann Carson, Lillia Darling, Ethel Fortier, Georg Greenshields, Holland, Estel Ker, Mary A., Loud, Edith M., McConnell, Ac McDonald, Bar

Name. Bennett, C. Winifred, Budden, Jessie M., Budden, Ellen M., Carden, Matilda A., Clogg, Vivian E., Day, Daisy W., Huxtable, Gertrude M., Kingsley, Alice M.,

McLeod, May A. Molson, Evelyn, Noyes, Emily M., Radford, Isabel, esidence.

ic), Minnea-Minn., U.S.

Montreal

h Gower, O Montreal Blakeney, O

> lesidence. Montreal Montreal Montreal Montrea! it, Montreal real Annex Montreal

> > Montreal it, Montreal Montreal 'ansville, Q Montreal

### 339

SECOND YEAR.

Name. Bickerdike, May C., Bickerdike, May C., Brooks, Elizabeth A., Dey, Mary Helena, Garlick, Edythe A., Holman, Caroline E., Jackson, E. Gertrude, Karr Genera L. Kerr, Grace I., Lundie, Jessie F., McGregor, Claire R., Marcuse, Bella, Perley, Frances B.,

Rorke, Helen, Sangster, Elizabeth, Sever, Hannah D., Smith, Lillian A.,

# Name.

Armstrong, Catharine, Brodie, Margt., Finley, Kathleen E., Holiday, Annie, Hurst, Isabel M., Johnson, Helena, King, Christina C.,

Bourke-Wright, K. M. H., Sherk Brooks, Harrier, Cameron, Frances M. T., Kin St. Jo Carr, Muriel B., Dover, Mary V., Pete Jordan, Florence M.,

Archibald, Nancy C., Armstrong, Mabel C., Bond, Muriel C., Borden, Lizabeth M., Borden, J. Maude, Brice, Louise L., Browne, Joanna H., Carson, Lillian M., Darling, Ethel. Ca C Darling, Ethel, Fortier, Georgie H., Greenshields, E. Muriel, Holland, Estelle, Ker, Mary A., Loud, Edith M., McConnell, Adelaide V., McDonald, Barbara, 'McIntyre, Ethel R.,

School. Montreal G. H. S. McGill Normal School

Montreal Sincoe H S., Montreal G. H. S., Prince of Wales Coll., P. E. I., Summerside, P.E.I.. Stanstead Wesleyan Coll, Montreal G. H. S., Montreal Trafalgar Institute, Montreal Montreal Collegiate Institute, Montreal Montreal Private Tuition, Montreal G. H. S. Victoria, B. C. Danville, Q Girls' H. S. St. John, N.B., Upper Mangerville, Sunbury Co., N. B St. Thomas H S., South Woodslee, O McGill Normal School, Montreal, Sherbrooke, Q McGill Normal School, Montreal, St. Chrysostome Q Morrisburg Collegiate Institute Morrisburg

Residence.

Lachine

### THIRD YEAR.

Residence.	Name.	Residence.
Bristol, Q	McDougall, Louise,	Montreal
Montreal	McGill, I. Winifred,	Ottawa, O
Montreal	Potter, Lucy E.,	Montreal
Rawdon, Q	Radford, Janet I.,	Montreal
Montreal	Reid, Lena McK.,	Montreal
Montreal	Reynolds, Elizabeth E.	M., Winchester, O
Sarnia	Scrimger, Anna M.,	Montreal

### FOURTH YEAR.

Ireland	Pearson, Katie C.,	Montreal
brooke, Q	Reynolds, M. Edna,	Winchester, O
ngston, O	Seifert, Ethel M.,	Quebec
ohn, N. B	Shaw, A. Louise,	Montreal
terboro, O	Steen, Alice G.,	Farran's Point, Q
Montreal	Walker, Laura F. M.	, Montreal

# Partial Students.

# FIRST YEAR.

Montreal	Mudge, F. Nora,	Montreal
Montreal	Mulholland, Minnie W.,	Montreal
Montreal	Plimsoll, Gladys,	Montreal
anning. N. S	Ranken, Helen F.,	Montreal
anning, N. S	Reiffenstein, Margaret B.,	Montreal
Montreal	Richardson, Mabel,	Montreal
Montreal	Robb, E. Winnifred,	Montreal
Montreal	Stewart Edith F.,	Montreal
Montreal	Thomas, Annie L,	Montreal
Montreal	Topley, Helena, S. de C.,	Ottawa, O
Montreal	Vasey, Sarah E.,	Montreal
Montreal	Warrriner, J. Eva,	Montreal
Montreal	Waud, Alice S.,	Montreal
Montreal	Waud, Gertrude A.,	Montreal
Montreal	Whitcomb, H. Mildred,	Waterloo, Q
Montreal	Wright, Elizabeth,	Montreal
Montreal		

# 340

### SECOND YEAR.

	Name.	Residence.	Name.	Residence.
$\binom{1}{1}$	Brice, Louise L.,	Montreal Montreal Montreal	Luttrell, Maggie M., (1) McDonaid, Barbara. (1) McIntyre, Ethel R.,	Montreal Montreal Montreal
(1)	Browne Joanna H, Buchanan, Bertha L. Q. Burns, Margaret O.,	Montreal	Macfarlane, Hilda M. Meighen, Maggie F. S. Murphy, Louise I.,	, Montreal Montreal
	Clark, Nora M. Craig, Mabel, Durnford, Gwendolen,	Montreal Montreal Montreal	<ol> <li>Plimsoll, Gladys,</li> <li>Richardson, Mabel, Taylor, Flora,</li> </ol>	Montreal Montreal Montreal
(1) $(1)$	Fortier, Georgie H., Greenshields, E. Muriel, Lamb, Mary L., St. Andr		(1) Topley, Helena S. de ( Whittet, C. Maud,	C., Ottawa, O Montreal

### THIRD YEAR.

deCourtnay, Alice W., Ferguson, Jennie A., Going, E. Maud, Nowers, Winifred,	Montreal Montreal Montreal Montreal	Porter, Julia S. G., Reford, Katie F., (2) Taylor, Flora,	Montreal Montreal Montreal

FOURTH YEAR.

(2 (2 (1) (2)	<ul> <li>Armstrong, Mabel C.</li> <li>Brice, Louise L.</li> <li>Clark, Nora M.,</li> <li>Darling, Ethel, Foley, Jean S,</li> <li>Fortier, Georgie H.,</li> <li>Going, E. Maud, Jackson, M. Lillian,</li> </ul>	Montreal Montreal Montreal Montreal Montreal Montreal Montreal	<ol> <li>Luttrell, Maggie M.,</li> <li>McIntyre, Ethel R. Maltby, Emma, Muir, Mary L. D.,</li> <li>Robb, E. Winnifred, Seymour, Clara G., White, Edith S.,</li> </ol>	Montreal Montreal Montreal Montreal Montreal Montreal	
------------------------	--	--	---	--	--

### B. A.

Montreal	Palmer, Jane V.,	Montreal
Montreal	Radford, Ethel S.,	Montreal
Montreal	Tatley, Eleanor,	Montreal
Montreal	Watson, Mona T.,	Montreal
Montreal	, , ,	

# FACULTY OF APPLIED SCIENCE.

### FIRST YEAR.

l

Coote, Sydney R., St Albans, Vt., U.S.A \*Cowen, Edwin Arthur Amos, Montreal DeBlois, William Howard, Halifax, N.S Edwards, William M., Ottawa, O Egleson, James Ernest Aiken, Ottawa, O Farquharson, Cameron, Montreal Flint, William George, Montreal Fournier, Raymond Camille, Montreal Fraser, Donald C., New Glasgow, N.S Frechette, Howells, Ottawa, O Fry, David Merner, Bright, O

Gagnon, Galbrait Glassco, Hale, Lo Hampson Hearn, J Higman, Howard, Howard, Jamieson Labatt, J Lloyd, He Lowden, 1 McDonald McDonald McIntosh, McKenna, McKenzie, McLaren, Meldrum, Mitchell, G \*Miner, W Ogilvy, Pa \*Peck, Tho Paterson, C

Allen, Sam Anglin, Jan Arkley, Lor Barber, Ren Black, Thor

Buffett, Aar

Burgoyne, Si Byers, Archi Cary, George Corriveau, R. Coussirat, H. Cowans, Fre Donaldson, F Duncan, G I Ewart, Georg

Fraser, John Forman, Andı Gilean, Robe Glassco, Jack Hamilton, Get Hamilton, Jan Kane, Roderiei Maclaren, Geo

Archibald, Ern Austin, Ciaude Bachand, Georg Blaylock, Selw:

Askwith, Charles English, Ottawa, O Blue, Allan Pollock, Rustis, Q Buchanan, Dorion T., Cote St. Mitchell, Q Boyd, Hugh Harkness, Montreal Brookfield, John Waites, Halifax, N.S Burchell, George Bartlett, New Campbellton, C.B Burson, Herbert Arthur, St Catherines, O

Armstrong, L. Ethel, Brown, Justine M., Craig, Margaret, Jackson, Annie Louise Nicholls, Amy W.,

Burwell, Ernest Victor, Cameron, Hugh Donald, Clement, Sheldon Byrne, Clinton, O esidence. Montreal Montreal Montreal Montreal Montreal Montreal Montreal Montreal Montrea! Ottawa, O Montreal

> Montreal Montreal Montreal

Montreal Montreal Montreal Montreal Montreal Montreal Montreal

> Montreal Montreal Montreal Montreal

It., U.S.A Montreal lifax, N.S **Ittawa**, O Ottawa,0 Montreal Montreal Montreal gow, N.S )ttaws, O Bright, O Gagnon, Edmund Ernest, Westmount, Q Galbraith, Malcolm Thomas, Montreal Glassco, Archie P. S., Hamilton, O Hale, Lorne, Hampson, Edward Greville, Pembroke, 0 Montreal Hearn, John F., St. Johns, Nfld Higman, Ormond, Howard, Lawrence 0., Ottawa, O Lachine, Q Lachine, Q Howard, Rupert F., Lachine, Q Jamieson, George Ernest T., Montreal Labatt, John Sackville, London, O Lloyd, Herbert M., New Westminster, B.C Lloyd, Herbert M., New Westminster, B.C Lowden, Warden King, Montreal McDonald, Sidney, Montreal McDonald, Rod. B., Glenaladale, P.E.I McIntosh, John Gordon, London, O McKenna, William Francis, Montreal McKenzie, Bertram Stuart, London, O McLaren, John, Montreal Meldrum Bohert Hunter Montreal Meldrum, Robert Hunter, Montreal Mitchell, George Gooderham, Toronto, O Haron, Granby, Q Cumming's Bridge, O \*Miner, William Haron, Ogilvy, Paul, Cumm \*Peck, Thomas Esmond, Montreal Paterson, Charles Stiven, Montreal

Montreal Plant, Verner Lovelace, Presner, Philip, Presner, Philip, Reeves, James D., Reynolds, Leo Bowldy, Ritchie, Joseph Norman, \*Rolland, Leon, Schwitzer, Thomas Henry \*Scott, Harry Evart, Scott, Henry Maurice, \*Slavice Charles Koeler L. Montreal Grenville, Q Waterford, O Halifax, N.S. Montreal Ottawa, O Napanee, O Montreal \*Slayter, Charles Keeler L., Halifax, N.S. Stevenson, Herbert Richard, Montreal Taylor, Charles W., Richmond, O Tupper, Charles, Vancouver, B.C Wakeling, Otty Sylvester, St John, N.B Ward, Percy Walton, Lachine, O Ward, Reginald C., Charing Cross, O Walsh, William Nelson, Ormstown, O \*Watson, Hugh, \*Watson, Robert G., Montreal Montreal Wells, Samuel Scott, White, Gerald Verner, \*Wiener, Abram, Wilkins, George H., Montreal Pembroke, O Montreal Montreal \*Wilson, Reginald C, Cumberland, O Wilson, Thomas Albert, Waverley, N.S

### SECOND YEAR.

Allen, Samuel J.,	Maitland, N.S	MacMaster, Arthur F.,	Montreal
Anglin, James Penrose,	Kingston, O	MacMillan, George P.,	Petrolia, O
Arkley, Lorne M., East		Millar, James L.,	Pembroke, O
Barber, René R.,		Miller, Angus K.,	Bridgeburg, O
Black, Thompson Truema			Morrisburg, O
Diack, Inompson Truema	N.B		Peterboro', O
Duffett Asnen Former		Moore, Ernest Vivian,	Montreal
Buffett, Aaron Forsey,	Grand Bank,	Nelson, George J.,	
P 0	Nfld	Neville, Thomas P. J.,	Halifax, N.S
Burgoyne, Stanley John,	Halifax, N.S	Ogilvie, Norman C,	Montreal
Byers, Archibald F.,	Gananoque, O	Osborne, J. Ewart,	Toronto, O
Cary, George M.,	Goderich, O	Percy, Howard M.,	Montreal
Corriveau, Raoul de B.,	Iberville, Que	Pyke, Gordon McT.,	Montreal
Coussirat, Henri A.,	Montreal	Robertson, Philip W. K.,	Mexico City,
Cowans, Frederick,	Montreal	·····	Mexico
Donaldson, Hugh W.,	Hamilton, Ont	Rolland, Jean, S	t. Jerome, Que
Duncan, G Rupert,	Montreal	Scott, George W.,	Montreal
	Kilauea, Kanai,	Shepherd, Harry L.,	Brockville, O
	waiian Islands	Sise, Paul F.,	Montreal
Fraser, John W., Charlo	ttetown, P.E.I	Smith, George B.,	Stratford, U
Forman, Andrew S.,	Montreal	*Staveley, Edward B.,	Quebec, Q
Gillean, Robert H.,	Montreal	St. George, Harry L.,	Montreal
Glassco, Jack G.,	Hamilton, O	*Toole, John L.,	Montreal
Hamilton, George H.,	Peterboro', O	*Trenholme, Arthur,	Montreal
	Peterboro', O	Walker, Frank W.,	Montreal
Hamilton, James,			
Kane, Roderick A. C.,	Montreal	Whiteway, William V. E.	
Maclaren, George McG.,	Ottawa, O		Nfld
	THIRD	YEAR.	
	THIND		

Archibald, Ernest M.,	Halifax, N.S	Bowman, Arch'd A., New Gla	fville, N.S
Austin, Claude V. C.,	Ottawa, O	Burgess, R. Earl, Wol	
Bachand, George A.,	Montreal	Campbell, Norman M.,	Montreal
Blaylock, Selwyn G.,	Dauville, Q	Colpitts, Walter W., Mo	encton, N.B

341

Cornwall, Clement A. K., Ashcroft, B.C	McLaren, Archibald J.
Dargavel, James S., Elgin, O	McLean, William B.,
Davidson, William A., Peterboro, 9	McLeod, Norman M.,
Denis, Leopold, Montreal	Moore, Wm. M. Agney
Ewen, Herbert M., Montreal	Moore, William A.,
Fetherstonhaugh. Ed. P., Montreal	Morgan, Charles B.,
Fraser, Charles E., Montreal	Nicholls, Harry G.,
Fraser, Harold, Brockville, O	Olds, William T.,
Fraser, James W., Bridgeville, N.S.	Parizeau, Henri D.,
Gagnon, Louis F., Montreal	
Gamble, William Paul, Cumberland, O	Peder, Frank,
	Pergau, Harry,
Gisborne, Lionel L., Ottawa, O	Pitcher, Norman C.,
Gough, Richard T., Halifax, N. S	Preston, John,
Grier, Arthur G., Montreal	Shaw, John A,
Hawker, James T, St. John, N.B	Stevens, Angus P.
Henderson, Richard A., Chilliwack, B.C	Van Horne, Richard
Hickey, John V., Montreal	Waller, George W.,
Hutchinson, William S., Montreal	Wenger Edgar I.,
Hyde, George T., Montreal	Whyte, John S.,
Hyde, James C., Montreal	Wilson, Robert M.,
Kirkpatrick, Stafford F., Kingston, O	Young, William M.,
MacInnes, Henry W. Halifax, N.S.	Yuile, Norman M.,
FOURT	H YEAR.
Ainley, Charles N., Almonte, O.	Mackie, James D.,
Anderson, Wm., Beaumont, Ottawa, O	MacLean, Thomas A.
Angel Fundamials W St. John Mad	

342

Angel, Frederick W., St. John's, Nfd Atchibald, Harry P., Antigonish, N. S Atkinson, Donald C. T., Etchemin, Q Atkinson, Wm. J., Glenboro, Man Bacon, Frederick T. H., Montreal Beattry David H Beatty, David H., Benny, Walter W., Bond, Frank L. C., Sarnia, O D'Aillebour, Q Montreal Butler, Percy, Cape, Edmund G., Davidson J. Herbert, Montreal Hamilton, O Montreal Davis, Angus W., Dean, Bertram D., Montreal Drysdale, Geo. A., Boston, Mass, U.S A Eaves, Edmund, Montreel Hillary Geo. Hillary, Geo. M. Whitby, O Irving, Thos. T., Vernon River Bridge, P.E.1 Laurie, Albert, Montreal Mackerras, John D., Kingston, 0

Cole, Arthur A., B.A.Sc., Rossland, B.C Dougall, Ralph B.A.Sc., Montreal Drinkwater, Chas. G., B.A.Sc., Mon-

Green, J. Raoul, B.A.Sc., Rossland, B.C Gill, James L. W., B.A.Sc., Little York

Montreal Lyn, O Montreal Toronto, O Montreal Dunham, Q B., Mont. Bartonville, O Ayton, O Osgood, O Montreal Renfrew, 0 Montreal Kingston, O ., Charlottetown, P.E.I Maclennan, Frank W., MacPhail, Wm. M., Cornwall, O Orwell, P.E.I Matheson, Ernest G., Oyster Bed Bridge, P E.I McCarthy, George A., Moneton, N.B McLea, Ernest H., Montreal McRae, John B., Ottawa, O Patton, Walter H., Reaves, Campbell, Montreal Scott, James H., Outremont, Q Sheffield, Charles, Kingston O Scott, James H., Scott, James H., Simpson, J. Manley, Toronto, O Summa, Vito M., Avigliano, Italy Thomas, Leonard E L., Melbourne, Q Waterous, Charles A., Brantford, O Pictou, N.S Vingston, O

Montreal

Pictou, N.S. Montreal Ottawa, O

Toronto, O Hamilton, O Toronto O

Simcoe, 0

Bouc herville, Q

W.

### GRADUATES.

treal

P.E.I

King, Robert O, B.A.Sc., Toronto, O Ross, John K. L., B.A.Sc., Montreal Strickland, Tom P., B.E., Sydney, N.S.W., Australia Stovel, Russell W., B.A.Sc., Toronto, O Symmes, Howard C., B.A.Sc., Aylmer, Q

Kingston, O

Partial Students.

Edgar, Miss,	Montreal	Molson, Mrs. M., Powell, John P.,	Montreal Carbonear, Nfld	
Hill, Miss, Hoffman, Auguste, Eberfeld, R	Montreal	Redpath, Miss H.,	Montreal Montreal	

FAC

Allen, Fra Hayes, T., Humphrey

ALLE Gellatley, Groves, Jo Hammond,

Baldwin, B. Bell, W. Li Burke, R. H Cleaves, A. Cullen, D., Fahey, John Hart, J. B.,

Fraser, Ella 1 May, Fanjoy ( Nicholson, Wi

Fyles, Faith, Laverie, James MacRae, Donal

Jackson, Emma

Beemer, N. E., Bignell, A. E., Bonham, E., Boswell, M. L. Clapham, M. B.

Cleary, F. L. S.

# FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE.

343

### FIRST YEAR.

Springfield, Mass Waltham, Mass Z. Porten, Mass Z. Porten, Mass Allen, Frank T., Hayes, T., Humphreys, Bernard K., Boston, Mass

SECOND YEAR.

ALLE

Gellatley, Geo., Groves, John W., Hammond, Geo. W.,

Baldwin, B. K., Bell, W. Lincoln, Burke, R. H., Cleaves, A. H., Cullen, D., Fahey, John, Hart, J. B.,

Philadelphia, Pa Brooklyn, N.Y Rock Island, Que Bar Harbour, Me Boston, Mass Mt. Carmel, Conn Montreal Lambert, G. H., Paquin, L. A., Pfersick, J. G., S Spanton, J. P., Symes, J. W., Wallis, W. B., Ashville, N.C Northampton, Mass Shelburne Falls, Mass Dover, England Leeds, Que Colchester, England

Tokio, Japan Aubrey, Que

# COLLEGES AFFILIATED IN ARTS.

# MORRIN COLLEGE, QUEBEC

# Undergraduates.

### FIRST YEAR.

Fraser, Ella M., May, Fanjoy C., Nicholson, William,

Fyles, Faith, Laverie, James H., MacRae, Donald N.,

Jackson, Emma,

Beemer, N. E., Bignell, A. E., Bonham, E., Boswell, M. L., Clapham, M. B. S., Cleary, F. L. S.,

SECOND YEAR.

Pidgeon, E. Leslie, Ritchie, Jessie R., Rothney, William O.

THIRD YEAR.

| Seifert, Fred W.,

Reid, Allan S., Smith, Essie.

# Partial Students.

Cockburn, Mrs. F.,
Cockburn, Mrs. F., Cook, M.,
Cook, Mrs. A. H.,
Dankerley, C. F.,
Duffete, G.,
Duggan, Mrs. F. M.,

Huntingdon, Que Kato, Y., Hamilton, O McGregor, Jas., Montreal | THIRD YEAR.

onto, O 10, Italy urne, Q tford, O ou, N.S

sston, O

onto, O ontreal

Sydney, ustralia

onto, U lmer, Q

lontreal tr, Nfld ontreal ontreal

Montreal

tou, N.S Montreal

ttawa, O pronto, O nilton, O oronto O

Duplessis, L., Duplessis, L., Foote, M., Fry, E. M., Fry, Frances M., Gilmour, H. M. Graham, P. H., Grant, Jean, Gwyn, E. P., Hamilton, M., Hamilton, M., Henderson, M., Henderson, M., Hicks, M. E., Holloway, A., Holt, Mrs. J, Hunter, Louise L, King, Mrs., Laurie, Mrs. H., Lee, M., Le Vasseur, W., Macrae, C. Macrae, C, Macrae, V., Macrae, V., Macdonald E., MacNaughton, T. M., Meiklejohn, Harriet T., Miller, L. C., McCutcheon, O. F., McLeod, E, McLimont, A., Poston, Mrs. T. E., Reid, L., Ritchie, M. A., Ritchie, Mrs. John, Rondeau, C. E., Ross, Mrs. A. D., Sewell, C. M., Simpson, May, Smith, Mrs., Sparling, Wm., Stevenson, A., Stevenson, A., Stevenson, A., Tait, Donald, Thomson, J. H., \* Tremaine, L. L., Von Iffland, K., Walters, A. E., Walton, Mrs. F. W., Webb, Mrs. E. E., Webster, M., Wheeler, James, Winn, H. E., Wood, H. B.,

# ST. FRANCIS COLLEGE, RICHMOND.

Undergraduates.

FIRST YEAR.

Cross, Ruby M., Fee, James E.,

Fuller, George D., Kellock, Jessie J.

Partial Student.

Ewing Wm. J.

1

# STANSTEAD WESLEYAN COLLEGE.

1

Undergraduates. FIRST YEAR.

1

Page, Harriet A.

Flint, Mary, Flint, Roy,

Dobson, Perry A.

SECOND YEAR Hill, O. Wendell.

Partial Student. 1

Student 46 "

Tots Students 44 " "

McGill N

"

Deduct, re

344

345

# SUMMARY.

Students in Law, McGill College '' in Medicine, '' '' in Arts : ''	47 429
$ \begin{array}{c} \text{Men} \\ \begin{cases} Graduates$	
Women $\begin{cases} Graduates$	370
Total in Arts including Students from other Faculties, about 650	
Students in Arts, Morrin College """"""""""""""""""""""""""""""""	74 5 5
{Undergraduates, Partial and Graduates }	226
" " Veterinary Science	23
McGill Normal School, Teachers-in-training	1179 168
Deduct, repeated in different lists	1347 24
Total	1323

# Observatory.

Latitude, N. 45° 30' 17". Longitude, 4h 54m 18. 67.

Height above sea level, 187 ft.

# Superintendent-C. H. McLeod, MA.E.

# Assistant-GEORGE R. MCLEOD, B.A.Sc.

Meteorological Observations are made every fourth hour, beginning  $3^{h_{Om}}$  Eastern standard time; also at  $\delta^n \circ^{\omega}$  and  $20^n \circ^{\omega}$ . Independent series of bi-hourly temperature observations are also made. The principal instruments employed are two standard mercurial barometers; one Kew standard thermometer; two Pastorelli thermometers; one maximum thermometer; one minimum thermometer; one set of six self-recording thermometers, with controlling clock, battery, etc.; two anemometers; one wind vane (wind-mill pattern); one anemograph, with battery, etc.; one sunshine recorder; one rain-band spectroscope; and one rain gauge.

The Anemometer and Vane are on the summit of Mount Royal at a point about three-quarters of a mile northwest of the Observatory. They are 57 feet above the surface of the ground and 810 feet above sea level.

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

The Astronomical Equipment consists of :—The Blackman Telescope (6<sup>1</sup>/<sub>4</sub> in.); a photoheliograph (4<sup>1</sup>/<sub>2</sub> in.); a 3<sup>1</sup>/<sub>4</sub> in. transit, with striding level, etc.; a prismatic (8 c.m.) transit instrument also arranged as a zenith telescope, a 2 in. transit in the prime vertical; two collimating telescopes; one sidereal clock; one meantime clock; one sidereal chronometer; one meantime chronometer; one chronograph; batteries, telegraph lines and sundry minor instruments.

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

The longitude of the Observatory was determined in 1892 by direct telegraphic connection with Greenwich and with exchange of observers and instruments. The position is believed to be the most accurately determined in America.

Courses of instruction are given in the use of the meteorological instruments, see page 31, and in astronomical work to the Fourth Year Students in the Civil Engineering Courses, see page 114. Medical

The c meet at sible, th the com The r structor treating reported THE W TURE (th to Studer instructio the forme The aw Corporatio Every c the Judge in the gr Faculty to to any Sti Classes WOMEN W suitable.

# THE

All matte and of Out Committee ( One ( The F One M One M One M One M One M

# Aniversity Cymnasium.

Medical Examiner and Instructor.-R. TAIT MCKENZIE, B.A., M.D.

The classes, which are open to Students of all the Faculties, will meet at the University Gymnasium, at hours to suit, as far as possible, the convenience of Students, and which will be announced at the commencement of the Session.

The recent addition of some special apparatus enables the instructor to devote some attention to the application of exercise in treating special cases of weakness or deformity, which should be reported to him before the regular class work is undertaken.

THE WICKSTEED SILVER AND BRONZE MEDALS FOR PHYSICAL CUL-TURE (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 competitior for the silver medal is required to lodge with the Judges, before the examination, a certificate of good standing in the graduating class signed by the Dean or Secretary of the Faculty to which he belongs, and the medal will not be awarded to any Student who may fail in his examination for the degree.

Classes for the Students of the DONALDA SPECIAL COURSE FOR WOMEN will be conducted by MISS BARNJUM at hours found most suitable.

# REGULATIONS.

# CONCERNING THE MANAGEMENT OF

### THE COLLEGE GROUNDS AND ATHLETICS.

All matters relating to the management of the College grounds and of Out-Door Athletics and Sports are under the control of a Committee consisting of :--

One Governor.

The Principal.

One Member of the Faculty of Arts.

One Member of the Faculty of Applied Science.

One Member of the Faculty of Law.

One Member of the Faculty of Medicine.

One Member of the Faculty of Comp. Medicine. One Graduate.

ginning lependle. The baromomer; one k, batttern); ;; one Royal

serva-

nysical nging

Teleswith o artical; :lock; chronts. clear bserneans larm

> e of most

> > gical urth

One Undergraduate, member of the Football Club. One Undergraduate, member of the Tennis Clubs. One Undergraduate, member of the Cricket Club. One Undergraduate, member of the Hockey Club. The President of the Athletic Association.

The several Members of the Committee are elected annually by their respective bodies; and the Committee meets for organization on the first Saturday of February in each year. The Undergraduate Members of the Committee are entitled to vote only on matters relating to Athletics.

The following extracts are made from the rules and regulations of the Committee, for the guidance of Members of the University and the several Athletic Clubs and Associations which are from time to time permitted to use the grounds :

The University and McTavish Street gates shall be closed between 6 p.m. and 7 a.m. on week days and the whole day on Sunday.

The Sherbrooke Street gates shall be closed between 10 p.m. and 6 a.m.

Such persons as are entitled to use the Grounds shall be provided with tickets renewable each year.

Those entitled to tickets are the Members of the University and promient Benefactors, and the families of Governors and Professors.

The several Clubs shall be permitted to issue special tickets (without charge), entitling the holders to admission to the Grounds for the purpose of viewing matches, or for other special occasions of public interest.

All Students desirous of taking part in football matches, or otherwise engaging in violent athletic contests, must pass a medical examination, to be held under the direction of the Superintendent of the Gymnasium. A complete record of all such examinations shall be kept by the Superintendent or other officer appointed to this duty.

All Clubs must submit their Regulations, Rules and By-Laws, and any changes in the same, for the approval of the Committee. They must make application for the use of such portions of the Grounds as they require, and for any special privileges.

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

All Undergraduates of the University are required to pay a fee of two dollars (\$2.00) for the use of the Grounds. The amount so paid is handed over to the Committee, and is by it expended in the interest of College Athletics and in the permanent improvement of the Grounds. Vice-M.A.;

G

Reside D.V.S.; Hall, B Non-R Que.; R M.D., C N.B.; R Q.C., L1

THI

Sec.-Treas Resident King, R. Non-resia Rossland, brooke, Q. N.S.; W. J racite, N.W Pueblo, Co Frost, New

ALU

Vice-Presiden

# Aniversity Societies.

# GRADUATES' SOCIETY OF MCGILL UNIVERSITY.

INCORPORATED 24TH JULY, 1880.

# Officers 1898-99.

President-C. W. Colby, M.A., Ph.D.

Vice-Presidents-Miss H. R. Y. Reid, B.A.; Miss C. M. Derick, M.A.; Peers Davidson, M.A.

Secretary-Homer M. Jaquays, B.A., B.A.Sc.

Treasurer-Francis Topp, B.A., B.C.L.

Resident Councillors-F. D. Adams, M.A.Sc., Ph.D.; M. C. Baker, D.V.S.; Arch. MacArthur, B.A.; A. R. Holden, B.A., B.C.L.; A. R. Hall, B.A., B.C.L.; Chas. Wilson, M.D.

Non-Resident Councillors—Hon. W. W. Lynch, D.C.L., Knowlton, Que.; Rev. E. H. Krans, LL.D., New York; S. J. Tunstall, B.A., M.D., C.M., Vancouver, B.C.; W. W. White, M.A., M.D., St. John, N.B.; Robert H. Conroy, B.C.L., Aylmer, Que.; J. J. MacLaren, Q.C., LL.D., Toronto, Ont.

# THE APPLIED SCIENCE GRADUATES' SOCIETY.

Honorary-President—Dr. H. T. Bovey. President—J. M. McCarthy. Vice-President—Prof. F. D. Adams.

Sec.-Treas.-J. G. G. Kerry, Engineering Building, McGill University. Resident Committee-W. F. Angus, J. W. Bell, A. L. Mudge, R. O. King, R. H. Jamieson.

Non-resident Committee—R. B. Rogers, Peterboro, O.; A. A. Cole, Rossland, B.C.; W. P. Laurie, Quebec, Q.; W. G. Smart, Sherbrooke, Q.; J. K. Scammell, Fairville, N.B.; H. M. McKay, Pictou, N.S.; W. J. Bulman, Charlottetown, P.E.I.; O. S. Whiteside, Anthracite, N.W.T.; J. M. McGregor, Rossland, B.C.; E. H. Hamilton, Pueblo, Col., U.S.A.; P. N. Evans, Lafayette, Ind., U.S.A.; G. H. Frost, New York, U.S.A.; L. L. Street, Marlboro, Mass., U.S.A.

# ALUMNA SOCIETY OF MCGILL UNIVERSITY.

President-Georgina Hunter, B.A.

Vice-Presidents-Kate M. Campbell, B.A.; L. Ethel Armstrong, B.A. Cor.-Secretary-Carrie M. Derick, M.A.

ually by anization graduate tters re-

> ulations liversity e from

ed bet-Sunday. m. and

ty and fessors. (withids for ons of

> othercal exent of s shall s duty. s, and They ounds

> > each

a fee nt so n the nt of

# Assistant Cor.-Sec.—J. Ethel Hurst, B.A. Rec.-Secretary—Elizabeth Hall, B.A. Assistant Rec.-Sec.—Eleanor Tatley, B.A. Taeasurer—H. Inez R. Botterell, B.A.

350

Additional Members of Committee of Management of Girls Club-Helen R. Y. Reid, B.A.; Alice Murray, B.A.; Rosalia F. Campbell, B.A.

# OTTAWA VALLEY GRADUATES' SOCIETY.

### ORGANIZED 1890.

Honorary President-The Rt.-Hon. Sir Wilfrid Laurier, P.C., K.C.M.G., LL.D.

# President-R. W. Ells, M.A., LL.D.

Vice-Presidents-W. C. Cousens, M.D., C.M.; G. C. Wright, B.A., B.C.L.; D. B. Dowling, B.A.Sc.

Treasurer-J. Herbert Larmonth, B.A.Sc.

Secretary-J. F. Warne, B.A. (1061/2 Sparks Street).

Committee--R. F. Conroy, B.C.L.; A. E. Barlow, M.A.; James Mc-Evoy, B.A.Sc.; E. L. Quirk, M.D., C.M.; Henry M. Ami, M.A., D.Sc.

# NEW YORK GRADUATES SOCIETY OF McGILL UNIVERSITY.

### ORGANIZED 1895.

President—Rev. Edward H. Krans, M.A., LL.D. Vice-Presidents—Wolfred D. E. Nelson, M.D.; James A. Meek, M.D.; Wm. de Courcy Harnett, B.C.L.

Secretary-W. Ferguson, M.D., 948 E. 166th St., New York. Treasurer-Hiram N. Vineberg, M.D.

*E.vecutive Committee*—Rev. J. J. Rowan Spong, M.A., B.C.L., LL.B.; Geo. C. Becket, M.D.; James A. Stevenson, B.A.Sc.

Non-Resident Councillors-Right Rev. J. D. Morrison, M.A., D.D., Bishop of Duluth; Rev. Charles Bancroft, M.A., New Hampshire; William Osler, M.D., Baltimore, Md.; Thomas Kelly, M.D., Omaha, Neb.; Rev. J. C. Bracq, Vassar College, N.Y.; H. Holton Wood, B.A., Derby, Conn. S. Exect B.A. ; Pringle

THEE

Vice-F minster) M.D., C See Tre Execute Holden, W. S. Jc (New W

THE

Pi Vi Secretar St. John, Executiv

NOV

He

Ist

# MCGILL GRADUATES SOCIETY OF TORONTO.

351

## ORGANIZED 1896.

Hon.-President-E. A. Meredith, LL.D. President-J. J. MacLaren, Q.C., LL.D. 1st Vice-President-H. A. Burritt, M.D. 2nd Vice-President-A. R. Lewis, B.A., Q.C. Secretary-R. B. Henderson, B.A., 24 Adelaide street East. Treasurer-A. H. U. Colquhoun, B.A.

Executive Committee-J. Algernon Temple, M.D.; C. Swabey, B.A.; P. E. Ritchie, B.A.; Rev. Canon Sweeney, D.D.; George Pringle, M.D.; Frank Pedley, B.A.

# THE BRITISH COLUMBIAN SOCIETY OF GRADUATES OF McGILL UNIVERSITY.

ORGANIZED 1896.

Hon.-President—I. W. Powell, M.D. (Victoria).
President—E. B. C. Hannington, M.D. (Victoria).
Vice-Presidents—Wm. A. DeWolff-Smith, M.D. (New Westminster); J. M. McGregor, B.A.Sc. (Rossland); R. E. McKechnie,
M.D., C.M. (Nanaimo); Rev. J. S. Gordon, B.A. (Vancouver).
Secretary—W. J. McGuigan, M.D., LL.B. (Vancouver).

Treasurer-Simon J. Tunstall, B.A., M.D. (Vancouver). Executive Committee-W. A. Carlyle, B.A.Sc. (Victoria); D. B. Holden, B.A., M.D., (Victoria); Alfred Poole, M.D., (Vancouver); W. S. Johnson, B.A.Sc. (Slocan City); Rev. H. M. McIntosh, B.A.. (New Westminster).

# THE NEW BRUNSWICK GRADUATES' SOCIETY OF MCGILL UNIVERSITY.

### ORGANIZED 1896.

President—F. H. Wetmore, M.D. (Hampton, N.B.). Vice-President—B. S. Price, M.D. (St. John, N.B.). Secretary-Treasurer—J. H. Scammell, M.D. (76 Waterloo street, St. John, N.B.).

Executive Committee-J. H. King, M.D.; W. L. Ellis, M.D.

# NOVA SCOTIA SOCIETY OF MCGILL GRADUATES.

### ORGANIZED 1896.

Hon.-President—Rev. Robert Laing, M.A. (Halifax).
President—Job McMillan, M.D. (Pictou).
1st Vice-President—E. A. Kirkpatrick, M.D. (Halifax).
2nd Vice-President—Wm. Jakeman, D.V.S.

Clubampbell,

P.C.,

;, B.A.,

es Mc-

M.A.,

L

# Meek,

rk.

.L.B.;

D.D., shire ; maha,

Vood,

Secretary-Treasurer-W. H. Hattie, M.D. (11 Spring Garden Road, Halifax).

Executive Committee-A. A. Mackay, B.A.; N. Ayer, M.D.; F. S. Yorston, M.D.; James Ross, M.D.

# McGIIL GRADUATES' SOCIETY OF THE DISTRICT OF BEDFORD.

### 1898.

PROVISIONAL OFFICERS.

3 E.

Execut Ph.D.;

For

H

the fur

President—Hon. W. W. Lynch, D.C.L. Vice-Presidents—R. C. McCorkill, M.D.; Rev. E. M. Taylor, M.A.; C. A. Nutting, B.C.L.

Sec.-Treasurer-Rev. Jas. A. Elliott, B.A. Committee-J. C. McCorkill. B.C.L.; Hon. H. T. Duffy, M.A., B.C.L.; Rev. W. T. Gunn, M.A.; H. Leroy Fuller, B.A., M.D.; Rev. Jas. A. Elliott, B.A.

# UNDERGRADUATES' LITERARY SOCIETY.

# CONSTITUTED 1880.

President—W. Gordon Bishop, Arts, '98. 1st V(...-Pres.—W. Eell, Law, '99. 2nd Vice-Pres.—E. V. M. Hunter, Med., '01. Secretary—Lemuel Robertson, Arts, '90. Assist.-Secretary—A. W. Lockhead, Arts, '01. Treasurer—Robert C. Paterson, Arts, '98.

Committee-R. H. Rogers, B.A., Law '98; S. G. Archibald, B.A., Law, '00; A. H. Duff, Arts, '98; W. G. Brown, Arts, '99; F. S. Patch, Arts, '99.

# DELTA SIGMA SOCIETY.

### ESTABLISHED 1884

# OFFICERS FOR 1898-99.

President—Kathleen Finley. Vice-President—Helena Dey. Sec.-Treasurer—Evelyn Molson. Committee—Misses F. Botterell, B.A., L. MacDougall, I. Radford, J. Budden. Secona

Preside

Ist Vic

2nd Vi

3rd Vice-F

YOU

OBJECT.-Christianity MEMBERSI consist of G n Road,

.; F. S.

CT

1.92

, M.A.;

Duffy, B.A.,

> B.A., Patch,

# 353

# MCGILL COLLEGE CLASSICAL CLUB.

For the purpose of fostering a greater interest in and promoting the further study of Classical Languages, Literature and Art. *Hon.-President*--Principal Peterson. *Hon.-Treasurer*--Prof. A. Judson Eaton, Ph.D. *President*--D. W. Munn, Arts '99. Ist Vice-President--M. Carr, Arts, '98. 2nd Vice-President--L. Robertson, Arts, '99. Secretary--C. C Ferguson, Arts, '99.

Treasurer-F. S. Patch, Arts, '99.

Executive Committee--S. B. Slack, M.A.; Frof. C. Colby, M.A., Ph.D.; L. E. Potter, Arts, '99.

# APPLIED SCIENCE SOCIETY.

# ORGANIZED 1897.

Hon.-President-Prof. H. T. Bovey.

President-W. W. Colpitts, representing Civil Engineering and Architecture.

1st Vice-President-S. F. Kirkpatrick, representing Mining Engineering and Chemistry.

2nd Vice-President-R. M. Wilson, representing Electrical Engineering.

3rd Vice-President-J. S. Whyte, representing Mechanical Engineering. Secretary-J. G. Glassco. Treasurer-R. H. Gillean.

Second Year Representatives-B. S. McKenzie, P. Ogilvie.

## THE MCGILL MINING SOCIETY.

# ORGANIZED 1891.

Honorary President—Dr. B. J. Harrington. President—J. E. Preston, App. Sc., '99. Sec.-Treasurer—R. H. Gillean, App. Sc., '00.

# YOUNG MEN'S CHRISTIAN ASSOCIATION OF McGILL UNIVERSITY.

OBJECT.-To promote the piety of its members and the cause of Christianity in the University.

MEMBERSHIP.—The active Membership of the Association shall consist of Graduates and Students of the University who are members of some Protestant church. Any Graduate and Student of good moral character may become an associate member. A social reception is given to new students at the beginning of the session.

# Officers for 1898.

Hon.-President—Sir J. W. Dawson. President—A. H. Gordon, Med. '99. 1st Vice-President—R. C. Paterson, B.A., Med. '02. 2nd Vice-President—J. S. Whyte, App. Sc. '99. Recording Secretary—W. H. De Blais, App. Sc. '01 Treasurer—W. S. Galbraith, Med. '99. Asst.-Treasurer—G. W. Irving, Arts '01. General Secretary—A. H. Grace, B.A.

### CHAIRMEN OF COMMITTEES.

Religious Meeting—Prof. H. F. Armstrong. Bible Study—C. E. Fraser, App. Sc. '99.
Social—R. C. Paterson, B.A., Med. '02.
Membership—A. H. Gordon, Med. '99.
Missionary—C. Macpherson, Med. '00.
Musical—H. M. Lloyd, App. Sc. '01.
Finance—W. S. Galbraith, Med. '99.
Work for New Students—A. H. Grace, B.A.
Building—A. H. Gordon, Med. '99.
Graduate—W. L. Hamilton, M.D.

# YOUNG WOMEN'S CHRISTIAN ASSOCIATION.

# ESTABLISHED 1887 (AS THEO DORA SOCIETY).

OBJECT.—The development of Christian character in the members, and the development of active Christian work, particularly among the young women of the University. Open for membership to students of the Donalda Special Course for Women.

# SESSION 1898-99.

President—Christina King. Vice-President—Edythe Garlick. Cor.-Secretary—Margaret Brodie. Rec.-Secretary—Winifred Bennett. Treasurer—Alice Kingsley. Com.ni W. H. F N. Ogilv son, '99;

Executiv E. McLea of good al recep355

# CONVENERS OF COMMITTEES.

Devotional—Catherine Armstrong. Theo Dora—Lillian Smith. Membership—Anna Scrimger. Relief—Helena Dey.

# MCGILL UNIVERSITY ATHLETIC ASSOCIATION.

# ESTABLISHED 1384.

Hon.-President—Principal Peterson. President—R. A. A. Shore, Med. '99. Vice-President—J. W. Woodley, Arts '00. Secretary—J. L. Todd, Arts, '98. Treasurer—H. P. Hill, Med. '00.

Representatives: Arts-P. Molson, '01; Law-W. M. Robertson, '99; Medicine-Walter Wilkins, '99; Applied Science-Rupert Howard, '00; Comp. Medicine-Geo. Galletly, '99.

### MCG LL UNIVERSITY RUGBY CLUB.

Hon.-President—Principal Peterson.
Hon.-Treasurer—Dr. J. M. Elder.
President—R. O. King, B.A.Sc.
Vice-President—G. T. Alley, Med. '99.
Manager—C. P. Howard, B.A., Med. '00.
Hon.-Secretary—W. H. Sutherland, Med. '99.
Treasurer—S. A. Ross, Med. '99.
Captain 1st XV.—A. H. Grace, Arts '98.
Captain 2nd XV.—A. Glassco, App. Sci. '01.
Captain, 3rd XV.—J. Mowatt, Arts 01.

Com.nittee.—Arts: Percy Molson, '01, L. Reford, '00; Medicine: W. H. P. Hill, '00, P. Duffy, '00; App. Science: W. M. Young, '99, N. Ogilvie, '00; Law: S. G. Archibald, B.A., '00, W. G. M. Robertson, '99; Vet. Science: E. W. Hammond, '99, Y. Kato, '99.

# MCGILL CRICKET CLUB.

President—Prof. C. E. Moyse, B.A. Vice-President—A. B. Wood, B.A. Acting Sec.-Treas.—W. W. Walker, (Box 514 P.O.) Executive Committee—A. R. Oughtred, B.C.L.; J. F. Mackie, B.C.L.; E. McLea, Sc., '98; H. W. Wonham, H. C. Hill.

among to stu-

# MCGILL LAWN TENNIS CLUB.

Hon.-President—Prof. H. L. Callendar. President—J. R. Kennedy, Law '98. Vice-President—J. A. Fairie, Med. '99. Secretary—F. T. H. Bacon, App. Sc. '98. Treasurer—E. A. Grafton, M.D.

Committee—G. T. Hyde, App. Sc. '99; N. M. Burke, Arts '00; A. C. P. Howard, Med. '01; E. Burke, Law '00; — Humphries, Comp. Medicine.

# MCGILL UNIVERSITY SKATING CLUB.

President—A. W. Davis, App. Sc. '98. Vice-President—R. H. Rogers, B.A. Treasurer—E. W. Hammond. Secretary—R. C. Paterson, Arts '98.

Committee.—Medicine: S. A. Ross, '99; J. L. Todd, '00; M. Hutchison, '01; Applied Sciencet A. W. Davis, '98; H. P. Archibald, '98; W. W. Colpitts, '99; Arts: R. C. Paterson, '98: F. S. Patch, '99; E. Shepherd, '00; Law: R. H. Rogers, B.A., '98; M. Robertson, '99; Comp. Medicine: E. W. Hammond, '99; Y. Kato, '99.

# MCGILL HOCKEY CLUB.

President—W. G. Bishop, Arts '98. Vice-President—Percy Butler, App. Sc. '98. Sec.-Treasurer—Colin K. Russel, Med. '01. Committee—Applied Science: N. M. Yuile, '99; L. O. Howard, '01; Arts: P. Molson, '01; A. T. Rowell, '00; Medicine: Ross, '99; A. T. Mussen, '98. Law; W. G. M. Robertson, '99; S. G. Archibald, 'co.

# MCGILL GLEE, BANJO AND MANDOLIN CLUB.

OFFICERS FOR 1898-99. Hon.-President—Prof. Capper. President—W. W. Colpitts, App. Sc. '99. Vice-President—R. E. McConnell, Arts '98, Med. '00. Secretary—R. L. Gardner, Arts '99, Med. '01. Business Manager—A. F. Byers, App. Sc. '00. Asst: Business Manager—G. T. Hyde, App. Sc. '99. Leader Glee Club—E. Burke, Law '00. Asst. Leader Glee Club—(Unappointed.) Leader Banjo Club—(Acting)—R. E. McConnell. Asst. Leader Banjo Club—(Unappointed.) Leader Mandolin Club—D. F. Wood, Med. '08.

THE an da of an DOI ing the ered the pete tual coll petu The valu ques

I

THE WIL with the r THE PETH aanou opene Lots for I McTa THE UNIVI by hin 31st, UNIVERSITS of Frin Esq., i

THE JOHN of the derick THE WILLIA Donald, of his e

4. END

In 1883, a G Esq., M... the Grad the Univ the Silve

# 356

# BENEFACTORS OF

# McGill University, Montreal.

# I. GENERAL ENDOWMENTS AND SUBSCRIPTIONS.

### 1. ORIGINAL ENDOWMENT, 1811.

THE HONORABLE JAMES McG'LL, who was born at Glasgow 6th Oct. 1744, and died at Montreal, 19th Dec.. 1813, by his last will and testament, under date 8th January, 1811, devised the estate of Burnside, situated near the city of Montreal, and containing forty-seven acres of land, with the Manor House and Buildings thereon erected, and also bequeathed the sum of ten thousand pounds in money unto the "Royal Institution for the Advancement of Learning," a Corporation constituted in virtue of an Act of Parliament passed in the Forty-first Year of the Reign of His Majesty, King George the Third, to crect and establish a University or College, for the purpose of Education and the advancement of learning, in the Province of Lower Canada, with a competent number of Professors and teachers to render such Establishment effectual and beneficial for the purposes intended; requiring that one of the colleges to be comprised in the said University should be named and perpetually be known and distinguished by the appellation of " McGill College. The value of the above mentioned property was estimated at the date of the

quest at...... \$120,000

## 2. UNIVERSITY BUILDINGS, EFC.

THE WILLIAM MOLSON HALL, being the west wing of McGill College buildings with the connecting Corridors and Class Rooms, was erected in 1861,through the munificent donation of the founder whose name it bears.

THE MUNIFICENT donation of the founder whose name it bears.
THE PETER REDPATH MUSEUM, the gift of the donor whose name it bears, was announced by him as a donation to the University in 1880, and formally opened August, 1882.
Lots for University buildings adjoining the College grounds confronting on McTavish St., presented by J. H. R. Molson, Esq., -\$42,500.
THE UNIVERSITY LIBRARY BUILDING, the gift of Peter Redpath, Esq., announced by him as a gift to the University in 1891, and formally opened Oct. 21et 1893.

31st, 1893.

UNIVERSITY OFFICES, Rooms in East Wing remodeled and furnished for offices of Frincipal and Secretary and for a Board Room by W. C. McDonald, Esq., in 1895.

# 3. ENDOWED CHAIRS, ETC.

THE JOHN FROTHINGHAM PRINCIPAL FUND, to be invested for the endowment

 THE JOINT FROMMAN FRISTIAL FORD, to be invessed for the endowment of the Principalship of the University; founded in 1889 by the Rev. Frederick Frothingham and Mrs. J. H. R. Molson, -\$40,000.
 THE WILLIAM C. MCDONALD AUXILIARY FUND, founded in 1897, by W. C. McDonald, Esq., the interest to be used solely to maintain the income of certain of his endowments on a five per cent. per annum basis,-\$227,500.

### 4. ENDOWMENTS AND DONATIONS OF MEDALS AND PRIZES.

In 1883, a Gold, a Silver and a Bronze Medal were given by R. J. Wicksteed, Esq., M.A., LL D., for competition in "Physical Culture," by Students in the Graduating Class and second year of any Faculty, who have attended the University Gymnasium. The Gold Medal was continued to 1889 and the Silver and Bronze have been continued to date.

'00; S phries,

> hibald, h, '99; 11, '99;

Hut-

1, '01; A. T. 1, 'co. Ottawa Valley Graduates' Society's Exhibition. For competition by candidates from the Ottawa Valley at the June matriculation examinations of any Faculty. Value, \$50.00. Given annually since 1895.
A Prize given by the British Columbia Society of Graduates of McGill University to be divided amongst the five Faculties. Annual value \$50.00. Given annually since 1896.

nually since 1896.

# 5. SUBSCRIPTIONS TO GENERAL ENDOWMENT.

### 1856.

John Frothingham, Esq	2000
John Torrance, Esq	2000
James B. Greenshields, Esq	1200
Wm. Busby Lambe, Esq	1200
Sir George Simpson, Knight	1000
Henry Thomas, Esq	1000
John Redpath, Esq	1000
James McDougall, Esq	1000
James Torrance, Esq.	1000
Hon. James Ferrier	1000
Harrison Stephens, Esq;	800
Henry Chapman, Esq	600
Hon. Peter McGill	600
John James Day, Esq	600
Thomas Brown Anderson, Esq	600
Peter Redpath, Esq	600
Thomas M. Taylor, Esq	600
Joseph Mackay, Esq	690
Donald Lorn McDougall, Esq	6.0
Hon. Sir John Rose	600
Charles Alexander, Esq	600

Forward	9,200
Moses E. David, Esq	600
Wm. Carter, Esq	600
Thomas Patton, Esq	600
Wm. Workman, Esq	600
Hon. Luther H. Holton	600
Henry Lyman, Esq	600
David Torrance, Esq	000
Edwin Atwater, Esq	600
Theodore Hart, Esq	600
Wm. Forsyth Grant, Esq	600
Robert Campbell, Esq	600
Alfred Savage, Esq	600
James Ferrier, jun., Esq	600
Wm. Stephen, Esq	600
N. S. Whitney, Esq	600
William Dow, Esq	600
William Watson, Esq	6(0
Edward and Alicia Major	
Hon. Sir A. T. Galt.	
John R. Esdaile, Esq	
, - 1	

Total.....\$30,560

John Frothingham, Esq ... ...... \$5150 B. Gib., Esq..... Messrs. A. & W. Robertson.... 600 600

# Forward .....\$24,350

Forward ..... \$19,200

1881-82. Hugh McLennan. Esq...... \$5000

1871.

G. A. Drummond, Esq	4000
George Hague, Esq	3000
M. H. Gault, Esq	2000
Andrew Robertson, Esq	1000
Robertson Campbell, Esq	
Sir Jos. and Lady Hickson	
Mrs. Andrew Dow	1000
Alexander Murray, Esq	1000
Miss Orkney	
Hector McKenzie, Esq	1000

Forward ......\$21.000

Forward ...... \*\$24,350 300 250 100 100 60 50

Total .....\$25,210

Forward	1,000
0. S. Wood, Esq	1000
J.B. Greenshields, Esq. (London)	1000
Warden King, Esq	1000
W. P. Cumming, Esq	1000
Mrs. Hew Ramsay	500
R. A. Ramsay, Esq	500
H. H. Wood, Esq	500
James Burnett, Esq.	500
Charles Gibb, Esq	500
J. S. McLachlan, Esq	200

Total ...... \$27,700

John H. R. W. C. McDo Peter Redpat Hon. Sir D. A Hon. James 1 Sir Joseph H Hugh McLenn E, B. Greensl George Hague John Molson, Samuel Finley Mrs. Mackay,

versity 'en an-

7,700

# 359

# 1883-84.

# Edward Mackay, Esq ...... \$5,000

# 6. ENDOWMENT FUND FOR GENERAL PURPOSES.

# 1897.

# Bequest of the late John H. R. Molson, Esq., \$100,00C.

# 7. SUBSCRIPTION FOR IMPROVEMENTS TO COLLEGE, 1856.

# Hon. Charles Dewey Day ..... \$200

# 8. SUBSCRIPTIONS FOR CURRENT EXPENSES, 1881-82.

Principal Dawson					 \$1000	
J. H. R. Molson, Esq	1000	per annu	m, 5 years,	being	 5000	
George Stephen, Esq	1000	•	"	"	 5000	
Hon. Donald A. Smith	1000	"	" (	"	 5000	
David Morrice, Esq	200	"	44	"	 1000	
Messrs. Gault Brothers & Co	200	"	46	"	 1000	
Messrs. S. H. & A. S. Ewing	200	46	44		 1000	
Hon. Robert MacKay	300	"	2	"	 600	
Jonathan Hodgson, Esq	100	"	5	"	 500	
Geo. M. Kinghorn, Esq	100	44	44	"	 500	
David J. Greenshields, Esq					 300	
Thomas Craig, Esq	100	44	2	"	 206	
John Rankin, Esq					 200	
John Duncan, Esq					200	
George Brush, Esq., \$25 for five yes	ars, bei	ng			 125	
Robert Benny, Esq					 100	
Miss E. A. Ramsay,					100	
Hugh Paton, Esq., \$50 for two year	rs, bein	g			 100	
J. M. Douglas, Esq					 50	
James Court, Esq					 50	

Total ...... \$22,025

1

Ł

# 1887-88.

John H. R. Molson, Esq	\$1000	per	annum,	3	years,	being	 \$3000	
W. C. McDonald, Esq	1000		"	"			 3000	
Peter Redpath, Esq			"	"		""	 3000	
Hon. Sir D. A. Smith, K.C.M.G	1000		"	"		46	 3000	
Hon. James Ferrier	500		"	"		66	 1500	
Sir Joseph Hickson	500		"	"		**	 1500	
Hugh McLennan, Esq	250		"	"		66	 750	
E, B. Greenshields, Esq	250		"	46		"	 750	
George Hague, Esq	250		"	.6		"	 750	
John' Molson, Esq	250		"	6.		46	 750	
Samuel Finley, Esq	250		.4	"		"	 750	
Mrs. Mackay, \$100 annually, 1889							 500	

Total ..... \$19,256

# 9. SUBSCRIPTIONS FOR A BUILDING FOR THE CARPENTER COLLEC-TION OF SHELLS.

360

### 1868.

Peter Redpath, Esq\$	500	Forward \$	1,600
William Molson, Esq.	500	Geo, H. Frothingham, Esq	100
Harrison Stephens, Esq	100	Wm Dow, Esq	100
Robert J. Reekie, Esq	100	Thomas Rimmer, Esq	100
John H. R. Molson, Esq	100	Andrew Robertson, Esq	100
Sir Wm. E. Logan, F.R.S	100	Mrs. Redpath	100
John Molson, Esq	100	Benaiah Gibb, Esq	50
Thes. Workman, Esq., M.P	100	Hon. John Rose	50
Forward \$	1,600	Total\$	2,200

## 10. SUBSCRIPTIONS FOR THE ERECTION OF THE LODGE AND GATES.

William Molson, Esq\$	100 1	Forward	,100
	100	John Frothingham, Esq	100
	100	James A. Mathewson, Esq	100
	100	Peter Redpath, Esq	100
	100	G. H. Frothingham, Esq	100
	100	G. D. Ferrier, Esq	100
	100	John Smith, Esq	100
	100	Charles Alexander, Esq	100
	100	J. Evans, Esq	100
	100	Henry Lyman, Esq	50
	100		
		Total	,950

Total.....\$ 1,100

1

### 11. LIBRARY AND MUSEUM.

Special Collections of Books presented to the Library.

- Special Collections of Books presented to the Library.
   The Peter Redpath Collection of Historical Books, presented by Peter Redpath, Esq., of Montreal, 3,500 Volumes, with subsequent additions.
   The Robson Collection of works in Archaeology and General Literature, presented by Dr. John Robson, of Warrington, England, 3,436 Volumes.
   The Charles Alexander Collection of Classical Works, presented by C. Alexander, Esq., of Montreal, 221 Volumes.
   Frederick Griffin, Esq., Q. C., Collection of Books, being the whole of his Library, bequeathed by his will, 2695 Volumes.
   The Hon. Mr. Justice Mackay, Collection of Books, being the whole of his Library, 2007 Volumes.
   The "T. D. King Shakespeare Collection," presented by the Hon. Sir Donald A. Smith and W. C. McDonald, Esq., of Montreal, 214 Volumes. Volumes.

# Endowments for Library.

Wm. Molson, Esq., for Endow-	Forward \$ 6,000
ment of a Library Fund (1871)\$4,000	A friend, by the Hon. F. W. Tor-
Hon. F. W. Torrance for Endow-	rance, for Endowment of a
ment of Mental, Moral and Poli-	Library Fund (1882) 400
tical Philosophy Book Fund	Hugh S. McLennan, Library En-
(1876) 1,000	dowment, a gift from Estate
Mrs. Redpath, for the Endow-	late Hugh S. McLennan to the
ment of the Wm. Wood Red-	Library of McGill College, the
path Memorial Fund (1881) 1,000	income to be applied to binding
Forward	(1892)
	Total

John T Book Andrew plied The Gra plied chase do The lat Beque (1887) Andrew Librar Applie Hon. Sir purcha W. Bo Ottawa ciety, f Univers

Ph.L 3. The Co prese 4. The M M. M 5. The L Histo F.R.S 6. The Da Colle 7. The Boy and J. 8. R. Mort 9. Collecti ernors (See al. Annua

1. The H

2. The C

Wm. Molson

# DLLEC-

...

..

...

..\$1,600 100 100 100 100 190 ... 50 50 .\$ 2,200 FATES. .\$ 1,100 100 100 100 100 100 100 100 100 50 \$1,950 r Redature, nes. by C. of his of his n. Sır g 214 6,000

400

250

6,650

# 361

# Subscriptions, etc., to Library.

John Thorburn, for purchase of	Forward\$ 1,424
Books\$ 90	Peter Redpath, Esq., in aid of
Andrew Drummond, do., for Ap-	the new catalogue of the Li-
plied Science 25	brary (1892)
The Graduates in Arts and Ap-	Mrs. Peter Redpath for mainte-
plied Science of 1885 for pur-	nance of Library, \$5,000 per
chase of Books 31	annum s'nce 1894 20,000
do do of 1886 28	Hon. Sir Donald A. Smith, do-
The late R. A. Ramsav, Esq., Bequest for purchase of books	nation for the purchase of books for the Library, particu-
(1887) 1,000	larly in the French Depart.
Andrew Drummond, Esq., to	ment (1897) 250
Library Fund of Faculty of	John H. R. Molson, donation for
Applied Science 25	purchase of books for the
Hon. Sir Donald A. Smith, for	Library (1897) 195
purchase of books from the R.	Hon. Treas. Redpath Memorial
W. Boodle Library 200 Ottawa Valley Graduates' So-	Fund, London, England. The balance remaining over of the
ciety, for binding books in the	above fund, to be used for
University Library	purchase of books for the Li-
	brary 47
Forward\$ 1,424	·
	Total
Secolal Collections	and to the Marrie
Special Collections pr	resented to the Museum.

 The Holmes Herbarium, presented by the late Andrew F. Holmes, M.D.
 The Carpenter Collection of Shells, presented by the late P. P. Carpenter, Ph.D.

The Collection of Casts of Ivory Carvings, issued by the Arundel Society, presented by Henry Chapman, Esq.
 The McCulloch Collection of Birds and Mammals, collected by the late Dr.

- M. McCulloch of Montreal, and presented by his heirs. The Logan Memorial Collections of Specimens in Geology and Natural History, presented by the heirs of the Late Sir W. E. Logan, LL.D., 5. The F.R.S.
- 6. The Dawson Collection in Geology and Palæontology, being the Private Collections of Principal Dawson, presented by him to the Museum. 7. The Bowles Collection of Lepidoptera, presented by W. C. McDonald, Esq.,

and J. H. Burland, Esq. 8. R. Morton Middleton, jr., London, Eng., Collection of Plants. 9. Collection of Butterflies, presented by the Members of the Board of Gov-

ernors of the University. (See also "List of Donations to the Library and Museum," printed in the

Annual Report of the University and Report of the Museum.)

# Endowment for the Museum.

Wm. Molson, Esq., for the Endowment of a Museum Fund (1873) ......\$2,000

# 362

### Subscriptions, etc., for the Museum.

T. J. Claxton, Esq., for pur- chase of Specimens for Mu- seum	Forward
Peter Redpath, Esq., for Museum	A friend, for the purchase of spe-
expenses, \$1,000 per annum from 1882 to 1893 12,000	cimens for the Museum
Mrs. Peter Redpath, for Museum	of books on "Butterflies of
expenses, 1894 to 1897 5,500	Eastern U S. and Canada." 50
Mrs. H. G. Frothingham, for the arrangement of Dr. Carpen-	Hon. Sir Donald A. Smith, for mounting skin and skeleton of
ter's Collection of Mazatlan shells	Musk Ox 150
Peter Redpath, Esq., for im-	Total\$30,483
provements to Museum (1891). 1,000	
Forward\$18,983	

### 12. MISCELLANEOUS.

Chas. T. Blackman, Esq., of Montreal, the gift of a Telescope and Astro-	
nomical Instruments called after his name.	
J. J. Arnton bequest to McGill University (1895) \$	

900 ..... 150

# 13. UNIVERSITY PORTRAITS AND BUSTS.

Portrait of the Founder, presented by the late Thomas Blackwood, Esq.

Portrait of William Molson, Esq., presented to the University. Bust of William Molson, Esq., by Marshall Wood, presented by Graduates of

the University.

Portrait of Peter Redpath, Esq , painted by Sydney Hodges, presented by Citizens of Montreal.

Portrait of Rev. Dr. Leach, by Wyatt Eaton, presented by Friends and Gradu-ates of the University.

Portrait of Sir William Dawson, by Wyatt Eaton, presented by Friends and Graduates of the University. Portrait of Hon. James Ferrier, by Robert Harris, presented by Friends and

Graduates of the University.

Portrait of Peter McGill, presented (through Mr. A. T. Taylor), by Judge Parker, of Edinburgh. Portrait of Dr. William Robertson, founder of the Medical Faculty, presented in

Portrait of Dr. William Rober'son, founder of the Medical Faculty, presented in loving remembrance by his family and descendants.
Bust of Peter Redpath, Esq., by Reynolds Stephens, presented by Mr. Redpath's personal friends in England.
Portrait of Peter Redpath, Esq., by Robert Earris, presented by Friends and Undergraduates of the University.
Portrait of Mrs. Peter Redpath, by Robert Harris, presented by the Governors of the University.

of the University.

THE MOLSON the Ho Esq.-\$ THE L'ETER | Philosop THE LOGAN C F.R.S., a THE JOHN FI dowed by with a fu THE MAJOR L of the lat THE DAVID J. ulties of the late I half of w THE WILLIAM Applied 1 000; in 18 THE CHARLES G:

II. EN

THE WILLIAM C. Arts and I nounced by ruary, 1893. THE W. C. MCDO Arts and Ap

This endowment vely for prov ing staff of t H W

3. THE JANE REDPAT Redpath, of T

THE MCDONALD S Arts-founded William C. M

..... \$18,983 1 Expenses 7,000 ..... ase of speyum..... 4,300 purchase erflies of anada."... 50 mith, for keleton of ...... 150

.....\$30,483

nd Astro-

.....\$ 900 cting the 150 .....

od, Esq.

Graduates of

ented by Citi-

ds and Gradu-

· Friends and

Friends and

r), by Judge

, presented in

Ir. Redpath's

Friends and

ie Governors

# 363

### II. ENDOWMENTS AND SUBSCRIPTIONS FOR THE FACULTY OF ARTS.

# 1. BUILDINGS, CHAIRS, ETC.

# Endowment Fund, 1856.

John Gordon McKenzie, Esq., \$2,000 Ira Gould, Esq., 2,300

### Total, \$4,300

- THE MOLSON CHAIR OF ENGLISH LANGUAGE AND LITERATURF, in 1856, endowed by the Honorable John Molson, Thomas Molson, Esq., and William Molson, Esq.-\$20,000; and supplemented in 1892 by John H. R. Molson, Esq., with a further sum of \$20,000. Total, \$40,000.

- with a further sum of \$20,000. Total, \$40,000.
  THE I'ETER REDPATH CHAIR OF PURE MATHEMATICS (founded as Chair of Natural Philosophy), in 1871, endowed by Peter Redpath, Esq., -\$20,000.
  THE LOGAN CHAIR OF GEOLOGY, in 1871, endowed by Sir W. E. Logan, LL.D., F.R.S., and Hart Logan, Esq., -\$20,000.
  THE JOHN FROTHINGHAM CHAIR OF MENTAL AND MORAL PHILOSOPHY, 1873, endowed by Miss Louisa Frothingham, -\$20,000, and supplemented in 1891 with a further sum of \$20,000. Total, \$40,000.
  THE MAJOR HIRAM MILLS CHAIR OF CLASSICS, in 1882, endowed by the last will of the late Major Hiram Mills of Montreal. -\$42,000.
- of the late Major Hiram Mills, of Montreal, -\$42,000. THE DAVID J. GREENSHIELDS CHAIE OF CHEMISTRY AND MINERALOGY in the Fac-
- ulties of Arts and Applied Science, in 1883, endowed by the last will of the late David J. Greenshields, Esq., of Montreal, with the sum of \$40,000 half of which is devoted to the Faculty of Arts.
- THE WILLIAM C. MCDONALD CHAIRS OF PHYSICS, in the Faculties of Arts and Applied Science, endowed by William C. McDonald, Esq., in 1890,-\$50,-000; in 1893,-\$50,000. Total, \$100.000. THE CHARLES GIBB BOTANICAL ENDOWMENT, SUBScriptions received to date :

A Friend,-

\$\$,000. - 200. Total \$8,200. Mrs. Catherine Hill,-

- THE WILLIAM C. McDonald Physics Building and Equipment, in the Faculties of Arts and Applied Science. The gift of William C. McDonald, Esq., announced by him as a gift to the University in 1890, and formally opened Feb-
- ruary, 1893. THE W. C. MCDONALD PHYSICS BUILDING Maintenance Fund in the Faculties of Arts and Applied Science, endowed by W. C. McDonald, Esq.,-\$150,000.

### 2. ENDOWMENT FOR PENSION FUND.

This endowment was given in 1894 to be invested and the revenue used exclusively for providing Pensions or Retiring Allowances for members of the teaching staff of the Faculties of Arts and Applied Science.

Hon. Sir Donald A. Smith,	\$50,000
John H. R. Molson, Esq.,	50,000
William C. McDonald, Esq.,	50,000

### Total, \$150,000

### 3. EXHIBITIONS AND SCHOLARSHIPS, ETC.

THE JANE REDPATH EXHIBITION, in the Faculty of Arts,—founded in 1868 by Mrs. Redpath, of Terrace Bank, Montreal, and endowed with the sum of \$1,667. THE MCDONALD SCHOLARSHIPS AND EXHIBITIONS, 10 in number, in the Faculty of Arts—founded in 1871, and endowed in 1882 with the sum of \$25,000 by William C. McDonald, Esq.

THE CHARLES ALEXANDER SCHOLARSHIP, for Classics-founded in 1871 by Charles Alexander, Esq. Endowed in 1893 with the sum of \$2,000.

THE BARBARA SCOTT SCHOLARSHIP FOR CLASSICAL LANGUAGE AND LITERATUREfounded in 1884 by the last will of the late Miss Barbara Scott of Montreal, in the sum of \$2,000.

THE GEORGE HAGUE EXHIBITION—founded in 1881—Annual value \$125. THE MAJOR HIRAM MILLS MEDAL AND SCHOLARSHIP—founded by the will of the late Major Hiram Mills of Montreal, and endowed with the sum of \$1,500.

T. M. THOMPSON, Esq. - \$250 for two Exhibitions in September, 1871 ; \$200 for two Exhibitions in 1872,-\$450.

REV. COLIN C. STUART-for the "Stuart Prize in Hebrew,"-\$60.

THE TAYLOR SCHOLARSHIP-founded in 1871, by T. M. Taylor, Esq.-Annual

value \$100-terminated in 1878. PROFESSOR ALEXANDER JOHNSON-for Scholarship for three Sessions, terminated

1886-87,-\$350. HER MAJESTY'S COMMISSION for the Exhibition of 1851-Nomination Scholarships

for 1891, 1893, 1895 and 1897, value £150 annually, tenable for two years. THE PHILIP CARPENTER FELLOWSHIP--founded by Mrs. Philip Carpenter, for the Maintenance of a Post-Graduation Teaching Fellowship or Scholarship in Natural Science or some branch thereof in the Faculty of Arts in McGill College, endowed in 1892 with the sum of \$7,000.

A Lady, to provide four free tuitions in the Faculty of Arts for sessions 1892-93 and 1893-94.

THE NEW YORK GRADUATES SOCIETY EXHIBITION-a gift of \$60 in 1897, for an Exhibition in the Faculty of Arts, to be associated with the name of Sir William Dawson.

To provide Bursaries in the Faculty of Arts 1898, subscriptions from. \$1,000

### W. W. Cgilvie, Hugh McLennan,

### 4. ENDOWMENTS AND DONATIONS OF MEDALS AND PRIZES.

120

In 1856 Henry Chapman, Esq., founded a gold medal, to be named the "Henry Chapman Gold Medal," to be given annually in the graduating class in Arts. This medal was endowed by Mr. Chapman in 1874 with the sum of \$700.

In 1860 the sum of £200, presented to the College by H. R. H. the Prince of Wales, was applied to the foundation of a Gold Medal, to be called the Prince of Wales Gold Medal," which is given in the graduating class for Honour Studies in Mental and Moral Philosophy.

In 1864 the "Anne Molson Gold Medal" was founded and endowed by Mrs. John Molson of Belmont Hall, Montreal, for an Honour Course in Mathematics and Physics.

In the same year the "Shakespeare Gold Medal," for an Honour Course. to comprise and include the works of Shakespeare and the Literature of England from his time to the time of Addison, both inclusive, and such other accessory subjects as the Corporation may from time to time appoint, was founded and endowed by citizens of Montreal, on occasion of the three hundredth anniversary of the birth of Shakespeare.

In the same year the "Logan Gold Medal," for an Honour Course in Geology and Natural Science, was founded and endowed by Sir William Logan, LL.D., F.R.S., F.G.S., etc.

In 1874 a Gold and a Silver Medal were given by His Excellency the Earl of Dufferin, Governor-General of Canada, for competition in the Faculty of Arts, and continued till 1878.

In 1875 the "Neil Stuart prize in Hebrew" was endowed by Neil Stuart, Esq., of Vankleek Hill, in the sum of \$340.

In 1880 a Gold and a Silver Medal were given by His Excellency the Marquis of Lorne, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science; continued till 1883.

In 1884 a ( Lansd Facul contir In 1889 a Gover Arts, till 18 ТНЕ "СНА nually ln 1894 a Aberd Facult Contin

5. SUBSC

Principal Hon. Sir I J. H. R. M Mrs. J. H. G. Hague, Mrs. Redps Hugh Mek Robert Moa W. C. Mel **Charles** Gi Miss Orkne Robert Mac Mrs. Wm. Mrs. John John Stirli Warden Ki Miss Hall .. Robert An D. A. P. W Hugh McL Sir Joseph Mrs. Philli

Hugh McLe Gilman Che James Johr James Sless A friend .... Hugh Graha A. F. Gault W. T. Costi Jonathan B

Fo

Hon. Sir Do John H. R. William C.

7 Charles

RATURE-Montreal,

of the late 10. \$200 for

-Annual

erminated

holarships years. r, for the larship in in McGill

ıs 1892-93

)7, for an ne of Sir

### IZES.

· "Henry s in Arts. \$700. Prince of called the r class for

Mrs. John natics and

se. to comf England her accesas founded dredth an-

1 Geology an, LL.D.,

arl of Dufty of Arts,

rt, Esq., of

Marquis of 1 the Fac-1 Science ;

# 365

- In 1884 a Gold and a Silver Medal were given by His Excellency the Marquis of Lansdowne, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science, continued till 1888.
- In 1889 a Gold and a Silver Medal were given by His Excellency Lord Stanley, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science. Continued till 1893.
- THE "CHARLES G. COSTER MEMORIAL PRIZE" for general proficiency—given annually by Colin H. Livingstone, Esq., B.A.; founded in 1889.
  In 1894 a Gold and a Silver Medal were given by His Excellency the Earl of Aberdeen, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science. Continued till 1898.

### 5. SUBSCRIPTIONS FOR THE SUPPORT OF THE CHAIR OF BOTANY, 1883-84.

Principal Dawson	\$500	per annum,	for 5	years, be	eing	\$2,500
Hon. Sir D. A. Smith	250		64	44		1,250
J. H. R. Molson, Esq	100	44	66	44		500
Mrs. J. H. R. Molson	100	66	44	66		500
G. Hague, Esq	100	6.	44	66		500
Mrs. Redpath	100	66	46	46		500
Hugh Mekay, Esq		6.6	46	44		500
Robert Moat, Esq	100	44	44	44 .		500
W. C. McDonald, Esq	100	66	66	46		500
Charles Gibb, Esq	56	"	44			250
Miss Orkney	50	4 4	66	44		250
Robert Mackay, Esq	50	44	66	44		250
Mrs. Wm. Molson	50	44	46	**		250
Mrs. John Molson		66	44	44		250
John Stirling, Esq		44	64	4.6		250
Warden King, Esq		4.6	46	44		250
Miss Hall		24	**	**		. 250
Robert Angus, Esq		14	**	**		. 250
D. A. P. Watt, Esq		46	66	"		. 250
Hugh McLennan, Esq			۴.	44		. 125
Sir Joseph Hickson		44	44	66		. 50
Mrs. Phillips						. 20

# \$9,945

# 6. BOTANIC GARDEN, ETC.

Subscriptions, 1890-91.

Hugh McLennan, Esq Gilman Cheney, Esq James Johnston, Esq James Slessor, Esq	$100 \\ 100 \\ 100$	Forward Jonathan Hodgson, Esq Robert Mackay, Esq H. Shorey, Esq J. S. Shearer, Esq	$\begin{array}{c}100\\100\end{array}$
A friend Hugh Graham, Esq A. F. Gault, Esq W. T. Costigan, Esq Jonathan Brown, Esq	100 100 100	Geo. Sumner, Esq A. Ramsay & Co Garth & Co	25 25 25

### Forward ..... \$900

Total ..... \$1,275

# To Erect Plant House in Botanic Garden.

Hon. Sir Donald A. Smith	\$362		
John H. R. Molson, Esq	361		
William C. McDonald, Esq	361	02	

Total ......\$1,084 53

# 7. SUBSCRIPTIONS IN AID OF THE CHAIR OF HEBREW.

366

Warden King, Esqin	1889	\$50 per	annum,	3 y	ears,	beir	ıg	\$150
Principal Sir William Dawson	""	50	**	66		"		150
Hon. Hugh Mackay	"	50	44	46 .		"	1	150
A. F. Gault, Esq	"	25		66		66		75
Geo. Hague, Esq	66	25	44	66		44		75
T. A. Dawes, Esq	6.6	25	44	"		44		75
S. Carsley, Esq	"	25	"	46		"		75
S. Davis, Esqin	1892							20
Warden King, Esq	44	50 per	r annum	for	3 ves	ars .		150
A. F. Gault, Esq	"	50	46	66		"		150
Robert Mackay, Esq	44	50	44	66		"		150
Hugh McLennan, Esq	"	25	"	44		"		75
George Hague, Esq	44	25	44	**		"		15
T. A. Dawes, Esq	**	25	"	44		"		75
S. Carsley, Esq	"							25
J. Murphy, Esq	"							25

Total ......\$1,495

# 8. SUBSCRIPTIONS TO PROVIDE SESSIONAL LECTURERS, ETC.

Total...... \$32,427

### 9. ENDOWMENTS FOR APPARATUS.

# 10. SUBSCRIPTIONS, ETC., FOR APPARATUS.

Philosophical Apparatus, 1867.	Forward
William Molson, Esq \$500	W. C. McDonald, Esq., fittings
John H. R. Molson, Esq 500	of Upper Chemical Laboratory 2,075
Peter Redpath, Esq 500	A. J. Lawson, a Dynamo.
George Moffatt, Esq 250	Benjamin Dawson, 3 Micro-
Andrew Robertson, Esq 100	scopes
John Frothingham 100	Botanical Apparatus, 1897.
David Torrance, Esq 100	W. C. McDonald, Esq 420
Thos. J. Baron, B.A 50	Hugh McLennan, Esq 111
J. H. R., Molson, Esq., Dyna-	Samuel Finley, Esq 111
mo, Gas Engine and fixtures 1,792	A. F. Gault, Esq 111
Mrs. Redpath, Storage battery 400	
	Total
Forward \$4,292	

### 11. MISCELLANEOUS.

Hugh McLennan, Esq., subscription towards expense of table at the Biological Station, Wood's Holl, Mass., for McGill Professor of Botany (1896) ..... \$250

# III. S

1. T

This en to up con and

Hon. Sin 189 Hon. Sin Don

3.

The " of forme nish ann Universi Universi

IV. I

THE WIL will THE DAV ties Davi whic ТНЕ ТНО 1891 the s Engi there ery a WILLIAM Worl THE MAG dono 1893. THE MAC. and . him a THE WILL Appli in 189 W.

### g..... \$150 150 .... 150 ..... 75 75 75 ..... 75 ..... 20 ..... 150 ..... 150 ..... 150 ..... 75 ..... 15 ..... 75 ..... 25 ..... 25 ..... .....\$1,495

, ETC.

....\$23,500 6,300 ..... of 2,627 .... .... \$32,427

ent of Sciies of Arts ociation in .....\$1,500

.....\$4,292 ings tory 2,075

cro-

 420
 111
 111
 111

. ...\$7,120

Biological 6) ..... \$250

# 367

# III. SPECIAL COURSE FOR WOMEN IN THE FACULTY OF ARTS.

# THE DONALDA ENDOWMENT FOR THE HIGHER EDUCATION OF WOMEN.

This endowment, given by the Honourable Sir Donald A. Smith of Montreal, is to provide for the education of women in the subjects of the Faculty of Arts, up to the standard of the examination for B.A. in classes wholly separate, to 

### 2. MISCELLANEOUS SUBSCRIPTIONS.

Hon. Sir Donald A. Smith, for musical instruction in sessions 1889-90 and

1890-91... .....\$400 ..... ..... Hon. Sir Donald A. Smith, for appliances in Zoology in the special interest of

Donalda classes in 1895..... .....\$100

### 3. ENDOWMENT HELD IN TRUST BY THE BOARD OF ROYAL INSTITUTION.

The "Hannah Willard Lyman Memorial Fund," contributed by subscriptions of former pupils of Miss Lyman, and invested as a permanent endowment to fur-nish annually a Scholarship or Prizes in a "College for Women" affiliated to the University, or in classes for the Higher Education of Women, approved by the University. The amount of the fund is at present \$1,100.

# IV. ENDOWMENTS AND SUBSCRIPTIONS FOR THE FACULTY OF APPLIED SCIENCE.

### 1. BUILDINGS, CHAIRS, ETC.

THE WILLIAM SCOTT CHAIR OF CIVIL ENGINEERING, in 1884, endowed by the last will of the late Miss Barbara Scott, of Montreal.—\$30,000. THE DAVID J. GREENSHIELDS CHAIR OF CHEMISTRY AND MINERALOGY, in the Facul-

- ties of Arts and Applied Science, in 1883, endowed by the last will of the late David J. Greenshields, Esq., of Montreal, with the sum of \$40,000, half of which is devoted to the Faculty of Applied Science. THE THOMAS WORKMAN DEPARTMENT OF MECHANICAL ENGINEERING-founded in
- 1891 under the last will of the late Thomas Workman, Esq., who bequeathed the sum of \$117,000-\$60,000 for the maintenance of a Chair of Mechanical Engineering, with the assistance, shops, machinery and apparatus necessary thereto, \$57,000 to be expended in provision of necessary buildings, machinery and apparatus.

WILLIAM C. MCDONALD, Esq., in 1890, towards erection of Thomas Workman Workshops, \$20,000.

- THE MACDONALD ENGINEERING BUILDING AND EQUIPMENT-announced by the donor as a gift to the University in 1890, and formally opened February, 1893.
- THE MACDONALD PHYSICS BUILDING, AND EQUIPMENT in the Faculties of Arts and Applied Science, the gift of William C. McDonald, Esq., announced by him as a gift to the University in 1890, and formally opened February, 1893; THE WILLIAM C. McDONALD CHAIRS OF PHYSICS, in the Faculties of Arts and Applied Science, endowed by William C. McDonald, Esq., in 1890-\$50,000. in 1893, \$50,000. Total, \$100,030.

THE WILLIAM C. MCDONALD CHAIR OF ELECTRICAL ENGINEERING, endowed by Wm. C. McDonald, Esq. in 1891, with the sum of \$40,000.

THE MACDONALD ENGINEERING BUILDING MAINTENANCE FUND, endowed by W. C. McDonald, Esq., in 1892 and 1896 .- \$85,000.

THE MACDONALD PHYSICS BUILDING MAINTENANCE FUND in the Faculties of Arts and Applied Science, endowed by W. C. McDonald, Esq., in 1892 and 1896-\$150,000.

THE MACDONALD CHEMISTRY AND MINING BUILDING AND EQUIPMENT, given to the University by Wm, C. McDonald, Esq., in 1896.—\$240,000. THE MACDONALD CHEMISTRY AND MINING BUILDING MAINTENANCE FUND, endowed

by William C. Mcl. onald, Esq., in 1896.-\$135,000. THE WILLIAM C. McDonald CHAIR OF MINING AND METALLURGY, endowed in

1896 by William C. McDonald Chair of Mining and MetalLurgy, endowed in 1896 by William C. McDonald, Esq., with the sum of \$50,000.
 THE WILLIAM C. McDonald Chair of Architecture, endowed in 1896. by Wm. C. McDonald. Esq., with the sum of \$50,000.
 THE WILLIAM C. McDonald CHAIR of CHEMISTRY endowed in 1897 by William

C. McDonald, Esq., with the sum of \$50,000. THE WILLIAM C. MCDONALD ARCHITECTURAL DEPARTMENT MAINTENANCE FUND,

endowed by William C. McDonald, Esq., in 1898 .- \$10,000.

# 2. ENDOWMENT FOR PENSION FUND.

This endowment was given in 1894 to be invested and the revenue used exclu-sively for providing Pensions or Retiring Allowances for members of the teaching staff of the Faculties of Arts and Analised Science . teaching staff

i of the raculties of Arts and	Applied Science :
Hon. Sir Donald A. Smith,	\$50,000
John H. R. Molson, Esq.,	50,000
Wm. C. McDonald, Esq.,	50,000

### Total .....\$150,000

# 3. EXHIBITIONS AND SCHOLARSHIPS.

THE SCOTT EXHIBITION.-founded by the Caledonian Society of Montreal, in com-memoration of the Centenary of Sir Walter Scott, and endowed in 1872 with the sum of \$1,100 subscribed by members of the Society and other citizens of Montreal. The Exhibition is given annually in the Faculty of Applied Science-Annual value \$50.

THE BURLAND SCHOLARSHIP, founded 1882 by J. H. Burland, B.A., Sc., \$100 for a Scholarship in Applied Science for three years, being \$300.

HER MAJESTY'S COMMISSION for the Exhibition of 1851-Nomination Scholarships for 1891, 1893, 1895 and 1897, value £150 annually, each tenable for two

years. THE DR. T. STERRY HUNT SCHOLARSHIP—Founded in 1894 by the will of the late Dr. T. Sterry Hunt, and endowed with the sum of \$2,082, the income to be given and paid annually to a student or students of Chemistry.

### 4. MEDALS AND PRIZES.

In 1880, a Gold and a Silver Medal were given by His Excellency the Marquis of Lorne, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science; continued till 1883.

In 1884 a Gold and a Silver Medal were given by His Excellency the Marquis of Lansdowne, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science ; continued till 1888.

In 1885 the British Association Gold Medal for competition in the Graduating class in the Faculty of Applied Science, was founded by subscription of members of the British Association for the Advancement of Science, and by gitt of the Council of the Association, in commemoration of its meeting in Montreal in the year 1884.

Hon. Ja num fe Peter R annuu John H. per ai George (\$400) T. James annum Donald num f Miss Mar

In 188

In 1894

5. EN

Daniel Charles R. J. I

G A

til

de

of

nu

Sul W. C. M.

annum

0 ć

Subscrip

. E. B. Gree J. E. Bove Professor ]

F

lowed by

by W. C.

Arts and d 1896-

en to the

endowed

lowed in

. by Wm.

r William

ICE FUND,

ed exclu-'s of the

> , in com-872 with izeus of lied Sci-

100 for a

larships for two

the late me to be

rquis of in the Science;

rquis of n in the science;

duating of meml by gift in MonIn 1889 a Gold and a Silver Medal were given by His Excellency Lord Stanley, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science. Continued till 1893.

In 1894 a Gold and a Silver Medal were given by His Excellency the Earl of Aber-deen, Governor-General of Canada, the former for competition in the Faculty of Arts, the latter for competition in the Faculty of Applied Science. Continued till 1898.

# 5. ENDOWMENTS AND SUBSCRIPTIONS FOR MAINTENANCE OF FACULTY.

Endowment Fund.

Graduates' Endowment Fund.

R. J. Reekie, Esq..... 100

W.C.

Total ...... \$6,100

Graduates' Endowment Fund-Class 1890, \$70 a year for 5 years, \$350; received to date...\$ 85

# Annual Subscriptions, 1871-1879.

Hon. James Ferrier (\$100 per an-	Forward \$13,850
num for 10 years) \$1000 Peter Redpath, Esq. (\$400 per annum for 10 years) 4000 John H. R. Molson, Esq. (\$400 per annum for 10 years)	H. McLennan, Esq. (\$100 per annum for 5 years)
annum for 6 years) 600 Donald Ross, Esq. (\$50 per an- num for 5 years) 250 Miss Mary Frothingham (400 per annum for 3 years) 1200	years
Forward \$13,850	Total \$16,450

# Subscriptions towards Maintenance of Engineering Department.

McDonald,	Esq., sessions 1891-92 to	1897-98	\$56,341
do			
do		session 1894-95 and 1897-98	
do		the course of summer work g Students (1898)	

Total..... \$59,761

\$161

200

40

\$401

Subscriptions to provide lectures in Mechanical and Sanitary Engineering.

F. E. B. Greenshields, Esq J. E. Bovey, Esq Professor H. T. Bovey	\$50 50 61	Jeffrey H. Burland, B.A.Sc., \$100
Forward	\$161	Smaller amounts
Forward	\$101	Total

For

# Subscriptions for Maintenance of Chair of Practical Chemistry, 1862.

Hon. C. Dunkin, M.P Principal Dawson Peter Redpath, Esq	\$1200 1200 226	
Total		

For Maintenance of Chair of Mining Engineering and Metallurgy, 1891.

R. B. Angus, Esq\$2000	Forward \$4000 \$6200
Mrs. Dow 1000	E. K. Greene, Esq 750
Hugh McLennan, Esq 1000	Dr. T. Brainerd 750
Miss Benny 1000	A. F. Gault, Esq 750
T. A Dawes, Esq 750	Messrs. H. & A. Allan 750
A. A. Ayer, Esq 250	Hector Mackenzie, Esq 750
G. W. Reid, Esq 100	Peter Lyall, Esq 750
Evans Bros 100	James Ross, Esq 600
	A. Robertson, Esq 300
	John Duncan . Esq 300
Payable in Three Years.	Geo. Hague, Esq 300
	Jonathan Hodgson, Esq 300
Sir Wm. Dawson 1000	James Moore, Esq 200
Alex. Stuart, Esq. (Lon-	Messrs. Ames & Holden 150
don Eng	James Cooper Esa 150

Sir Al don, Eng)..... 1500 James Cooper, Esq..... 150 R. G. Reid, Esq..... 1500 - 10,800 \$17,000

### Forward......\$4000 \$6200 Total.....

Remodelling East Wing for Class Rooms for Faculty of Applied Science, 1888.

John H. R. Molson, Esq ..... \$3000 W. C. McDonald, Esq...... 3000

Total ...... \$6000

# 6. ENDOWMENTS FOR APPARATUS.

The Local Committee of the British Association for the Advancement of Science, to found the British Association Apparatus Fund in the Faculties of Arts and Applied Science, in commemoration of the meeting of the Association in Montreal in 884 .....\$1,500

### 7. SUBSCRIPTIONS, ETC., FOR APPARATUS.

A lady, for the purchase of Min- ing Models \$1000	Forward \$ for the purchase of appliances	1175
Thos. McDougall, Esq., for the same 25	for the department of Civil Engineering in Faculty of Ap-	
J. Livesey, Esq., through Dr. Harrington, for the same	plied Science Capt. Adams, Chemical Appar-	475
Geo. Stephen, Esq., for the same. 50 Chas. Gibb, B.A., donation for	atus J. H. Burland, B.A.Sc., Chemi-	10
Apparatus in Applied Science 50 The Local Committee for the	cal Apparatus	25
reception (1881) of American Society of Civil Engineers	veying and Geodetic Appara-	1500
Forward \$1175	Total \$3	3,185

8. LIS NI Abbott.

Adams, Americ Ohio)

Americ Archbal

Ashton

Bell Tel

Bertram

Birch &

Birks, H Bishop, Blackwei Blake M

Blake Pu

& Bost Bovey, P Bremner, British Trading large atory Brockhau Brodie & Brush, G. Cameron, Campbell Jordan Campbell Canadian (Toronto Canadian Ele Edi Canadian Col Canadian Timber of large atory, P Canadian ] Carsley, S Carus-Wils Cary, A. A Chadwick, Chanteloup Claxton, T Seantli Consumers' Ropes o

370

# 8. LIST OF SUBSCRIBERS AND DONORS TO THE EQUIPMENT OF THE NEW ENGINEERING BUILDINGS OF MCGILL UNIVERSITY, TO MAY, 1898.

Abbott, W.....Equipment Adams, Capt. R. C...Mining Photographs American Rail Joint Co. (Cleveland, Costigan, J ..... Equipment Ohio) ...... Specimens of Rail Joint American Steam Gauge Co., (Boston) Indicator. Archbald, H ..... ......Books Ashton Valve Co. (Boston) Sectional Valve Bell Telephone Co..... A set of **Telephone** Apparatus Bertram & Sons, J., (Dundas) ..... 24 in. Planer Birch & Co. J. (England) ..... Hydraulic Tubes Birks, Henry ..... Clock Bishop, George ..... Equipment Blake Pump Co., The Geo. (New York & Boston) ..... Pump Bovey, Prof H. T ..... Books Bremner, A..... \$50 British Columbian Mills, Timber and Trading Company, Timber Beams of large Scantling for Testing Labor-Brockhaus, Herr F. A ...... Books Cameron, General..... Rotary Drill Campbell Tile Co. (England), per Jordan & Locker,......Equipment Campbell, Kenneth ..... \$50 Canadian General Electric Co...... (Toronto), per F. Nichols...Equipment Canadian General Electric Co..... Electric Drill, Edison Generator Edison Street Railway Motor Canadian Government..... Collection of Canadian Timber Teredos Canadian Pacific Railway Co..... Timber for Testing, Timber Beams of large Scantling for Testing Laboratory, Photographs Canadian Rubber Co., Rubber Belting Chanteloup, E..... \$50 Claxton, T J......Timber Beams of large Scantling for Testing Laboratory Consumers' Cordage Co., (Halifax, N.S.) Ropes of different sizes for Testing purposes

atory

Cowen, Amos ...... Samples of Bricks Craig, Messrs. J. & M., (Kilmarnoch, Scotland)......Sanitary Sections (full size) and models Crocker-Wheeler Electric Motor Co., Darling, Brown & Sharpe (Providence, Dawson, W. B ..... Iron Rail showing effect of long immersion in water Dominion Wire Manfg Co., per F. Fairman......Shaper Drysdale, D ...... Tools Drysdale, W ..... Tools Earle, S R ..... Air Injector Edison General Electric Co..... Two 450 light dynamos, Brake Shoe and Disc. Egleston, Dr. (New York) ...... Framed Photograph of the Moon, Books,

Photos, etc. Electric Welding Company, (Boston) Equipment "Engineering Magazine" (New York

City) ...... Mining Illustrations and Photographs Eureka Tempered Copper Co .....

Equipment Ewan, A ......\$100

Felton & Gilleaume ..... Samples of Cable Wire, etc.

Furlong, G. W., B.A.Sc......Speci-mens of Pine and Wood bored by

Gardner & Son, R. W ..... 16 in. Lathe Gardner, R ..... Equipment Garth & Co ..... \$500 Garth Henry ....... Equipment Government of New South Wales ......

Collection of Australian Timbers Government of Queensland, Australia, **Collection of Queensland Timbers** 

Gower, W. E ..... Hadfield, Messrs. (Sheffield).Equipment Hamilton Bridge Works Co..... A Model of the Stoney Creek Arch

100 \$6200 750 750 750

1891.

62.

\$

> 150 150 - 10,800

> > \$17,000

ace, 1888.

.... \$6000

ement of culties of sociation ....\$1,500

.... \$1175 ces vil p-475 .... ar-10 .... ni-25 .... urra-1500 ....

... \$3,185

Electrical	Nicholson, Peter	
pliances,	Nicholson, Peter	
	Norton Ball-bearing Lifting-jacks	1
Harrison,	Norton Emery Wheel Co. (Worcester,	
& Clock	U.S.) Equipment	
\$1200	Notman, Wm Photographs	
\$200	Ogilvie, W\$500	
quipment	U.S.)	
	Parker, M Equipment	
ese Wood	Lacon, Lanner and Ladarphiene	
quipment	Peckham Motor Truck and Wheel Co.	
quipment	(Kingston, N.Y.)	
lock Drill	Model of Motor Truck	
quipment	Pelton Water Wheel Co. (New York)	
Cupola	Two Mctors	
	Pennsylvania Railroad Co Work-	
quipmen:	ing Drawings ef Locomotives (32)	
quipment	Phelps Engine Co., per A. R. Williams	
atling for	& Co., A. Dake Steam Engine, 4	
	Horse Power Engine	
n Turbine	Pillow, J. A \$250	
Pump	Pratt & Whitney (Hartford, Conn)	
Tools	Epicycloidal Gear Model	
\$534	Prowse, G. R Equipment	
able Co.,	Queensland Government per Sir	
ng Tables	Thomas McIlwraith	
d Engine	Collection of Timbers	
quipment	Radiator Co. (Toronto)\$500	
Franklin	Ramsay & Son, A \$100	
cimens &	Rathbun, E. W	
	proof Construction \$112	
quipment	Reddaway & Co., F Belt (value \$50) Redpath, F. R Equipment Redpath, Mrs \$100 Reed, G. W	
Books	Redpath, F. R Equipment	
vings and	Redpath, Mrs\$100	
Liverpool	Reed, G. W \$100	
	Reford. R \$1000	
Tools	Reid, R Equipment	
quipment	Reid, R. G \$1000	
quipment	Renouf, E. M Books	
\$300	Rhode Island Locomotive Works	
\$4000	Photos of Locomotives	
	Rife's Hydraulie Engine Mfg. Co.	
r Testing	(Roanoke, Va., U.S.A.)	
\$100 Timber	Hydraulie Ram	
Timber	Robb & Armstrong	
r Testing	80 H. P. High Speed Engine	
@100	Robertson, J Equipment	
\$100	Rogers, Professor (Waterville, Maine)	
oy, N.Y.)	Equipment	
Sand Box	Ross, James \$500 Rodden, W Equipment	
Elevator	Poral Floatrie Co	
nt (\$300)	Royal Electric Co	
quipment	12 Are Light Dynamos	
effect of	30 Light Stanley transformer	
enect of	Rutherford, W Equipment Sadler, G. (Robín & Sadler)	
	Badier, G. (Robin & Sadier)	
land Call	Belting (\$400) Seeley, John Insulators Scheeffer & Budenbery (Breaklyn N.Y.)	
lard Cell	Schooffor & Budenherry (Brocklas, N.V.)	
sformers	Schaeffer & Budenbery (Brooklyn, N.Y.)	104.70
stormers	Double Indicator	

Hamilton Powder Co..... Blasting Machine, and ap etc., for blasting.

372

Hearn & Harrison, per L. Barometer . . Hersey, R ..... 

Hughes & Stephenson ..... E. Hutton, W. H ..... .... E. Ingersoll Rock Drill Co....A. R Irwin & Hopper.....E Jordan & Locker...... Ed Kennedy, John...... Ed Timber Beams of large Scan

**Testing Laboratory** 

Kennedy, W. & Sons. American Kennedy, W. (Owen Sound) ... Kerr, R. & W King & Son, Warden..... Laughlin-Hough Drawing Ta Drawi

Laurie & Bro. J ..... . Compour Lawson, A. J..... E 

Photographs 

Lyster, A. G.....Draw Sketches of London and Docks

Macpherson, A ..... Timber fo

McLaren, D ..... McLaughlin Bros .....

beams of large Scantling fo Laboratory McNally & Co., W......

McPherson Sand Box Co. (Tr Model of a

Miller Bros. & Sons ..... mens of Cast-Iron showing mine water

Nalder Bros. & Co. (England) Stan

National Electric Mfg. Co..... 100 volt Transformer, Transformers

Scovil Sharp Eng Shear Shepp Sieme

Schol

Smith.

Smith. Spence tions struc Lock Smith,

Steel ( St. Geo Stirling

9. F.

Hugh P A. Joye R. Gard H. Gart Hughes R. Mitel

V. EN

Hon. Sir

Estal years by

Mrs. G. W H. A. Alla Hon. Sir ] Sir Georg R. B. Ang George A.

Ô

\$200

Sturtevant Co., The B. F. (Boston) ..... Blowers Sharp, Stewart & Co. (Manchester.

Swan Lamp Mfg. Co..... Lamps: Taylor, A. T..... \$300 Tees & Co...... Equipment Thomson-Houston Co. (Boston)...... Incandescent dynamos

Twyford & Co..... Equipment Vail, Stephen......Piece of first Telegraph Wire Used

Walker & Co., James ...... Tools 

Wiley & Sons, John (New York)...Books Yale & Towne Mfg. Co. (Stamford, Conn) ..... Equipment Yates & Thom ......

Blue Prints of Machinery

The above representing a total of about \$80,000.

### 9. FACULTY OF APPLIED SCIENCE LIBRARY ENDOWMENT, 1893.

Hugh Paton\$	25	/ F
A. Joyce	25	W. Rodden
R. Gardner	50	M. Parker
H. Garth	100	Robin & Sad
Hughes & Stephenson	100	J. Robertson
R. Mitchell	300	Mrs. John M

Eng) .... Equipment

Sheppard, Chas ..... \$200 Sheppard, Unas...... Siemens Bros. (London, Eng)..... Cable Samples

Smith, C. B ..... .....

Smith, R...... Equipment Spence, J. P., C.E...... Specifica-tions and Drawings showing con-

Smith, R. Guilford ..... Books

Steel Co. of Scotland, The .....

St. George, P. W ..... Models

Stirling Co., The .....

struction of Sault Ste. Marie Canal

Framed Photos of Bridges (2)

Samples of Cable Wire, etc.

Sectional Blue Prints of Boilers

Shearer, James .....

Smith, R

Locks

\$600 L Forward .....

Forward \$	600
W. Rodden	25-
M. Parker	25
Robin & Sadler	50
J. Robertson, Esq	50
Mrs. John McDougall (1895)	20
Total	770

# V. ENDOWMENTS AND SUBSCRIPTIONS IN AID OF THE

# FACULTY OF MEDICINE. 1. LEANCHOIL ENDOWMENT, 1884.

Hon. Sir Donald A. Smith, G.C.M.G ....... \$50,000

### 2. CAMPBELL MEMORIAL ENDOWMENT, 1884.

Established to commemorate the service rendered to the Faculty during 40 years by the late Dean, George W. Campbell, M.D., LL.D.

Mrs. G. W. Campbell \$	2000	Forward	\$8,000
H. A. Allan, Esq		Alex, Murray, Esq	1000
Hon, Sir D. A. Smith	1500	Robert Moat, Esq	1000
Sir George Stephen, Bart	1000	W. C. McDonald, Esq	1000
R. B. Angus, Esq	1000	A Friend	1000
	1000	Duncan McIntyre, Esq	1000

Forward ...... \$8,000

Forward ...... \$13,000

.....\$100 ......Two ing-jacks lorcester, quipment otographs .....\$500 quipment quipment quipment heel Co. ..... or Truck ew York)

o Mctors .... Worktives (32) Williams ngine, 4

.....\$250 onn) ..... ar Model quipment

r

..... Timbers .....\$500 .....\$100 s of Fire-......\$112 lue \$50) uipment ......\$100 .....\$100 .... \$1000 uipment ... \$1000 ... Books t8.... omotives lfg. Co. ..... ilic Ram ..... 1 Engine uipment Maine) uipment \$500 uipment ..... )vnamos nsformer uipment g (\$400) sulators n, N.Y.) ndicator

Forward \$1	13,000
A F Gault Fee	1000
M. H. Gault, Esq	1000
G. W. Stephens, Esq James Benning, Esq R. P. Howard, M.D G. B. & J. H. Burland, Esqs Miss Fligsbeth C. Benne	1000
James Benning Esa	1000
R. P. Howard M.D.	1000
G R & T U Parland Face	
Mice Elizabeth () D	1000
miss Enzabeth U. Denny	1000
J. C. Wilson, Esq	1000
Mrs. John Redpath	1000
Hon. John Hamilton	1000
Miss Orkney	1000
Hugh Mackay, Esq Hector Mackenzie, Esq Thomas Workman, Esq	1000
Hector Mackenzie, Esq	1000
Thomas Workman, Esq	1000
Hugh McLennar, Esq	1000
O. S. Wood, Esq Frank Buller, M.	1000
Frank Buller, M.	500
	500
Andrew Robert	500
Robert Macka	500
John Hope, Lat	500
Alex. Urquhart,	500
R. A. Smith, Esq	500
Guorge Hagne Ken	500
J. K. Ward, Esq	500
Warden King, Esq	500
J. K. Ward, Esq Warden King, Esq John Stirling, Esq John Rankin, Esq	500
John Rankin, Esq.	500
Robert Reford, Esq	500
Messrs. Cantlie, Ewan & Co	500
Messrs J & W Ogilvie	500
Messrs. J. & W. Ogilvie Randolph Hersey, Esq	500
John A Dillow Fac	
John A. Pillow, Esq	500
S. Carsley, Esq D. C. MacCallum, M.D	500
D. C. MacCallum, M.D.	500
Messrs. S. Greenshields, Son & Co.	500
Jonathan Hodgson, Esq George Ross, M.D.	500
George Ross, M.D	500
T. G. Roddick, M.D	500
T. G. Roddick, M.D Wm. Gardner, M.D	50C
Messrs. Cochrane, Cassils & Co	500
Sir Joseph Hickson	500
Allan Gilmour, Esq., Ottawa	500
Allan Gilmour, Esq., Ottawa R. W. Shepherd, Esq G. E. Fenwick, M.D Miles Williams, Esq	500
G. E. Fenwick, M.D.	300
Miles Williams, Eso	300
G. P. Girdwood, M.D	250
Charles F. Smithers, Esq	250
John Korry Fas	250
John Kerry, Esq A. Baumgarten, Esq	
P. W. Fimenhandt Fas	250
R. W. Elmenhorst, Esq	250
W. F. Lewis, Esq	250
George Armstrong, Esq	250
J. M. Douglas, Esq	250
Messrs. H. Lyman, Sons & Co	250
George Armstrong, Esq J. M. Douglas, Esq Messrs. H. Lyman, Sons & Co F. J. Shepherd, M.D	250
Duncan McEachran, Esq., F. R.	
C. V. S	200

Forward ...... \$46,300 Benj. Dawson, Esq..... 200 R. Wolff, Esq..... 150 James Stuart, M.D..... 150 A. T. Paterson, Esq..... H. W. Thornton, M.D. (New 100 H. H. w. thornton, a.D. (10)
Richmond, Q.)...
C. B. Harvey, M.D. (Yale, B.C.).
D. Cluness, M.D. (Nanaimo, B.C.)
W. Kinlock, Esq.
Hua, Richardson & Co....
Mrs. Cuthbort (N. Richmond, Q.). 100 100 100 100 100 Mrs. Cuthbert (N. Richmond, Q.). 100 J. M. Drake, M.D ..... 100 H. Diake, M.D.
Hugh Patton, Esq.
R. T. Godfrey, M.D.
T. A. Rodger, M.D.
W. A. Dyer, Esq.
Geo. W. Wood, M.D. (Faribault, Mino. 100 100 100 100 Minn.) A. A. Browne, M.D..... 100 100 Geo. Wilkins, M.D R. L. MacDonnell, M.D Jos. Workman, M.D. (Toronto)... Hon. Sir A. T. Galt Henry Lunam, B.A., M.D. (Camp-ballon, N.B. 100 100 50 50 bellfon, N.B.) T. J. Alloway, M.D..... R. J. B. Howard, M.D.... 50 30 25 Louis T. Marceau, M.D. (Napierville, Q.).... Griffith Evans, M.D. (Vet. Dept. 25 26 Army) J. J. Farley, M.D. (Belleville)..... Henry R. Gray, Esq..... J. E. Brouse, M.D. (Prescott)..... R. N Rinfret (Quebec) ..... Robert Howard, M.D. (St. Johns) Drs. J. & D. J. McIntosh (Vank-lock Hill) .... 25 25 20 20 20 20 15 10 10 10 D. A. McDougall, M.D. (Ottawa, D. A. McDougall, M.D. (Ottawa, O.).....
A. Poussette, M.D. (Sarnia, O)....
A. Ruttan, M.D. (Napanee, O.) ....
James Gunn, M.D. (Durham, O.)
J. McDiarmid, M.D. (Hensall, O.)
W. J. Derby, M.D. (Rockland, O.)
J. Gillies, M.D. (Teeswater, O.)....
J. B. Benson, M.D. (Chatham, N. R.). 10 10 10 10 5 5 5 N.B.). L. A. Fortier, M.D. (St. David 5 Q.)....A. McArthur, M.D. (Fort 5 J. Elgin, 0.) ..... ..... 5 John Campbell, M.D. (Seaforth, 0.).... 5

Total ......\$48,906

374

Dr. Ca Dr. Ho

Dr. Dr.

Dr. Mc

Forward......\$46,300

In 18

n F ir W In 187

SIR ]

SIR

MRS.

JOHN

DR. ]

JOSEI

5 WAL

J

ti

re p of THE I F

> G. W. W. E. Wm.

Rober Dunca

> The P Sum of M

Dr. Cr Dr. Ma

Dr. Go

# 3. ENDOWED CHAIRS, ETC.

SIR DONALD A. SMITH CHAIR OF PATHOLOGY, endowed in 1893 by the	
	\$50,000-
SIR DONALD A. SMITH ENDOWMENT FOR THE DEPARTMENT OF HYGIENE,	,
endowed in 1893 with the sum of	50,000-
MRS. MARY DOW BEQUEST-Bequest by the will of the late Mrs. Mary	
Dow for the Faculty of Medicine, 1893, \$10,000, less Government Tax	
of 10 per cent	9,000
JOHN H. R. MOLSON DONATION- in 1893, \$25,000 for the purchase of land	0,000
and \$35,000 for additional building and equipment	60,000=
WALTER DRAKE, Esq., for benefit of Chair of Physiology, an annual	00,000
donation of \$500 given 1891 to 1897.	3,500-
DR. ROBERT CRAIK FUND-	0,000
Mr. John McDougall, toward formation of above (1893-94). 1,000 )	
Jane F. Learmont, bequest do do (1894)3,000 [	
une 11 Dearmond, sequest 40 40 (1004)	4,000.
JOSEPH MORLEY DRAKE, CHAIR OF PHYSIOLOGY, endowed in 1898 by Wal-	
ter Drake, Esq, with the sum of	10,000
to state and the same of an and an and a state and a state and a	10,000

# 4. MEDALS AND SCHOLARSHIPS.

In 1865 the "Holmes Gold Medal" was founded by the Faculty of Medicine as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine, to be given to the best student in the graduatiug class in Medicine, who should undergo a special examination in all the branches whether Primary or Final.
In 1878 the "Sutherland Gold Medal" was founded by Mrs. Sutherland of Montreal, in memory of her late husband, Prof. William Sutherland, M.D., tor competition in the classes of Theoretical and Practical Chemistry in the Faculty of Medicine, together with creditable standing in the Primary Examinations.
THE DAVID MORRICE SCHOLARSHIP—in the subject of Institutes of Medicine, in the Faculty of Medicine—founded in 1881—value \$100. (Terminated in 1883.)

# 5. LIBRARY, MUSEUM AND APPARATUS.

For the fittings of the Library and Museum of the Faculty of Medicine, 1872.

G. W. Campbell, A.M., M.D\$1200	Forward\$2,000
W. E. Scott, M.D 200	Robert Craik, M.D 200
Wm. Wright, M.D 200	Geo. E. Fenwick, M.D 200
Robert P. Howard, M.D 200	Joseph M. Drake, M.D 200
Duncan C. MacCallum, M.D 200	George Ross, M.A., M.D 50
Forward \$2,000	Total \$2,650
The Professors and Lecturers in the C	Donation to Apparatus - Museum

l'rofes Summer Sessions of the Faculty of Medicine.....

Library.	etc.,	of the	M	edical	0.005
Faculty, \$1,023.	1887,	\$1,18	2;	1888,	\$2,205-

For Physiological Laboratory of Faculty of Medicine, 1879.

Dr. MacCallum	100 100 100 100 100	Forward Dr. Ross Dr. Roddick Dr. Buller Dr. Gardner Dr. Osler.	50 <sup>-</sup> 50 <sup>-</sup> 50 50 <sup>-</sup>
Forward		Total	\$950-

\$48,906

.)

١.

•

.

)

..

..

..

).

### Cameron Obstetrical Collections,

### 

### 6. MISCELLANEOUS.

Ab

Ar Bet

Ca Cr Da

Gi Ha

Ha Ha

Hu Ki

Kra

Lig

Anonymous Donor toward Expenses of Pathology for Session 1892-93 .......\$ 500

# VI. ENDOWMENTS AND SUBSCRIPTIONS FOR THE FACULTY OF LAW

### 1. ENDOWED CHAIRS, ETC.

THE GALE CHAIR, in the Faculty of Law, endowed in 1884 by the late Mrs. Andrew Stuart (*née* Agnes Logan Gale) of Montreal. in memory of her father, the late Hon. Mr. Justice Gale.—\$25,000

THE WILLIAM C. MCDONALD FACULTY OF LAW ENDOWMENT, founded by Wm. C. McDonald, Esq., in 1890-\$150,000. Supplemented in 1897 by \$50,000. Total \$200,000.

W. C. McDONALD, Eso., remodelling part of East Wing in 1895 for Class Rooms, Lecture Rooms, etc., for Law Faculty.

### 2. MEDAL.

In 1865 the "Elizabeth Torrance Gold Medal" was founded and endowed by John Torrance, Esq., of St. Antoine Hall, Montreal, in memory of the late Mrs. John Torrance, for the best student in the graduating class in Law, and more especially for the highest proficiency in Roman Law.

### VII. GRADUATES' FUNDS.

### 1. THE FUND FOR ENDOWMENT OF THE LIBRARY.

The Graduates' Society of the University, in 1876, passed the following Resolution :--

In terms thereof subscriptions have been paid in to the Graduates's Society, amounting in all to \$3,120; the interest on which is annually expended in the purchase of books for the several libraries under the direction of a special committee appointed for that purpose.

### 2. THE DAWSON FELLOWSHIP FOUNDATION.

The Graduates' Society of the University, in 1880, and in commemoration of the completion by Dr. Dawson of his twenty-fifth year as Principal, resolved to raise with the assistance of their friends, a fund towards the Endowment of the Fellowship, under the above name. Details of the scheme can be had from the Treasurer, Francis Topp, B.A.,

Details of the scheme can be had from the Treasurer, Francis Topp, B.A., B.C.L. The following subscriptions have been announced to date, May 1st, 1897 They are payable in one sum, in instalments, without interest or with interest till payment of capital, as subscribers have elected.

# Alphabetically arranged.

60 20 50

100

100 100 50

400 50 100

100 100

377

-	
	Abbett, H., B.C.L\$
	Archibald, H., B.A.Sc
	Bethune, M. B., M.A., B.C.L
	Carter, C. B., B.C.L
	Cruickshank, W. G., B.C.L
	Dawson, W. B., M.A., Ma.E
	Dougall, J. R., M.A
	Gibb, U., B.A
	Hall, Rev. Wm, M.A
	Hall, J. S., jun., B.A., B.C.L
	Harrington, B. J., B.A., Ph.D,
	Hutchinson, M., B.C.L
	Kirby, J., LL.D., D.C.L
	Krans, Rev. E. H., M.A., LL.D
	Leet, S. P., BC.L
	Lighthall, W. D., M.A., B.C.L

3

>

Forward	\$1,730
Lyman, H. H., M.A	100
Lyman, A. C., M.A., B.C.L	50
McCormick, D., B.C.L	100
McGibbon, R. D., B.A., B.C L	100
McGoun, A., jun. M.A., B.C.L.	. 50
McLennan, J. S., B.A	. 100
Ramsay, R. A., M.A., B.C.L	. 50
Spencer, J. W., B.A.Sc., Ph D	. 50
Stephen, C. H, B.C.L	. 100
Stewart, D. A., B.A.Sc	. 20
Stewart, J., M.D	. 60
Tait, M. M., B.C.L	. 100
Taylor, A. D., B.A., B.C.L	. 100
Trenholme, N. W., M.A., D.C.L	. 400

Total to date ..... \$3,110

1

Forward ......\$1,730

# \$10,000

...\$ 500

iE

te Mrs. father,

Vm. C. Total

Rooms,

by John te Mrs. w, and

g Reso-

a fund avested ciety in s to be Profes-

in the

n of the to raise he Fel-

B.A., st, 1897 rest till