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# Annual Calendar

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# Annual Calendar

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# The McGill University College

of British Columbia

Founded in 1906 by the Royal Institution for the Advancement of Learning of British Columbia, under authority of an Act of the Legislature

Session 1914-15

# The Royal Institution for the Advancement of Learning of British Columbia

# GOVERNORS OF THE McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA

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WILLIAM PETERSON, M.A., LL.D., C.M.G., Principal McGill University.

Hon. H. E. Young, B.A., M.D., LL.D., Minister of Education.

ALEXANDER ROBINSON, Esq., B.A., LL.D., Superintendent of Education.

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W. B. McKechnie, Esq., M.D.

G. E. Robinson, Esq., B.A., Acting Principal. /

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196 L. F. ROBERTSON, M. A. (McGill), Professor of Latin. WHENRI CHODAT, M. A. (McGill), M. A. (Har.), Professor of Modern Languages. 190 WH. K. DUTCHER, M. Sc. (McGill), A. M. Can. S. C. E., Professor of Civil ₩ ð > VJ. G. DAVIDSON, B. A. (Tor.), Ph. D. (Cal.), Professor of Physics. W. MUNN, M.A. (McGill), M. Sc. (MeGill), A. M. Can. S. C. E., Professor of Mechanical Engineering (on leave of absence). ✓R. E. MACNAGHTEN. M. A. (Cantab), Professor of Greek. G. R. KENDALL, B. Sc. (McGill), Lecturer in Chemistry. 1986 ✓JAS. HENDERSON, M. A. (Glas.), Professor of Philosophy. VISABEL MacINNES, M. A. (Queen's), Lecturer in Modern Languages. 12 / 9 E. E. JORDAN, M. A. (Dal.), Lecturer in Mathematics. 4 Y Q VH. T. LOGAN, B. A. (McGill), B. A. (Oxon), Lecturer in Classics.

1906 VG. E. ROBINSON, B. A. (Dal.), Acting Principal and Dean, Professor of

1906 VJ. K. HENRY, B. A. (Dal.), Professor of English.

1 13 I. KILLAM, B. A. (Mt. Allison), B. Sc. (McGill), Professor of Mechanical Engineering.

E. A. STONE, Ma., E. (McGill), M. Inst. C. E., Lecturer in Civil

4 /2 /5 C. W. WRIGHT, Assistant in Mathematics and Physics. V S. NORTHROP, Instructor in Carpentry and Woodturning. H. TAYLOR, Instructor in Machine Shop Work.

R. EDWARDS, Instructor in Smith Work.
E. G. Marhison, B. Sc., Lellins Description Geometry
VICTORIA

√S. J. WILLIS, B. A. (McGill), Dean and Professor of Classics. ► E. H. RUSSELL, B. A. (Queen's), Professor of Mathematics.

► JEANETTE A. CANN, B. L. (Dal.), Lecturer in English.

VALICE O. E. HENRY, M. A. (McGill), Lecturer in Modern Languages. FERCY ELLIOTT, M. Sc. (McGill), Lecurer in Physics and Chemisry.

G. R. KENDALL, B. Sc., Regisrar.

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# ACADEMIC YEAR, 1914-15

1914

Thursday August 27th Monday August 31st Friday September 19th Tuesday September 22nd Monday September 28th Tuesday September 29th Friday October 16th Friday November 6th Friday November 20th Friday December 11th Monday December 14th Saturday December 19th Tuesday December 22nd

1915

Monday January 4th Tuesday January 19th Friday Jan. 22nd Friday February 19th Friday March 5th Friday March 19th Friday April 2nd Wednesday April 14th Monday April 19th Saturday May 1st

Supplemental Examinations in Applied Science begin

Summer School in Surveying opens.

Supplemental Examinations in Arts begin.

Matriculation Examinations begin.

Registration-meeting of the Faculty.

Lectures begin.

Meeting of the Faculty.

Meeting of the Faculty.

Meeting of the Faculty.

Meeting of the Faculty; last day of lectures for term in Arts

Examinations begin.

Christmas Vacation begins.

Meeting of the Faculty.

Second Term opens.

First Term Final

Examinations in Applied Science.

Meeting of the Faculty.

Meeting of the Faculty.

Meeting of the Faculty.

Meeting of the Faculty.

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Last Day of Lectufes, Meeting of the Faculty.

Sessional Examinations begin.

Meeting of the Faculty.

# MATRICULATION EXAMINATION TIME TABLE

SEPTEMBER, 1914.

TUESDAY, SEPTEMBER 22ND.

Morning 9.-11.—English Literature.

11-12.30.—Botany and Chemistry.

Afternoon 2.30-4.30—English Composition.

WEDNESDAY, SEPTEMBER 23RD.

Morning 9-11.—Latin Authors; Arithmetic.

11.-12.30-Trigonometry.

Afternoon 2.30-4.30-Latin Composition and Sight; English Grammar.

THURSDAY, SEPTEMBER 24TH.

Morning 9-11.—Algebra, Part I.

11-1.-French Grammar.

German Grammar.

Afternoon 2.30-4.30.—French Translation.

German Translation.

FRIDAY, SEPTEMBER 25TH.

Morning 9-11.—Geometry, Part I.

11-12.30.—Physics; Physiography.

Afternoon 2.30-4.30.—History.

SATURDAY, SEPTEMBER 26TH.

Morning 9-11.—Algebra, Part II: Greek Authors.

Afternoon 2.30-4.30-Geometry, Part II: Greek Composition and Sight.

Special arrangements may be made for the examination of candidates who are prevented by severe illness or domestic affliction from presenting themselves on the dates fixed above.

# EXAMINATION TIME TABLES

Faculty of Arts, Supplemental Examinations, September, 1914.

DATE	Hour	Supp. to First Year Sessional	Supp. to Second Year Sessional	Supp. to Third Year Sessional	
Friday, 18	9	Trigonometry	English Litera-	English Litera-	
	2	Algebra	English Composition	English Composition	
Monday, 21	9	Latin Books	Latin Books	Latin Books	
	2	Latin Composi- tion, Sight Translation and History	Latin Compo- sition, Sight Translation, History and Literature	Latin Compo- sition, Sight Translation English Litera- ture	
Tuesday, 22	9	French	French	French	
	2	French	French		
Wednesday, 23	9	English Litera-	Chemistry	Mathematics	
	2	English Com- position and History	Psychology		
Thursday, 24	9	Geometry	Greek Books Logic German		
	2	Physics	Greek Composition, Sight Translation German		
Friday, 25	9	Greek Books German	Conics and Solid Geo- metry		
	2	Greek Com- position, Sight Translation and History German	Algebra		

# **EXAMINATION TIME TABLES**

Faculty of Arts
Christmas Examinations, 1914

Morning examinations commence at 9; afternoon examinations at 2.

Day and Date	First Year	Second Year	Third Year.
Monday, Dec, 14th, a.m.	Geometry	English	
p. m.	Latin	Logic >	History; Mathematics; Physics.
Tuesday, Dec. 15th, a.m.	French		Latin; English.
p. m.	English	Latin	Philosophy (Ethics); French.
Wed'y, Dec. 16th, a.m.	Physics	Mathematics Chemistry	
p. m.	Greek	French	Greek; Psychology;
Thurs'y, Dec. 17th, a.m.	German	Greek	Philosophy (Theory of); English
p. m.	History	German	
Friday, Dec. 18th, a.m.	Trigonometry	History Psychology	

# **EXAMINATION TIME TABLES**

Faculty of Arts, Sessional Examinations, 1915

Morning examinations commence at 9; afternoon examinations at 2.

Day and Date	First Year	Second Year	Third Year.  Am. Eq. Arama II.
Monday, April 19th, A. M	Algeliat	English Lit	English Composition
" P. M	History	English Conf.	Eng. Prose
Tuesday, April 20th, A. M	Latin	Logic	Mathematics, Physics
" P. M	Latin	Psychology	Mathematics
Wednes'y, April 21st, A. M.	French	chen what &	Latin, English
" P. M	French		Latin, English
Thursday, April 22nd, A.M.	Physics English	Latin	Philosophy (Ethics)
" " P. M	English Grafe	Latin	Philosophy (Ethics)
Friday, April 23rd, A. M	Physics lit	Algebra Chemistry	Ey. Drama
" " P. M	Trigonometry		
Monday, April 26th, A. M	Greek Beg. Par.	Chemistry French	Greek Frush hil
" P. M	Greek By Ls	French	Greek Frank lit
Fuesday, April 27th, A. M	German By 4k	Greek	
" P. M	German 9K	Greek	
Wednes'y, April 28th, A. M.		Coman	
" P. M		Gaeman	

# THE McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA

#### HISTORICAL SKETCH

In 1894, at the instance of friends of higher education in the Province, who desired such relations between local high schools and universities in other parts of the Empire as would tend to the inception and promotion of university work in British Columbia, legislation was passed which empowered the affiliation of high schools to recognized universities; and this was supplemented in 1896 by an act providing for the incorporation of high schools as colleges in accordance with the charters and constitutions of such universities. Under these enactments Vancouver High School became Vancouver College, and was admitted to affiliation for the First Year in Arts by the Corporation of McGill University, which had in the meantime secured such extension of its charter powers as made possible the admission of extra-Provincial colleges to the relation of affiliation. Work was begun under this relation in 1899, and by 1902 the work had grown so, and was of such a character that an extension of affiliation was granted, to cover the second year in Arts and the University Intermediate Examination. This year Victoria College, too, applied for and obtained affiliation covering the First Year Arts. Later the need of university connection more intimate still and essential than that of affiliation and also of extension of the scope of work came to be felt and urged, and the result was the passing in 1906 of local legislation (1) enacting that "the Governors, Principal, and Fellows of McGill College and Unversity may exercise and enjoy in the Province of British Columbia all the powers, rights, privileges, and functions conferred upon them by the charter granted to them by His late Majesty, King George IV., in the second year of his reign, and amended by Her late Majesty, Queen Victoria, in the sixteenth year of her reign"; and (2) authorizing the incorporation of a body politic under the name of "The Royal Institution for the Advancement of Learning of British Columbia," and empowering this body to enter into an agreement with any

Board of School Trustees or any City Council or any other body in charge of any branch of public education in the Province of British Columbia whereby the Royal Institution shall "undertake the conduct or administration of any part of the higher education work now carried on by such bodies," and also to "establish at such place in British Columbia as McGill University may designate a College for the higher education of men and women, such College, in respect of courses of study and examinations, to be deemed a College of McGill University, and the instruction given to its students to be of the same standard as that given in like subjects at McGill University at Montreal."

In pursuance of the objects of its foundation, the Royal Institution established in 1906 at Vancouver the McGill University College of British Columbia (by agreement with the Board of School Trustees) taking over the Arts work previously done by the Vancouver College, increasing the number of the options allowed, and adding two years of Applied Science. In 1908 the course was further extended to include the Third Year in Arts.

In 1907 the act was amended so as to allow of the establishment of Colleges of the Royal Institution in other cities in the Province, and in the following year the College at Victoria, hitherto directly affiliated to McGill, came under the control of the Royal Institution as a part of the McGill University College of British Columbia, with courses in the first two years in Arts.

In May, 1909, the Board of Governors of the McGill University College placed on record the following minute:

"Resolved—That should Vancouver or the immediate vicinity of Vancouver be chosen as the site of the Provincial University, this Board is prepared to hand over the work now being carried on by the Royal Institution to the Board of the Provincial University."

The site of the University has been fixed at Point Grey, and it was supposed at one time that its doors would be opened in September, 1913. But in April of that year its Board of Governors requested the Royal Institution to continue its work for the years 1913-1914 and 1914-15. In view of the above and the preparations being made by the Provincial Board for beginning work in September, 1915, it is probable that the present session will bring to a close the work of the McGill University College of British Columbia. The Board of Gov-

ernors of the Provincial University, however, agrees to give to students of this College the same standing in the University as that which they may hold in McGill University when the work is taken over.

# CONSTITUTION OF THE UNIVERSITY COLLEGE

Under the Act of the Legislature of the Province of British Columbia, the Royal Institution for the Advancement of Learning of British Columbia is constituted a body corporate, with all the usual rights and privileges of corporate bodies.

The members of the Royal Institution are the Governors of the College, and, as such, control the finances, make statutes and by-laws, appoint professors, and perform all other administrative duties.

The President of the Royal Institution is ex-officio Chancellor of the College.

The Principal is the Academic head and Chief Administrative Officer. He is appointed by the Board of Governors, of which body he is a member, ex-officio.

The statutes and regulations have been framed on the most liberal principles, with a view to providing, as far as possible, for all classes of persons, opportunity for the attainment of mental culture.

The College is undenominational in character.

# COURSES OF STUDY

The College offers instruction in the first, second and third years of the Arts Course, and in the first and second years of the Course in Applied Science of McGill University. The standard of work is that of McGill University, all the examinations being conducted by the Examining Board of that institution, which includes all the members of the local staff. Candidates passing the examinations at the end of any year in either Arts or Applied Science are admitted to the next year of McGill University without further examination.

The Courses in Arts are open to men and women on equal footing.

# THE SESSION

The University Year or Session is divided into two terms, the first extending to the Christmas vacation, and the second from the expiry of the Christmas vacation to the end of the Sessional Examinations in April.

The Session of 1914-1915 will begin on Monday, September 28th.

Two matriculation examinations will be held in 1914, the first commencing on Friday, June 12th, and the second on Tuesday, September 22nd.

# BOARD AND RESIDENCE

Good board and lodging can be obtained in the vicinity of the College buildings at a cost of from \$25.00 per month upwards; or, separately, board at \$16.00 to \$21.00 per month; rooms at \$9.00 to \$12.00 per month.

A list of suitable boarding and lodging houses, the sanitary conditions of which are required to be properly certified, may be obtained upon application to the Secretary of the Young Men's Christian Association, 590 Cambie Street.

# MATRICULATION

#### REGULATIONS

1. Matriculation Examinations, which are those of McGill University, Montreal, are held only in June and September.

All inquiries relating to the examinations should be addressed to the Registrar.

2. Every candidate for examination is required to fill up an application form and return the same with the necessary fee (for which see page 18) one month before the examination begins. Blank forms may be obtained from the Registrar.

No applications for examination in June will be received after May 12th in Vancouver or Victoria, and May 21st in Montreal.

- 3. Examinations will be held in June at the following centres in British Columbia:—Yale, Summerland, Vancouver, and Victoria; but in September only at Vancouver and Victoria. Candidates who are not within easy reach of any of the above centres are advised to prepare for entrance by taking an examination recognized by the University, as shown on pages 17 and 18. In centres where not more than four candidates are writing the fee for each will be determined by the Registrar, Montreal.
- 4. The matriculation examination may be taken in two parts, but in order to be valid for entrance it must be completed within two years from the date of the first attempt. Credit will not be given for less than four papers passed at one time except (a) in the case of candidates who have passed in that number at the June examination and who wish to take additional papers in the following September, and also (b) in the case of those who are not required to take as many as four papers to complete the examination; nor will credit begiven for less than four papers on certificates which may be presented for exemption from the matriculation examination, and no certificate will be accepted which has been obtained under easier conditions than those which are imposed on candidates who are attempting to qualify for entrance by taking the regular University examination.
- 5. Candidates will not be considered as having passed in any subject unless they obtain at least 50 per cent. of the maximum marks in that subject, and in subjects in which two papers are set, at least 40 per cent. on the lowest paper.

This regulation applies also in the case of candidates who present certificates.

6. Candidates for admission to the Faculties of Arts, Applied Science, Law, Agriculture and the Department of Music who have failed to complete the matriculation requirements will be allowed to enter the first year as conditioned undergraduates, provided (a) that they have not failed in more than two papers (which in the Faculty of Applied Science cannot both be in the mathematical section) and (b) that they have obtained at least 25% in the subjects in which they have failed and 50% of the aggregate.

This regulation applies also to candidates who seek to satisfy the matriculation requirements by means of certificates granted by other recognized examining bodies.

In order to be admitted to the Faculty of Medicine, a candidate must pass in every subject required.

Students conditioned in a language must attend a special tutorial class during their first session, for which a fee of \$10.00 is exigible. Any student so conditioned who fails to attend this class with regularity will not be allowed to present himself for examination.

- 7. Matriculation certificates will be issued to candidates who have passed the entrance examination conducted by the University, but not to those who have qualified by means of certificates, except when the greater part of the requirements have been satisfied by passing the University examination.
- 8. The certificates and diplomas named below will, if submitted to the Registrar, Montreal, be accepted pro tanto in lieu of the matriculation examination, i.e., in so far as the subjects and standard of the examination taken to obtain them are, to the satisfatcion of the Matriculation Board, equivalent to those required for the matriculation examination of this University. Candidates offering certificates which are not a full equivalent will be required to pass the matriculation examination in such of the necessary subjects as are not covered thereby.

Intending students who wish to enter by certificates should under no circumstances come to the University without having first obtained from the Registrar a statement of the value of the certificates they hold, as many of these may lack one or more essential subjects, or the work done in a subject may not

be adequate, or again, the percentage gained may not be sufficiently high (See regulation 5.) Moreover, it must be remembered that a certificate may admit to one Faculty and not to another. When a diploma or certificate does not show the marks obtained in the several subjects of the examination, it must be accompanied by an official statement containing this information.

#### Province of Quebec-

The University School leaving certificate.

The Model School diploma, under certain conditions.

#### Province of Ontario-

Certificates of admission to the Normal School and to the Faculty of Education.

Junior and Senior Matriculation certificates.

#### Province of New Brunswick-

First Class, Superior and Grammar School licenses. Grade XI and XII certificates.

#### Province of Nova Scotia-

The leaving certificates of Grades XI and XII.

#### Province of Prince Edward Island-

First Class Teachers' licenses.

Second and Third Year certificates of Prince of Wales College.

#### Province of British Columbia-

Intermediate and Senior Grade certificates.

#### Province of Manitoba-

First and Second Class Teachers' certificates.

# Provinces of Alberta and Saskatchewan-

The Departmental examination certificates for Standards VII. and VIII.

#### Newfoundland-

Associate Grade certificates.

#### United States-

Certificates granted by the College Entrance Examination Boards, and by the New York State Board of Regents.

#### Great Britain-

The holder of a Higher Certificate or a School Certificate of the Oxford and Cambridge Schools Examination Board, of the Senior Certificate of the Oxford or Cambridge Board of Examiners, or of a First Class Certificate of the College of Preceptors or of a Higher Examination Certificate of the Scotch and Welsh Education Departments is entitled to exemtion from the matricultation pro tanto, if the canditidate has at one and the same examination passed in certain specified subjects.

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

# II.—MATRICULATION EXAMINATION FEES

# JUNIOR MATRICULATION

For the first examination*\$	5.00
(For examination at a local centre where not more than four candidates are writing the fee will be	
determined by the Registrar, McGill University, Montreal).	
For a subsequent examination in one or two subjects.	2.00
For a subsequent examination in three or more subjects For examination of certificates, in respect of which	3.00
candidates are exempted from the whole of the matriculation examination	1.00

#### SENIOR MATRICULATION

For the first examination	 \$10.00
For a subsequent examination, per subject	 2.00

\*In the case of candidates who qualify on certificates, or by other examinations in all but three subjects or less, the fee will be \$3.00.

Matriculation examination fees must be sent to the University Registrar at the time of application for the examination. No application will be accepted unless accompanied by the regular fee.

Certificates will be issued to successful candidates without additional fee.

# III.—SUBJECTS OF EXAMINATION

#### FACULTY OF ARTS

Junion Matriculation (Admission to First Year)
(For candidates intending to take the B. A. Course)

- 1. English (two papers).
- 2. History (one paper).

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- 3. Latin or Greek (two papers).
  - One of the following: (two papers in each).
     Greek or Latin (the one not already chosen).
     French, German.
- 5. Algebra, Part I., and Arithmetic (one paper).
  - 6. Geometry, Part I (one paper).
  - 7. One of the following:

Physiography\*, Botany, Chemistry, Physics (one paper);
a Language not already chosen (two papers).

For candidates intending to take the B. Sc. course in Arts.

- 1. English (two papers).
  - 2. History (one paper).
  - 3. Algebra, Part I, and Arithmatic (one paper).
    - 4. Geometry, Part I (one paper).
  - 5. French (two papers).
    - 6. Latin or German (two papers) or Physics (one paper).
    - 7. One of the following:

Physiography\*, Botany, Chemistry, Physics—if not already lochosen—(one paper), Latin (if not already chasen), Greek (two papers).

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

# SENIOR MATRICULATION

(Admission to Second Year)

For Candidates taking the B. A. Course.

- 1. Latin or Greek.
- 2. English
- 3. History.
- 4. Latin (if not already taken), or Greek (if not already taken, or French or German.
- 5. Mathematics (Algebra, Geometry and Trigonometry).
- 6. Physics.

The requirements in each subject are stated on pp. 21 to 36.

\*After 1915 this subject will not be accepted for matriculation.

#### FACULTY OF APPLIED SCIENCE

(For all courses leading to the Degree of B. Sc. in the different branches of Engineering).

- 1. English (two papers).
- 2. History (one paper).
- 3. One of the following: French, German, Latin, Greek (two papers).
- 4. Algebra, Part I, and Arithmetic, and Algebra, Part II (two papers).
- 5. Geometry, Part I and II (two papers).
- 6. Trigonometry, (one paper).
- 7. One of the following:
  Physiography\*, Botany, Chemistry, Physics (one paper);
  a Language not already chosen (two papers).
  (For the course leading to the Degree of B. Arch).
- 1. English (two papers).
- 2. History (one paper).
- 3. French (two papers).
- 4. One of the following: Greek, Latin, German (two papers), Chemistry, Physics, (one paper).
- Algebra, Part I, and Arthmetic and Algebra Part II (two papers).
- 6. Geometry, Parts I and II (two papers).
- 7. Trigonometry.
- 8. Freehand and Geometrical Drawing.

In the case of No. 8, applicants may send specimens of their work to the Head of the Department or take an examination at the time of the regular matriculation examination in September. No examinations taken elsewhere are accepted as equivalent for this subject.

#### FACULTY OF MEDICINE

- 1. English (two papers).
- 2. History (one paper).
- 3. Latin (two papers).
- 4. Algebra, Part I and Arithmetic (one paper).
- 5. Geometry, Part I (one paper).
- 6. Chemistry (one paper).
- 7. Physics (one paper).
- 8. One of the following: Greek, French, German (two papers).

In addition to the certificates mentioned on pages 00 and 00, the following are accepted *pro tanto* in lieu of the matriculation examination in this Faculty:

<sup>\*</sup>After 1915 this subject will not be accepted for matriculation.

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

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

In the case of candidates from the United States, a certificate of having passed a State or University examination.

No candidate will be admitted to the Faculty of Medicine without having satisfied all the matriculation examination requirements.

Those who intend to practice medicine in any of the Provinces of Canada will obtain information regarding registration and admission to study by corresponding with the Registrars of the several Provincial Medical Councils.

#### DEPARTMENT OF MUSIC

(For the course leading to the Degree of Bachelor of Music.)

1. English Grammar (one paper).

- 2. History and Geography (one paper).
- 3. Arithmetic (one paper).

4. English (two papers).

5. French or German or Italian (two papers).

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

Optional:—Algebra, Part I. and Geometry, Part I. A pass in either, or both, of these subjects will help to make up for deficiency in any others.

# IV.—REQUIREMENTS IN EACH SUBJECT

FOR JUNIOR MATRICULATION

# English Grammar-

Main facts in connection with the history of the language; etymology and syntax. A good knowledge of parsing and analysis is essential. West's English Grammar for Beginners is recommended as a text-book.

One examination paper of two hours.

# History and Historical Geography-

For 1915, candidates will be required to show a somewhat intimate acquaintance with the history of England, from 1485 to the present time. While any text-book written for the upper

forms of schools may be used in preparation for the examination, Gardiner's Outline of English History (Longman's) is recommended.

For 1916 and thereafter. Introduction to World History by Keatinge and Frazer.

The geography required will be that relating to the history prescribed.

One examination paper of two hours.

All the ordinary rufes, including square-root, and a knowledge of the metric system.

One examination paper of two hours.

English-

A. Composition and Reading.—The principles of English composition, as in Syke's Elementary Composition, or English Composition by Latham and MacMillan (educational Book Co.), with a short essay on a general subject and two or three others based on the works prescribed for reading, as follows:—(a) Prose (two books to be selected)—Washington Irving, The Sketch Book (ed. Litchfield, Ginn & Co.); Scott Ivanhoe; George Eliot, Silas Marner (ed. Witham, Ginn & Co.); Addison and Steele, Sir Roger De Coverley Papers (ed. Litchfield, Ginn & Co.) (b) Poetry (one to be selected)—Shakspere, As You Like It (Macmillan or Ginn); Tennyson, Gareth and Lynette (Macmillan or Ginn); Longfellow, The Courtship of Miles Standish. The editions are merely recommended, not required.

The books selected should be read carefully, but the student's attention should not be so fixed upon details that he fails to appreciate the main purpose and beauty of the work.

Frequent practice in composition is essential.

B. Literature (for critical study.)—Any two of the following: Shakspere, Juluis Cæsar; Nineteenth Century Prose (ed. Cunliffe), pp. 127 to the end, with notes (Copp, Clark Co.); Poems of the Romantic Revival (Copp, Clark Co.), pages 83 to the end, with notes.

Candidates will be expected to have memorized some of the finest passages.

Two examination papers of two hours each.

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

Spelling will be tested by the candidate's papers in English. Examiners in other subjects will also take note of mis-spelled words and will report flagrant cases to the Board.

Greek-For 1915-

Texts.—Philpotts and Jerram, Easy selections from Xenophon, Chaps. 3, 4, 5.

For 1916 and 1917-

Phillpotts and Jerram, Easy selections from Xenophon, Chaps. 3, 4, 5; Homer, Iliad, lines 1 to 350.

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

Translation at Sight from Greek into English.

Two papers of two hours each will be set; one on the prescribed texts, the other on translation at sight, accidence and syntax.

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

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

Latin-For 1915, 1916 and 1917-

Texts.—(a) Cæsar, De Bello Gallico, Books II and III; and (b) Either Ovid, Stories from the Metamorphoses (as in Gleason's "A Term of Ovid," American Book Company), lines 1 to 670, or Virgil, Aeneid II (Wainwright, Bell's Illustrated Classics); verses 1 to 505.

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

Translation at Sight from Latin into English.

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

Two papers of two hours each will be set; one on composition and translation at sight, the other on prescribed texts and grammar.

Note.—The "Roman" method of pronouncing Latin is recommended.

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

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

#### French-

Grammar.—A thorough knowledge of French accidence and of those points of syntax which are of more frequent occurrence in an ordinary easy style.

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

Translation at Sight into French of detached English sentences and an easy English passage. Material for such translation is selected with a view to testing the candidate's general knowledge of French grammar.

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

A list of French texts suitable for class reading can be obtained by applying to the Registrar, Montreal.

Two papers will be set, of two hours each, one on grammar, including translation of short English sentences into French and one on translation of continuous passages from French into English and from English into French.

#### German-

Grammar.—A thorough knowledge of German accidence and syntax as in Van der Smissen, or any other German grammar of equally good standing.

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

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

Texts.—(Translation and grammatical study):—

For 1915 and 1916.—Volkmann, Kleine Geschichten (Heath & Co.); Sille Wasser, (ed. Bernhardt, Heath & Co.)

It is recommended that candidates should read the prescribed texts in the above order, beginning in Volkmann's Kleine Geschichten with Himmelsschlüssel and Siebenmeilenstiefel.

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

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

Two papers will be set, of two hours each, one on grammar, including translation of short English sentences into German and one on translation of continuous passages from German into English and from English into German.

#### Algebra, Part I-

Elementary rules, involution, evolution, fractions, indices, surds, simple and quadratic equations of one or more unknown quantities; as in Hall and Knight's Elementary Algebra to the end of surds (omitting portions marked with an asterisk), or as in similar text-books.

One examination paper of two hours.

# Algebra, Part II-

The three progressions, ratio, proportion, variation, permutations and combinations, binomial theorem, logarithms, theory of quadratic equations, as in the remainder of Hall and Knight's Elementary Algebra (omitting Chaps. 40 to 44 inclusive), or as in similar text-books.

One examination paper of an hour and three-quarters.

# Geometry, Part I-

The paper shall contain questions on practical and on theoretical geometry. Every candidate shall be expected to answer questions in both branches of the subject.

The questions on practical geometry shall be set on the constructions contained in the annexed Schedule A, together with easy extensions of them. In cases where the validity of a construction is not obvious, the reasoning by which it is justified may be required. Every candidate shall provide himself with a ruler graduated in inches and tenths of an inch, and in centimeters and millimeters, a set square, a protractor, compasses and a hard pencil. All figures should be drawn accurately. Questions may be set in which the use of the set spuare or of the protractor is forbidden.

The questions on theoretical geometry shall consist of theorems contained in the annexed Schedule B, together with questions upon these theorems, easy deductions from them, and arithmetical

illustrations. Any proof of a proposition shall be accepted which appears to the examiners to form part of a systematic treatment of the subject; the order in which the theorems are stated in Schedule B is not imposed as the sequence of their treatment.

In the proof of theorems and deductions from them, the use of hypothetical constructions shall be permitted. Proofs which are only applicable to commensurable magnitudes shall be accepted.

#### Schedule A.

Bisection of angles and of straight lines. Construction of perpendicular to straight lines. Construction of an angle equal to a given angle. Construction of parallels to a given straight line.

Simple cases of the construction from sufficient data of triangles and quadrilaterals.

Division of straight lines into a given number of equal parts or into parts in any given proportions.

Construction of a triangle equal in area to a given polygon.

Construction of tangents to a circle and of common tangents to two circles.

Simple cases of the construction of circles from sufficient data.

Construction of a fourth proportional to three given straight lines and a mean proportional to two given straight lines.

Construction of regular figures of 3, 4, 6 or 8 sides in or about a given circle.

Construction of a square equal in area to a given polygon.

#### Schedule B.

If a straight line stands on another straight line, the sum of the two angles so formed is equal to two right angles; and the converse.

If two straight lines intersect, the vertically opposite angles are equal.

When a straight line cuts two other straight lines, if (i) a pair of alternate angles are equal or (ii) a pair of corresponding angles are equal, or (iii) a pair of interior angles on the same side of the cutting line are together equal to two right angles, then the two straight lines are parallel; and the converse.

Straight lines which are parallel to the same straight line are parallel to one another.

The sum of the angles of a triangle is equal to two right angles.

If the sides of a convex polygon are produced in order, the sum of the angles so formed is equal to four right angles.

If two triangles have two sides of the one equal to two sides of the other, each to each, and also the angles contained by those sides equal, the triangles are congruent.

If two triangles have two angles of the one equal to two angles of the other, each to each, and also one side of the one equal to the corresponding side of the other, the triangles are congruent.

If two sides of a triangle are equal, the angles opposite to these sides are equal; and the converse.

If two triangles have the three sides of the one equal to the three sides of the other, each to each, the triangles are congruent.

If two right-angled triangles have their hypotenuses equal, and one side of the one equal to one side of the other, the triangles are congruent.

If two sides of a triangle are unequal, the greater side has the greater angle opposite to it; and the converse.

Of all the straight lines that can be drawn to a given straight line from a given point outside it, the perpendicular is the shortest.

The opposite sides and angles of a parallelogram are equal, each diagonal bisects the parallelogram, and the diagonals bisect one another.

If there are three or more parallel straight lines, and the intercepts made by them on any straight line that cuts them are equal, then the corresponding intercepts on any other straight line that cuts them are also equal.

Parallelograms on the same or equal bases and of the same attitude are equal in area.

Triangles on the same or equal bases and of the same altitude are equal in area.

Equal triangles on the same or equal bases are of the same altitude.

Illustrations and explanations of the geometrical theorems corresponding to the following algebrical identities:

$$k (a+b+c...) = ka+kb +kc+...$$

$$(a +b)^2 = a^2 + 2ab+b^2$$

$$(a -b)^2 = a^2 - 2ab+b^2$$

$$a^2-b^2 = (a+b) (a-b)$$

The square on a side of a triangle is greater than, equal to, or less than the sum of the squares on the other two sides, according as the angle contained by those sides is obtuse, right, or acute. The difference in the cases of inequality is twice the rectangle contained by one of the two sides and the projection on it of the other.

The locus of a point which is equidistant from two fixed points is the perpendicular bisector of the straight line joining the two fixed points.

The locus of a point which is equidistant from two intersecting straight lines consists of the pair of straight lines which bisect the angles between the two given lines.

A straight line, drawn from the centre of a circle to bisect a chord which is not a diameter, is at right angles to the chord; conversly, the perpendicular to a chord from the centre bisects the chord.

There is one circle, and one only, which passes through three given points not in a straight line.

In equal circles (or, in the same circle) (i) if two arcs subtend equal angles at the centres, they are equal; (ii) conversly, if two arcs are equal, they subtend equal angles at the centres.

In equal circles (or, in the same circle) (i) if two chords are equal, they cut off equal arcs; (ii) conversly, if two arcs are equal, the chords of the arcs are equal.

Equal chords of a circle are equidistant from the centre; and the converse.

The tangent at any point of a circle and the radius through the point are perpendicular to one another.

If two circles touch, the point of contact lies on the straight line through the centres.

The angle which an arc of a circle subtends at the centre is double that which it subtends at any point on the remaining part of the circumference.

Angles in the same segment of a circle are equal; and, if the line adjoining two points subtends equal angles at two other points on the same side of it, the four points lie on a circle.

The angle in a semicircle is a right angle; the angle in a segment greater than a semicircle is less than a right angle; and the angle in a segment less than a semicircle is greater than a right angle.

The opposite angles of any quadrilateral inscribed in a circle are supplementary; and the converse.

If a straight line touch a circle, and from the point of contact a chord be drawn, the angles which this chord makes with the tangent are equal to the angles in the alternate segments.

If two chords of a circle intersect either inside or outside the circle the rectangle contained by the parts of the one is equal to the rectangle contained by the parts of the other.

If a straight line is drawn parallel to one side of a triangle, the other two sides are divided proportionally; and the converse.

If two triangles are equiangular their corresponding sides are proportional; and the converse.

If two triangles have one angle of the one equal to one angle of the other and the sides about these equal angles proportional, the triangles are similar.

The internal bisector of an angle of a triangle divides the opposite side internally in the ratio of the sides containing the angle, and likewise the external bisector externally.

The ratio of the areas of similar triangles is equal to the ratio of the squares on corresponding sides.

Text-book recommended:—Godfrey and Siddons' Elementary Geometry (Pitt Press, Cambridge), or Hall and Stevens' School Geometry.

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

One examination paper of two hours.

#### Geometry, Part II-

#### Constructions

Two draw the inscribed, escribed, and circumscribing circles of a triangle.

To construct triangles under given conditions.

To divide a given line externally and internally in medial section.

To construct an isosceles triangle, such that each of the base angles is twice the vertical angle.

To describe a regular pentagon.

To construct a polygon similar to a given polygon, and such that their areas are in a given ratio.

To construct a figure equal in area to a given figure A, and similar to another figure B.

#### Theorems

If two sides of one triangle be equal respectively to two sides of another, that with the greater contained angle has the greater base; and conversely.

If a triangle is such that the square on one side is equal to the sum of the squares on the other two sides, the angle contained by these sides is a right angle.

The three medians of a triangle are concurrent.

Perpendiculars from the angles to the opposite sides of a triangle are concurrent.

The complements of parallelograms about the diagonal of any parallelogram are equal.

If the circumference of a circle be divided into n equal arcs:—

(1) The points of division are the vertices of a regular polygon of n sides inscribed in the circle:

(2) If tangents be drawn to the circle at these points, these tangents are the sides of a regular polygon of n sides circumscribed about the circle.

If OA.OB=OC<sup>2</sup>, OC is a tangent to the circle through ABC. If two triangles have an angle in each equal, and the sides

about two other angles proportional, the remaining angles are equal or supplemental.

The perpendicular from the right angle of a right-angled triangle on the hypotenuse divides the triangle into two triangles which are similar to the original triangle.

The sum of the rectangles contained by the opposite sides of a quadrilateral, about which a circle can be described, is equal to the rectangle contained by its diagonals.

The squares on two sides of a triangle are together equal to twice the square on half the third side and twice the square on the median to that side.

If from the vertical angle of a triangle a straight line be drawn perpendicular to the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the perpendicular and the diameter of the circle described about the triangle.

If the vertical angle of a triangle be bisected by a straight line which also cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base, together with the square on the straight line which bisects the angle.

The areas of two similar polygons are as the squares on corresponding sides.

In a right-angled triangle the rectilineal figure described on the hypotenuse is equal to the sum of the similar and similarly described figures on the other two sides.

If three lines be proportional, the first is to third as the figure on the first is to a similar figure on the second.

If the straight lines joining a point to the vertices of a given polygon are divided (all externally or all internally) in the same ratio, the points of division are the vertices of a similar polygon.

Two similar polygons may be so placed that the lines joining corresponding points are concurrent.

Triangles of equal altitude are as their bases.

In equal circles, angles, whether at the centres or circumferences, are proportional to the arcs on which they stand.

If P is any point on the circumscribing circle of a triangle, ABC, and PL, PM, PN are perpendicular to BC, CA, AB, respectively, LNM is a straight line.

A point P moves so that the ratio of its distances from two fixed points, Q and R, is constant; prove that the locus of P is a circle.

#### Areas

Area of a circle.

Area of a sector of a circle.

Area of a segment of a circle.

# Use of Squared Paper

Marking points.

Finding areas of rectilinear and curvilinear figures.

Examples of plotting loci: in particular, the ellipse, hyperbola, and parabola.

Examples of loci and envelopes.

# **Deductions and Applications**

Deductions from, and simple applications of the constructions and theorems given above.

Text-book:—Godfrey and Siddons' Elementary Geometry (Pitt Press, Cambridge), or Hall and Stevens' Schoool Geometry.

One examination paper of two hours.

An alternative paper will be set on the work prescribed for Senior matriculation Geometry in the Province of Ontario.

## Trigonometry-

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

One examination paper of an hour and a half.

# Physical , Geography-

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

One examination paper of an hour and a half.

After 1915 this subject will not be accepted for matriculation.

#### Botany-

Text-books recommended:—Bergen's and Davis's Principles of Botany, or Atkinson's Elementary Botany.

One examination paper of an hour and a half.

# Chemistry-

(1) For admission to the Faculties of Arts, Law and Applied Science.

Elementary inorganic chemistry, comprising the preparation and properties of the chief non-metallic elements and their more important compounds, the laws of chemical action, combining weight, etc. The ground is simply and effectively covered by Remsen's "Elements of Chemistry," pp. 1 to 165 and 218 to 243. (Macmillan's Edition.)

One examination paper of an hour and a half.

(2) For admission to the Faculty of Medicine, in 1916 and thereafter.

It is recommended that the course extend over one school year and consist of a minimum of two hours' class-room work and one period of two hours' practical work per week; or the equivalent amount of instruction extended over more than one school year.

Class Work:—Physical and chemical changes, elements, compounds, mixtures and solutions; fundamental chemical laws and principles, as definite proportions, multiple propor-

tions, constancy of mass, equivalence, catalysis, and the atomic hypothesis; Avogadro's hypothesis and its applications; electrolysis, with brief reference to ionization in solutions; properties of acids, bases, and salts; types of chemical reactions; methods of oxidation, reduction and replacement; chemical nomenclature; use of formulæ and equations.

Occurrence, preparation, physical and chemical properties of the following elements: hydrogen, oxygen, nitrogen, sulphur, sodium, chlorine, bromine, iodine, carbon, calcium, phosphorus; general properties of the metals as a class; the chemistry and uses in the industries and in every-day life of the following compounds: water, hydrogen chloride, hydrogen sulphide, sulphur dioxide, sulphuric acid, ammonia, nitric acid, carbon monoxide, carbon dioxide, silicon dioxide, sodium hydroxide, sodium carbonate, calcium carbonate, calcium sulphate, calcium oxide.

Practical Work:—Note-books are to be kept by pupils in which the experiments are to be recorded and reactions described. These should be certified by the teacher as representing the actual laboratory work performed. The work should include: the preparation of most of the gases described in the class-room work, and a study of their chief characteristics and properties; neutralization properties of acids, bases and salts: formation of oxides of metals and several salts, such as sulphates, nitrates, chlorides, etc.; crystallization, filtration, distillation and sublimation; the preparation of (say) nitric acid, bromine and iodine; a few samples of precipitation tests for metals in salts. All experiments to be explained and wherever possible represented by equations in the note-books.

One examination paper of two hours.

# Physics-

(1) For admission to the Faculties of Arts, Law and Applied Science.

Properties of matter; elementary mechanics of solids and fluids, including the laws of motion, simple machines, work, energy; fluid pressure and specific gravity; thermometry, the effects and modes of transmission of heat.

Text-books recommended: — Gage's Introduction to Physical Science, 1902 edition (Ginn & Co.), Chaps. I. to IV.. inclusive: or "Physics," by Mann & Twiss, Revised Edition (Educational Book Co., Toronto).

One examination paper of an hour and a half.

(2) For admission to the Faculty of Medicine, in 1916 and thereafter.

An experimental course defined as follows, and including simple problems:

Electricity:—Magnetism; laws of magnetic attraction and repulsion; magnetic lines of force; phenomena of induction: inclination and declination of the compass; production and detection of electricity; electrical conductors and insulators; electroscopes and their construction; electrical conduction through air; radioactivity illustrated by means of uranium and thorium salts; electrical conduction in liquids; electrolysis; electroplating and electrotyping, voltmeters, storage and voltaic cells; simple notions of potential; Ohm's Law; electrical units; galvanometers and voltameters; laws of resistance; divided circuits, experimental determination of strength, resistance, and electromotive force; current induction and its general laws; the transformer, the induction coil, dynamo, telephone, motor, ether waves, Roentgen rays, and wireless telegraphy.

Heat:—Nature and sources of heat; relation between volume and the temperature of a gas (Charles' Law); absolute temperature; change of state; latent heat; specific heat; transmission of heat.

Sound:—Vibrations: transversal vibrations, illustrated with pendulums, rods, strings, membranes, plates; longitudinal vibrations illustrated with rods, strings and columns of air; production, propagation, and detection of sound waves; velocity of sound, pitch; standard forks (acoustical C=512, musical A=870); intervals; harmonic scale; diatonic scale; equally tempered scale; vibration of air in organ pipes; nodes and loops in vibrating air columns and in vibrating strings; wave lengths and velocity relations; laws of vibration of strings; interference phenomena; beats; resonance, reflection and absorption of sound.

Light:—The ether, the wave theory of light, rectilinear propagation, image through a pin-hole, beam, pencil; photometry: shadow and grease spot photometers; reflection and scattering of light; laws of reflection; images in plane mirrors, concave and convex mirrors; drawing images; refraction, laws and index of refraction; total reflection; path through a prism; lenses; drawing image produced by a lens by use of critical rays; simple microscope; dispersion and color; spectrum; recomposition of light; camera.

One examination paper of two hours.

#### FOR SENIOR MATRICULATION

#### English-

Composition.—The examination will be designed mainly to test the candidate's ability to write English. He will be expected to have acquired a fairly clear and accurate style, to be able to arrange material in an effective fashion, and to show discrimination in the choice of words. In preparation for the examination, it is suggested that students be required to write mainly on simple, expository subjects that are within the range of their actual experience.

Carpenter's Rhetoric and English Composition (Macmillan) and English Composition, by Latham and Macmillan (Educational Book Co.), are recommended as suitable textbooks.

Literature.—The examination will be based on the following texts:—Chaucer's Prologue to the Canterbury Tales; Spenser's Færie Queene, Book I, Cantos 1 and 2; Shakspere's Macbeth and As You Like It; Milton's Minor Poems (L'Allegro, Il Penseroso, Lycidas and Comus); and Bunyan's Pilgrim's Progress, Part I.

Candidates will also be expected to read Long's English Literature (Ginn & Co.), Chapters I-VII, inclusive, with especial emphasis on the portions most closely connected with the foregoing list of books.

# History-

Introduction to European History.—The course starts with the ancient world at about 1000 B. C., and covers the period of European civilization to the beginning of the Mediaeval period. Stress will be laid upon the historical geography of this period and candidates should provide themselves with Putzger's Historischer Schul-Atlas.

The examination will be based on the following texts:—Sanderson, Ancient Oriental Monarchies; Cox, Greeks and Persians; Curteis, Rise of the Macedonian Empire; Botsford, History of Rome; Adams, Civilization in the Middle Ages, Chapters I-V; Plutarch's Lives (The Lives of Themistocles, Pericles, Pyrrhus, Caius Gracchus, Cato the Younger, and Julius Cæsar; Clough's translation).

#### Latin-

Authorss—Virgil, George IV (Page, Macmillan); Winbolt and Merk's Roman Life Reader (Constable), pp. 20-63.

Prose and Unseen.—A higher standard will be required than for ordinary matriculation. Books suggested, Mitchell's Latin Composition (Macmillan's Canadian School Series); Rivington's Class Books of Latin Unseens, Book IV (Rivingtons, London).

Roman History.—Outlines to 133 B. C. Book recommended, Botsford, History of Rome (Macmillan), chs. I to VI.

Grammar.—New Latin Grammar by Sonnenschein (Clarendon Press, 1912, N. B.—Note the exact title), pp. 178-211.

#### Greek-

Abbott & Arnold's Greek Prose Composition to Exercise 36.

Allen's Elementary Greek Grammar to page 101.

Peacock & Bell's Passages for Greek Translation to end of page 15. Thuscydides, the Rise of the Athenian Empire (Culsen, Macmillan's Elementary Classics).

#### French-

Vreeland & Koren, French Syntax and Composition (Holt); Super, Histoire de France (Holt); Maupassant, Huit Contes Choisis (Heath); Lemaitre, Contes extraits de Myrrha (Heath); Labiche, La Grammaire (Heath); Daudet, Selected Stories (A. B. Co.); Milhau, Choix de Poésies (Le meunier, son fils et l'âne, Oceano Nox, La mort du loup, La nuit de mais, Les yeux); Dumas, Napoléon, including the passages for translation into French (Macmillan).

#### German-

Van der Smissen und Fraser, High School German Grammar (Copp, Clark Co.); Moscher, Wilkommen in Deutschland (Heath); Baker's German Stories (Holt); Freytag, Die Journalisten (Ginn); Collmann, Easy German Poetry (Ginn); Notes on the History of Germany; Horning, German Composition.

#### Mathematics-

Plane and Solid Geometry.—The equivalent of Books IV, VI and XI of Euclid, with supplementary matter from Hall and Stevens' Euclid.

Algebra.—Hall and Knight's Elementary Algebra (omitting chapters 40-42, inclusive), or the same subject matter in similar text-books.

Trigonometry.—Hall and Knight's Elementary Trigonometry to page 210 and chapter 19; nature and use of logorithms (Bottomley's four-figure tables).

# Physics-

A general knowledge of the more important principles of elementary physics will be required.

Text-book:—College Physics, by Reed and Guthe (Macmillan), omitting articles with asterisks and the following chapters: 6, 8, 10, 23, 27, 39, 46, 47, 48, 56, 57, 58, 59, 60, 62, 64.

#### V.—ADMISSION TO ADVANCED STANDING

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

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

# VI.—PHYSICAL EXAMINATION

In order to promote as far as possible the physical welfare of the student body, every student, on entering the University, will be required to pass a physical examination to be conducted by, or under the direction of a recognized medical practitioner.

By such an examination physical defects and weaknesses, amenable to treatment, may be discovered. The student would then be expected to apply to his physician for such remedial measures as his case may require. Those who are examined will also be advised as to the forms of exercise or athletic activities which would likely be beneficial or injurious.

# VII.—AGE OF ADMISSION

Except under special circumstances no student under the age of sixteen is admitted to the first year courses in Arts,

Applied Science or Medicine, or under the age of seventeen to the second year, and no student under the age of seventeen is admitted to the course in Law.

VIII.—OPENING DATE OF SESSION 1914-1915.

The Session 1914-1915 will open in all Faculties on Monday, September 28th, 1914.



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# REGISTRATION AND ATTENDANCE

#### I.—REGISTRATION

Between September 22nd and September 26th, both dates inclusive, students may register for the Session 1914-1915 at the office of the Registrar. Monday, September 28th, will be special registration day for all students. Lectures will commence on Tuesday, September 29th. The complete regulations regarding registration are as under:

1. Candidates entering on a course of study in any Faculty, whether as undergraduates, conditioned students or partial students, are required to attend at the office of the Registrar, some time during the week preceding the opening day of the session, in order to furnish the information necessary for the University records, to register for the particular classes which they wish to attend, and to sign the following declaration in the matricula or register:—

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

- 2. Students who have been previously enrolled shall register not later than the day immediately before the opening day of Lectures.
- 3. Students who for any reason have failed to register at the times specified above will be permitted to do so within a limited time thereafter. Those who do not register by Tuesday, September 29th, will be allowed to do so thereafter only when they have paid a fee of \$2.00 for late registration.
- 4. The Registrar is empowered to register all students whose records show that they are entitled to attend the classes applied for. To enable him to determine this, new students must present certificates at time of registration. All doubtful cases shall be dealt with by the Faculty.
- 5. The names of those who have registered for separate classes shall be sent by the Registrar to the Instructors on registration day and subsequently, as new names are received, and only those for whom cards have been received by an instructor shall be admitted to his class; except in the case of students whose standing cannot be determined at the time of

registration. To these special tickets will be issued, which will give them the right of admission to classes until such time as their status is ascertained.

- 6. Students desiring to make a change in their choice of studies must make application to the Registrar. This application must be approved by the Principal, whereupon due notice will be sent by the Registrar to all parties concerned. No change in registration will be allowed, except under special circumstances, after the fifteenth day of the session.
- 7. Persons who wish to pursue courses in the College without a view to qualifying for a degree shall be classified as partial students and shall not be admitted to any course until they have obtained the permission of the Instructor concerned. Their application must then be approved by the Faculty.
- 8. In the Faculty of Arts, where there is a choice of courses, students in attendance shall be required to choose their electives for the next year before the close of the preceding session, or (in cases where this cannot be done), not later than one week before the opening of the session.

#### 2.—ATTENDANCE

1. Students are required to attend at least seven-eighths of the total number of lectures in any one course. Those whose unexcused absences exceed one-eighth of the total number of lectures in a course shall not be permitted to come up for the examination in that course; and, in the Faculty of Applied Science, those whose unexcused absences exceed one-fourth of the total number of lectures in any course, must repeat the work in that course.

Excuses on the ground of illness or domestic affliction shall be dealt with only by the Principal. Medical certificates must be presented immediately on return to University work.

- 2. A record shall be kept by each professor or lecturer, in which the presence or absence of students shall be carefully noted. This record shall be submitted to the Faculty when required.
- 3. Credit for attendance on any lecture or class may be refused on the grounds of lateness, inattention, neglect of study, or disorderly conduct in the class room or laboratory. In the case last mentioned, the student may, at the discretion

of the Professor, be required to leave the room. Persistence in any of the above offences against discipline shall, after admonition by the Professor, be reported to the Principal. The Principal 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.

4. The following special regulations with regard to marking the attendance of students have been adopted:—

Lectures will commence on the hour, or at the conclusion of the roll-call. After the commencement of a lecture students are not allowed to enter, except with the permission of the Instructor. If permitted to enter, they will, on reporting themselves at the close of the lecture, be marked "late." Two lates will count as one absence. Lectures end at five minutes before the hour.

#### CLASSES OF STUDENTS

There are three classes of students:-

- (1) Undergraduates—Students who have passed the matriculation examination and, in the case of second and third year students, all the examinations of their course in the years below that in which they are registered.
- (2) Conditioned Undergraduates—those with defective entrance qualifications or who have failed in one or more of the subjects of their course in the year previous to that in which they are registered.
- (3) Partial Students—comprising all those who, not belonging to one of the above classes, are taking a partial course of study. Except as provided below, such students may (subject to the approval of the Head of the Department and the Dean or the Committee appointed for this purpose) attend any class without previous examination.

In order to obtain admission to the First Year class in French, intending students must have passed the University matriculation examination, or an equivalent examination, in that subject.

#### **FEES**

#### GENERAL REGULATIONS

1. Fees shall be paid to the Registrar in two payments on or before October 10th and January 10th. After these

dates an additional fee of \$2.00 will be exacted of all students in default.

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

2. Immediately after October 20th the Registrar shall send to the Instructors a list of the registered students who have not paid their fees, on receipt of which their names shall be struck from the registers of attendance, and such students cannot be re-admitted to any class except on presentation of a special ticket, signed by the Registrar, certifying to the payment of fees.

Students registering after October 20th shall pay their fees at the time of registration, failing which they become subject to the provisions of Regulation 2.

Students should note that this regulation applies to parts of a course such as History, Composition, &c., in which separate examinations are held.

# FEES IN ARTS (For Regulations re payment, see above)

Undergraduate students pursuing the full undergraduate course of their year pay a sessional fee of Ten Dollars (\$10.00).

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Conditioned Students who at the sessional examination pass all the subjects of their year, and at the same time remove conditions, shall receive a refund of any fees paid in excess of the undergraduate fee.

The fee in Field Surveying will apply as part payment for those taking the full course.

Fee for full course Conditioned Students:-

First Year Applied Science	00
Second Year Applied Science	00
First Year Arts 34.0	00
Second Year ArtsDepending on choice of subjects	
Third Year ArtsDepending on choice of subjects.	

#### SPECIAL FEES

Supplemental examinat			
of a subject, taken	at the reg	ular date fix	ked by the
Faculty			\$ 2.00

Supplemental examination, when granted at any other	
time than the regular date fixed by the Faculty, for	
each examination period	5.

A deposit of \$5.00 as caution money is required from each student. This deposit is returned at the end of the session, after deductions have been made to cover breakages, etc.

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At the request of the students themselves, and by the authority of the Royal Institution, \$2.00 additional will be exacted from all students for the support of the Student Activities Associtaion.

## INFORMATION FOR STUDENTS IN ARTS

ORDINARY COURSE FOR THE DEGREE OF B. A.

After passing the matriculation examination, an undergraduate, in order to obtain the degree of B. A. or B. Sc., is required to attend regularly the appointed courses of lectures for four years. (Undergraduates are arranged in years, from First to Fourth, according to their academic standing). The conditions of passing into the last three years of the undergraduate course are stated on page 45.

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

First Year.

Greek, 1 or 2, or Latin, 1. English and History, 1. Mathematics, 1—Algebra, Geometry and Trigonometry. Latin, 1, or Greek, 1, or French, 1, 2, or German, 1. Physics, 1.

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

German may be taken instead of trigonometry, in addition to two other foreign languages, by students who intend to read for modern language or English honours. This option will, however, be granted only on the recommendation of the departments concerned.

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

Students intending to take the double course in Arts (B. A.) and Applied Science must take a modern language in the First Year.

Second Year.

English Composition, 2.

Latin, 2, or Greek, and three of the following: Greek, 2, or Latin, 2.

English, 2.

French, 3, 4.

German, 3.

Psychology and Logic, 1A and 1B.

Mathematics, 2.

Chemistry, 1.

Students intending to take the double course in Arts (B. A.) and Applied Science must take Mathematics and a modern language.

Third Year.

English, 3A, 3B, 3C.

And two of the following:-

Mathematics.

Physics.

Latin, 3.

French, 5, 6.

Greek.

Philosophy.

#### EXAMINATIONS IN ARTS

1. There are two examinations in each year, viz., at Christmas and at the end of the session. Successful students are arranged in three classes at the sessional examinations. Those who obtain 75 per cent. and over are placed in the first class, those who have between 60 and 75 per cent. in the second class, and those with from 40 to 60 per cent. in the third class.

Christmas examinations will be held in all the subjects of the first and second years, and are obligatory on all undergraduates, and also on all partial students of the first year, unless they have been specially exempted. Partial students of the first year, who fail in the Christmas examinations, will be allowed to continue their course only by obtaining the consent of the Principal and the instructor concerned. Undergraduates and conditioned undergraduates of the first year who fail in more than three subjects at the Christmas examinations will be allowed to attend not more than three courses after Christmas as partial students, for each of which they must obtain the permission of the Feculty.

No course or courses can be counted towards a degree or diploma in the Faculty of Arts, except such as have been taken and passed after the matriculation requirements have been satisfied, and according to the regulations governing the various years of the undergraduate course.

Twenty-five per cent. of the marks given for the sessional work in each subject will be assigned to the Christmas examinations. Students prevented by illness from attending the Christmas examinations will, on presenting a medical certificate, be given sessional standing on the results of the April examinations, if they have obtained an average of 40 per cent,

at the two mid-term examinations, or (where no mid-term examinations are given) an average of 40 per cent. in class exercises. Christmas examinations in the third and fourth years may be held at the option of the professors. When held, the same value will be assigned to them as in the case of the first and second years.

2. The following are the regulations for advancement to the second, third and fourth years of the undergraduate course and are subject to the condition that a student shall not be allowed to continue a subject of the preceding year in which he has not made good his standing, except in the case of compulsory subjects in the second year.

Advancement to the Second Year.—A student who has failed to complete one of the ordinary courses of the first year may enter the second year without special permission of the Faculty.

Advancement to the Third Year.—A student may be allowed to proceed to the third year with one subject uncompleted if that subject belongs to the second year.

Advancement to the Fourth Year.—A student may be allowed to proceed to the fourth year with one subject uncompleted if that subject belongs to the third year.

Repeating Year.—By special permission of the Faculty, a student who is required to repeat his year may, on application in writing:—

- (a) Be exempted from attending lectures and passing examinations in the subjects in which he has already passed;
- (b) Be permitted to take, in addition to the subjects in which he has failed, one of the subjects of the following year of his course.
- 3. Examinations supplemental to the sessional examinations will be held in September, simultaneously with the matriculation examinations. The time for each supplemental examination will be fixed by the Faculty; the examination will not be granted at any other time, except by special permission of the Faculty, and on payment of a fee of \$5.
- 4. A list of those to whom the Faculty has granted supplemental examinations in the following September will be published after the sessional examinations.

#### Double Courses.

## Arts and Applied Science.

Students who wish to obtain the degrees of B. A. and B. Sc. (Applied Science) in six years, will spend the first three years in Arts, but must take certain classes in Applied Science during the Second and Third Years. The student will then enter the Faculty of Applied Science and devote the remaining three years entirely to the work of this Faculty.

All students in the First and Second Years of the double course must, on the 31st of March, notify the Principal that they intend to take or are taking this double course.

The subjects which they are required to take each year in the Faculty of Arts are as follows:—

#### First Year.

The curriculum as laid down for the B. A. degree in this year, except that a modern language must be taken.

#### Second Year.

- 1. English Composition.
- 2. Latin.
- 3. Mathematics (ordinary, supplemented by the regular courses on Spherical Trigonometry and on Dynamics, Statics and Hydrostatics of the First Year Applied Science).
  - 4. French or German.
- 5. The Modern Language not selected under No. 4 (if studied in the First Year), or English.
  - 6. Shopwork (moulding and smithwork).

# Third Year.

- 1. English Composition.
- 2. Physics.
- 3. Any two of the following:-English, Latin, French.
- 4. Descriptive Geometry.
- 5. Shopwork (woodworking). Mechanical drawing. Free. hand Drawing to be taken during their Second Year Science.

#### ARTS AND MEDICINE

Students who wish to obtain the Degree of B.A. and M.D. in seven years will take three years in the Faculty of Arts and during the remaining four years will work altogether in the Faculty of Medicine.

For information as to this course apply to the Registrar

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

#### ARTS AND THEOLOGY

- 1. The Faculty will make formal reports to the governing body of the Theological College which such students may attend as to:—(a) their conduct and attendance on the classes of the Faculty; (b) their standing in the several examinations; such reports to be furnished after the examinations, if called for.
- 2. Students who are pursuing a double course in Arts and Divinity (six years at least) will take in the Third and Fourth Years the courses which constitute the ordinary curriculum in Arts, less a half course in each of these years, or a whole course in either.

#### COURSES OF LECTURES IN ARTS

CLASSICS—GREEK

## Ordinary Courses

All students taking Greek are expected to provide themselves with a grammar, a Greek-English dictionary, and an Atlas of ancient geography. The following are recommended:

Allen's Elementary Greek Grammar; Liddell and Scott's Greek Lexicon (abridged, or intermediate); Kiepert's Atlas Antiquus, or Putzger's Historical Atlas.

#### First Year.

# 1. Lectures, four hours a week.

White's First Greek Book (Ginn & Company); Passages for Greek Translation (Peacock & Bell, Macmillan). Students who have not yet begun the study of Greek may take this course. It will not be necessary therefore to have passed the matriculation examination in Greek. Those students, who have shown that they are capable of more advanced work, will take the course prescribed for students of the second year. For students of the first and second years who possess the requisite attainments, a special advanced class will be formed.

N. B.—Student's who do not pass a satisfactory examination in the work of the first year, will be required to attend a tutorial class during May and June, unless exempted for some special reason.

Advanced Section.—Aristophanes, Clouds (Merry, Clarendon Press).

## Second Year.

## 2. Lectures, four hours a week.

AUTHORS: Summer Reading.—Greek History, 479 to 403 B. C. Books recommended, Bury, History of Greece (Macmillan, 8s. 6d. edition), chs. VIII to XI; Abbott. Pericles and the Golden Age of Athens (Putnam). Lectures.—Thucydides Book IV (Graves, Macmillan); Euripides, Alcestis (Blakeney Bell).

Composition: Abbott's Arnold's Greek Prose Composition (Longman's).

TRANSLATION AT SIGHT: Peacock and Bell's Passages for Greek Translation, pp. 21-35 (Macmillan's Elementary Classics).

Advanced Section.—Students will take the whole or a portion of the ordinary course, together with the additional work stated above. (See first year, Advanced Section).

# Third Year

# 3. Lectures, four hours a week.

AUTHORS: Summer Reading.—Greek History from 404-323 B. C. (Bury's History of Greece, ch. 12 to 18 inclusive, (Macmillan 8s. 6d. edition). Lectures.—Plato, Republic, Book IV (Plato, Republic I-IV, Warren, Macmillan); Homer Iliad IX (Jones and Allen, Vol. I Oxford Classical Texts); Aristophanes, Knights (Neil, Smaller Edition, Cambridge University Press). The lectures will include two courses of twelve hours each; these courses will deal with some period of Greek history or literature or with some aspect of Greek life or thought.

Composition: Sidgwick's Greek Prose Composition (Longmans).

Translation at Sight.—Tod and Longworth's Passages for Unseen Translation, Latin and Greek (Longmans).

#### LATIN

All students taking Latin are expected to provide themselves with a grammar, a Latin-English dictionary, and an Atlas of Ancient Geography. The following are recommended:—New Latin Grammar by Sonnenschein (Clarendon Press 1912; N. B.—Note the exact title); Lewis' School Dictionary, or White's Junior Students' Latin-English Dictionary; Kiepert's Atlas Antiquus, or Putzger's Historical Atlas.

#### First Year

## 1. Lectures, four hours a week.

AUTHORS:—Cicero, Pro Cluentio (omitting Section 19-42, 77-87, 97-116 (Peterson, Macmillan); Virgil, Georgic IV (Page, Macmillan).

Composition.—Latin Composition (Mitchell, Macmillan's Canadian School Series).

Translation at Sight.—Rivington's Class Books of Latin Unseens, Book II.

Roman History.—Outlines, to 133 B.C. Book recommended, Botsford, History of Rome (Macmillan), chs. I to VI. N. B.—All students will be examined in this subject.

Grammar.—New Latin Grammar by Sonnonschein (Clarendon Press, 1912; Note the exact title), pp. 178-211.

Advanced Section.—Cicero, Pro Roscio Amerino (Stock, Clarendon Press). Prose and Unseen Translation. Two hours a week.

#### Second Year.

# 2. Lectures, four hours a week.

AUTHORS: Summer Reading.—Roman History: Outlines, from 133 B. C. to 337 A. D. Book recommended. Botsford, History of Rome (Macmillan), chs. VII. to XII. N. B.—All students will be examined in this subject. Lectures.—Livy, Book XXII. (Dimsdale, Cambridge University Press); Virgil, Aeneid, Book VIII. (Tetlow, Boston, Ginn & Co.); Horace, Odes II. (Page, Macmillan).

Composition.—North and Hilliard's Latin Prose Composition, page 78 to end (Rivington's).

Translation at Sight.—Rivington's Class Books of Latin Unseens, Book VII.

Grammar.—New Latin Grammar by Sonnenschein (Clarendon Press, 1912; N. B.—Note the exact title), pages 123-178.

Advanced Section.—As in first year.

#### Third Year.

3. Lectures, four hours a week.

AUTHORS: Summer Reading.—(Third Year) Roman Empire (Jones, Story of the Nations, Fisher Unwin). (Fourth Year) Student's Roman Empire (Bury, Murray). Lectures: Tacitus, Histories, Book I. (Davies, Cambridge University Press); Virgil, Aeneid, Book VI. (Sidgwick, Pitt Press); Suetonius, Augustus (Peck, Henry Holt and Co.).

Two courses of twelve lectures each on two of the following four subjects:—

- (1) Social Life under the Empire (Friedländer, Roman Life and Manners under the Early Empire, Routledge).
- (2) Roman Literature of the Empire (Mackail's Latin Literature, John Murray).
- (3) History of the Roman Empire (Bury' Students' Roman Empire, Murray).
- (4) Cæsar in Gaul and Britain (Ancient Britain and the Invasions of Julius Cæsar, by Rice Holmes, Clarendon Press, and Cæsar's Conquest of Gaul, by Rice Holmes, Clarendon Press, 24s.).
- N. B.—In each case the books named in brackets are suggested as a useful auxiliary to the lectures. It will be left to the lecturer to decide at the beginning of the session what portions of these books, if any, will be studied in connection with the two courses.

Composition.—Latin Prose based on Cæsar (Bryans, Macmillan).

Translation at Sight.—Rivingtons' Class Books of Latin Unseens, Book IX.

#### ENGLISH.

#### First Year

1. (a) Halleck's History of English Literature (American Book Co.), pp. 1-261, with the following readings:—Chaucer, Prologue to the Canterbury Tales; Spenser, Færie

Queene, Book I; Milton, Comus, two hours a week; (b) European History (Adams, Macmillan), pp. 53-451, one hour a week; (c) Composition one hour a week. Students are required to write essays at stated periods.

#### Second Year

2. Halleck's History of English Literature, pp. 305-480), and Nineteenth Century Literature (Cunliffe and Cameron, Copp Clark Co.) (2a) Composition. One hour a week. Students are required to write essays at stated intervals.

Students are recommended to have their own copies of the following (Everyman's Library):

Lamb's Essays of Elia; De Quincey's Opium Eater; Macaulay's Essays, Vol. III, and Lays; Ruskin's Sesame and Lilies; Thackeray's Esmond; Eliot's Adam Bede; Browning's Poems, 1844-1864; Keats' Poems, M. Arnold's Poems.

#### Third Year.

3A.—Prose Writers before Dryden.—The main object of the course will be to discuss the chief literary influences visible in the Pre-Restoration writers of English prose and to examine characteristics of style. The subject will be treated chronologically. As the course is largely interpretative and critical, facts of biography will be used only when they illustrate points of moment.

Students will read the following works for examination: More, Utopia (Arber's reprint, or Temple Edition); Sidney, Apologie for Poetry (Ed. Cook, Ginn & Co. or Schuckburgh, Cambridge University Press); Lodge, Rosalynd (Newness, Caxton Series); Bacon, New Atlantis; Earle, Microcosmographie (Temple Ed.); Milton, Areopagitica (Ed. Hales, Clarendon Press).

Students are recommended to have their own copies of the following (Everyman's Library): Mallory, Morte d'Arthur; Bacon's Essays; Brown's Religio Medici, Walton's Complete Angler.

3B. English Literature.—Shakespeare.—This course will begin with a review of the early history of the English drama, and of the conditions which led to its development in the time of Elizabeth. The advances made by the earlier Elizabethan dramatists will be noted, and Shakespeare's methods illustrated by a compartive study of "A Midsummer Night's

Dream," "Romeo and Juliet," "Henry V.," "As You Like It," "Hamlet," "King Lear," "Macbeth" and "The Tempest"; the relation of these plays to their sources will also be considered. Students are recommended to read as many of Shakespeare's plays as they can, and the following (published in Everyman's Library):—The Plays of Sophocles, Marlowe's Plays, Everyman, Minor Elizabethan Dramatists, 2 vols. Books of reference will be named from time to time. Two hours a week.

3C. English Composition.—An advanced course on English Composition, including style, methods and principles of literary criticism, treated from the historical point of view, and an introduction to the comparative study of literature in accordance with the most recent results of contemporary thought and research. In connection with this course students will be examined in a course of prescribed readings. Essays at stated periods are required of all. Winchester, Principles of Literary Criticism. One hour a week.

Books of Reference and Authorities—Saintsbury's History of Criticism; Lessing, Sainte-Beuve, Brunetiere, Arnold, Ruskin, Worsfold.

# MODERN LANGUAGES

# A.—FRENCH

# ORDINARY COURSES.

# First Year.

- 1. Vreeland & Koren, French Syntax and Composition (Holt); Super, Histoire de France (Holt); Maupassant, Huit Contes Choisis (Heath).
- 2. Lemaitre, Contes extraits de Myrrha (Heath); Labiche, Le Voyage de M. Perrichon (Heath); Daudet, Selected Stories (A. B. Co.); Milhau, Choix de Poésies (Le meunier, son fils et l'âne, Oceano Nox, Les Animaux Malades de la peste, La nuit de mai, Les yeux); Thiers, Napoléon en Egypte (Holt); Renan, Souvenirs d'enfance et de jeunesse (Heath).

Advanced Section (in place of course 2): French Short Stories selected by Buffon (Holt); Molière, Les Précieuses Ridicules; Milhau, Choix de Poésies (Renouf).

Four hours weekly, two for each course.

#### Second Year.

Summer Readings, for students entering on their second year:—Corneille, Cinna (Holt); Daudet, Le Petit Chose (Heath).

The examination on summer readings will be held in the first week of the session.

#### Sessional Lectures:-

- 3. Vreeland and Koren, French Syntax and Composition (Holt); Corneille, Le Cid (Holt); Bazin, Les Oberlé (Holt); Elementary Historical French Grammar.
- 4. Hugo, Notre Dame de Paris (Ginn); Molière, Les Femmes Savantes (Heath); Racine, Andromaque; Mansion, Esquisse de la Littérature Française (McDougall & Co., London), pp. 62-155.

Four hours weekly, two for each course.

Advanced Section (in place of course 4), Molière, Les Femmes Savantes (Heath); Racine, Andromaque; Lesage, Gil Blas (Heath); Beaumarchais, Le Barbier de Séville (Macmillan); The Oxford Book of French Verse; Mansion, Esquisse de la Littérature Française, XVIIth and XVIIIth century.

#### Third Year.

The course will consist mainly in the study of French literature and advanced prose composition.

Summer Readings for students entering on the third or fourth year:—Racine, Britannicus; Molière, L'Avare.

The examination on summer readings will be held in the first week of the session.

## Sessional Lectures:-

5. For 1914-15—(a):—French Literature, from the XIth to the end of the XVIIth Century. Darmsteter, Morceaux choisis du XVI iéme siécle; Corneille, Horace; Montaigne, Essais Vol. I. (Nelson, Lutetia Edition); Racine. Les Plaideurs, Andromaque; Molière, Misanthrope; Lafontaine (Ginn); La Bruyère, Selections; Madame de la Fayette, La Princesse de Clève; Doumic, Histoire de la Littérature Française.

Prose Composition.—Spiers, Graduated Course of Translation into French Prose (Simpkin, Marshall & Co.)

N. B.—In order to be admitted to the third year French a student must know French well enough to take lectures delivered in French and express himself in French with some fluency and correctness.

Four hours weekly.

#### B.—GERMAN

#### ORDINARY COURSES.

## Beginners' Course.

1. Van der Smissen und Fraser, High School German Grammar (Copp, Clark Co.); Müller and Wenckebach, Glück Auf (Ginn); Nichols, Easy German Reader (Holt).

Four hours weekly.

#### First Year.

2. Van der Smissen und Fraser, High School German Grammar (Copp, Clark Co.); Moscher, Wilkommen in Deutschland (Heath); Baker's German Stories (Holt); Freytag, Die Journalisten (Ginn); Collimann, Easy German Poetry (Ginn); Notes on the History of Germany; Horning, German Composition.

Four hours weekly.

# Second Year.

Summer Readings, for students entering on their second year, and obligatory for students coming from the Beginners' Class; Riehl, Die vierzehn Nothelfer (A. B. Co.); Moser, Der Bibliothekar (Heath); Schrakamp, Ernestes und Heiteres (A. B. Co.)

The examination on summer readings will be held in the first week of the session.

3. Wilhelm Tell; Lessing, Minna von Barnhelm (Heath); Goethe, Reineke Fuchs (Holts); Keller, Bilder aus der Deutschen Literatur (American Book Co., edition 1905).

Four hours weekly.

For students in the advanced course an additional hour will be provided for the purpose of further study.

#### PHILOSOPHY

#### Second Year.

- 1A. Elementary Psychology.
- 1B. Logic.—A course in the elements of logic, including the fallacies. Fortnightly exercises.

Text-Book:—S. H. Mellone, Introductory Text-Book of Logic (fourth edition), omitting section 5, chap. IV., and chaps. IX and XI. Use will be made of Lafleur's Illustrations of Logic.

2. Introduction to Philosophy.—A general introductory course for students, both inside and outside the philosophical department. It will begin with some ten to twelve lecturetalks (two weekly at some convenient afternoon hour), upon the nature of philosophy, its meaning to mankind and to human culture, its place as a university study, etc. Any students who wish (for proper reasons) to content themselves with this preliminary study, will be free to leave the course at this stage. Thereafter the course will be continued for one or two hours a week, for the benefit of those looking forward to a more thorough, or detailed, study of philosophy in the later years. An outline treatment will be given of the main schools and divisions of philosophical thought, and some of the main problems of philosophy, e. g., the idealistic and realistic views of the nature of reality, the critical philosophy, the problem of knowledge, the problem if ideals and conduct, determinism, freedom, etc.

This course will not begin until about the end of October or the beginning of November, and an announcement regarding it will be posted after the work of the year has been begun.

Two hours weekly for five or six weeks, and then one or two hours weekly.

#### Third Year.

- 2A. Moral Philosophy.—Outlines of ethics as a science; morality in the race and in the individual; the postulates and divisions of ethical science; theories of conscience and of the moral standard; the ethics of idealism and the ethics of evolution.
- 2B. Applied Ethics.—Ethics and the sociological movement of recent times; the ethics of the social questions; the duties and the virtues and the unity of the moral life; moral pathology; moral training; the ethical problem of the present time.

## MATHEMATICS

#### ORDINARY COURSES.

#### First Year.

1. Plane and Solid Geometry.—As in Hall and Stevens' Geometry. Two hours a week (before Christmas).

Algebra.—Hall and Knight's Elementary Algebra (omitting chapters 40-42, inclusive, or the same subject matter in similar text books. Two hours a week (after Christmas).

Trigonometry.—Hall and Knight's Elementary Trigonometry to page 210 and chapter 19; nature and use of logarithms (Bottomley's four-figure tables). Two hours a week throughout the session.

#### Second Year.

2. Geometry.—(a) Solid Geometry, continuation of the first year; (b) Geometrical Conic Sections. Wilson's Solid Geometry and Geometrical Conics. Three hours a week (before Christmas).

Algebra.—Permutations and combinations; binomial theorem; exponential and logarithmic series; interest, annuities and bonds; undetermined coefficients; partial fractions; summation of typical series; probabilities; determinants; graphic methods. Three hours a week (after Christmas).

Text-Book:-Hall and Knight's Higher Algebra.

Spherical Trigonometry.—A short course compulsory for students proceeding to the Faculty of Applied Science.

# Third Year.

3. Analytical Geometry (C. Smith). Two hours a week. Infinitesimal Calculus (Lamb). Two hours a week.

## PHYSICS.

## First Year.

1. Physics.—This course has two objects: (1) to give the minimum acquaintance with physical science requisite for a liberal education to those whose studies will be mainly literary; (2) to be introductory to the courses in chemistry and other branches of natural science, and to the more detailed courses in physics in the third and fourth years. Only the most important principles in each branch of the subject will be

treated, as far as possible, with reference to their historical development and mutual relations. Two lectures will be given per week which will be fully illustrated by experiments. During the session each student will be required to attend in the laboratory and make measurements involving the use of the following instruments:—balance, pendulum, barometer, thermometer, sonometer, telescope, microscope, tangent galvanometer, Wheatstone's Bridge.

Text-Book:—Ontario High School Physics, and Laboratory Manual.

#### Third Year.

3. Heat, Sound and Light (Full Course).—These lectures are taken by third year ordinary students and second year honour and B. Sc. students. Two hours per week.

Text-Books—Draper's Advanced Heat. Deschanel's Sound and Light.

Laboratory course, three hours per week.

Text-Book:—Laboratory manuscripts. See courses 311 and 312 under Applied Science.

#### CHEMISTRY:

#### Second Year.

1. General Chemistry.—A course of lectures on elementary chemical theory, and on the principal elements and their compounds. The lectures are fully illustrated by means of experiments.

Tc.xt-Book:—Alex. Smith's Chemistry for Colleges. Three hours a week.

Elementary Practical Chemistry.—This course is compulsory for all undergraduates taking the above course of lectures. The work includes experiments illustrative of the laws of chemical combination, the preparation of pure chemical compounds, and elementary qualitative analysis. Three hours a week.

## INFORMATION FOR STUDENTS IN APPLIED SCIENCE

The instruction in this Department covers the work of the First and Second Years of the Faculty of Applied Science of McGill University. Being largely in Mathematics and pure Science, it is intended as a foundation for the specialization carried on in the Third and Fourth Years in the various branches of Engineering. In two additional years at McGill, students may proceed to the Degree of B. Sc. in any of the following Departments:—

- 1. Architecture.
- 2. Chemistry.
- 3. Chemical Engineering.
- 4. Civil Engineering and Surveying.
- 5. Electrical Engineering.
- 6. Mechanical Engineering.
- 7. Metallurgical Engineering.
- 8. Metallurgy.
- 9. Mining Engineering.
- 10. Railway Transportation.

The regular work of each session in Applied Science will end about the first of May, at the close of the sessional examinations. The summer work will be taken during the month of September.

# EXAMINATIONS.

- 1. Final examinations are held in all lecture subjects. Class examinations, for which credit will be given in the sessional standing, are held from time to time, at the option of the professor.
- 2. Students who have failed in one or more subjects of the curriculum shall be required to make good their standing by passing:—
  - (1) The supplemental examinations, or
  - (2) The final examinations in a subsequent session, or
  - (3) Special examinations, which shall be given only in exceptional circumstances and by authority of the Faculty.
- 3. No undergraduate will be allowed to take instruction in any subject until he has passed the examinations in the necessary pre-requisite subjects, for particulars regarding which see page 70.

4. Failures in drawing room and laboratory subjects may under certain conditions be made good by attendance on special classes during the afternoons of the first six weeks of the following session.

#### SUMMER WORK

- 1. All undergraduates entering the second year—except those taking the Practical Chemistry Course (Course II), and the Metallurgy Course (Course VIII)—; all students in the Civil Engineering, Mining Engineering and Railway Transportation courses entering the third year, and students in the Civil Egineering Course entering the fourth year, are required to be in attendance at the Surveying School on the 1st of September, when the field work in surveying and geodesy will commence. (See page 70).
- 2. Undergraduates in the Mechanical, Electrical, Chemical and Metallurgical Engineering courses, and in Chemistry and Metallurgy, are required to attend a summer session of four weeks between the second and third years.
- 3. Undergraduates in the Mining and Metallurgical courses are required to attend the summer schools in Mining and Metallurgy, held between the third and fourth years (four to six weeks of field-work). These schools are held in May and June.

# Summer Essays and Summer Reading. Session 1914-1915.

1. For Students entering the Second Year.

All students entering the second year, except those in the Course of Architecture, will be required to read the following English Classics:—

Southey's "Life of Nelson."

Lamb's "The Essays of Elia."

Kingsley's "Hereward the Wake."

Dickens' "David Copperfield."

George Eliot's "Adam Bede."

Everyman's Library

All students will be required to pass an examination in the summer reading at the opening of the session. A maximum of 100 marks will be allowed for this reading.

# 2.—For Students Entering the Third Year

Students entering the Third Year, except those in the Course of Architecture, must.

- (a) Prepare an essay, or
- (b) Follow a course of summer reading.
- (a) The essay must in all respects follow the specifications laid down in the case of essays submitted by students entering the Fourth Year, except that it should be somewhat shorter, consisting of about 2,000 words. All rules and regulations governing the Fourth Year essays, as set forth below, also apply to the Third Year essays.

Students in Electrical Engineering, electing to write an essay, and who are not engaged during the summer on any engineering, scientific or industrial work which would afford a subject for an essay, may write on one of the following subjects:

- (1) The Application of Electric Power to Industrial
- (2) Relation between Fundamental, Electrical and Mechanical Units.

Students in Mining Engineering who are for any reason unable to write on some engineering work of which they have personal knowledge will be required to take the summer reading (b) next following.

(b) The summer reading which may be substituted for the summer essay consists of:

Shadwell's Industrial Efficiency. (Longmans, Green & Co., 1909).

The following subjects for essays are suggested as suitable for Mechanical Engineering students who are not engaged during the summer in engineering work:—

- (1) Mechanical stokers.
- (2) Superheaters and use of superheated steam.
- (3) Air compressors.

Students will be required to pass an examination in the summer reading at the opening of the session. The same number of marks are allotted for this reading as for the essay.

All essays must be handed in at the Dean's Office not later than 5 p.m. on Thursday, October 10th. A maximum of 100 marks, or nearly 10 per cent. of the total marks for the year, is given for these essays.

The most acceptable subject for an essay is a critical description of the work on which the student is engaged during the summer, but a description of any engineering, scientific or industrial work with which he is familiar will be accepted.

They should be illustrated by drawings, sketches, and (when desirable) by photographs, specimens, etc.

No essay compiled from books alone will be accepted unless the student has obtained in advance the permission of the Head of his Department to prepare such an essay.

The essays must be well expressed and written in precise, well-chosen, grammatical English. In preparing them advantage may be taken of any source of information, but due acknowledgment must always be made, and they must contain a statement of all authorities and books consulted. In judging of the value of the essays, account will be taken not only of the subject matter, but also of style and literary construction.

All essays when handed in will become the property of the Department concerned and will be filed for reference. Students may submit duplicate copies of their essays in competition for the students' prizes of the Canadian Society of Civil Engineers, or of the Canadian Mining Institute.

Essays must be written on paper of substantial quality, and of a size approximately 8½x11 inches.

#### GENERAL OUTLINE OF COURSES

The curriculum, as laid down in the following pages, may be changed from time to time as deemed advisable by the Faculty. The work prescribed for the first two years is the same in all courses. The first two years of the engineering courses (III to VII and IX and X) are mainly devoted to mathematics, mechanics, physics, chemistry, drawing and shopwork, as it is deemed necessary that students in these courses should master the general principles underlying scientific work before commencing the subjects of the professional courses proper.

The subjects of instruction in the engineering courses in these years, and the number of hours per week devoted to each, are as follows:—

FIRST YEAR.

Subject	Subject per week etc., peri- per week			Laboratory, etc., periods* per week.	
			Second		
Algebra. Descriptive Geometry. English Freehand Drawing. Geometry. Mech. Drawing. Mechanics Physics. Physics, Lab. Shopwork & Shop Methods Trigonometry.	192 341 131 342, 343 191 211 194 311 312 212, to 215	5 2 3 2 2	5	1  2  1 	3  1  1 2

<sup>\*</sup>A laboratory period is three hours.

All undergraduate students of the First Year, except those in the course of Architecture, who at the close of the first term have failed to obtain an average of 33 per cent. in the following five subjects, viz.:—mechanics, geometry, algebra, physics and descriptive geometry, will be required to withdraw from the Faculty.

Any other students whose record is found to be unsatisfactory may at any time be required to withdraw from the Faculty.

#### Second Year.

Subject	Subject Number	Lectures per week		Laboratory, etc. periods* per week		
		First	Second	First	Second	
Anal. Geometry.  Calculus. General Chemistry. General Chemistry Lab. Graphical Statics. Mapping. Materials of Construction. Mechanical Drawing. Mechanics. Mech of Machines. Physics. Physics Lab. Shopwork and Shopwork	197 198 51 52 82 348 81 219 83 218 315 316	3 3 3 3	333	:: :i :i :i :: ::	··· ·· · · · · · · · · · · · · · · · ·	
Methods	220-221 346 347		ż	1	1	

\*A laboratory period is three hours.

Note.—Surveying field work, 4 weeks, beginning August 31st, 1914.

#### COURSES OF LECTURES.

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

#### CHEMISTRY.

#### Second Year Lectures.

51. General Chemistry.—An introductory course in descriptive and theoretical chemistry. The fundamental laws and theories are studied in conjunction with a detailed description of the preparation, properties and industrial applications of the more important elements and their compounds. Three hours a week.

Text-Book:—Alex. Smith's General Chemistry for Colleges.

# Second Year Laboratory.

52. General Chemistry.—In this course the student is taught the construction and use of ordinary apparatus and performs a series of experiments designed to cultivate the powers of observation and deduction. Many of these experiments involve accurate weighing. Considerable attention is also devoted to the subject of qualitative analysis. One period a week for all students of Engineering.

#### Second Year.

81. Materials of Construction.—Manufacture and properties of cast iron, wrought iron; crucible, bessemer and open hearth steel; principal alloys; considerations governing selection of materials; manufacture and properties of Portland and natural cements; limes; concrete; stone and brick masonry; principal kinds of timber used for engineering purposes; preservation of timber; discussion of standard specifications.

Required of all engineering students. One hour per week.

- 82. Graphical Statics.—Composition of forces; general methods involving the use of funicular and force polygons; determination of reactions, centres of gravity, bending moments and moments of resistance; stresses in cranes, braced towers, roof trusses and bridge trusses. Required of all engineering students. Three hours per week, second term.
- 83. Mechanics.—The course includes the general principles of statics, and of the dynamics of a particle. Motion of a particle under varying force is considered and a knowledge of both differential and integral calculus is essential. Simple harmonic motion is considered (taking the oscillation of springs and pendulums in illustration), and numerous applications of the principles dealt with are worked out.

Three lectures per week, second term.

Text-Book: -- Morley, Mechanics for Engineers.

# DESCRIPTIVE GEOMETRY AND FREEHAND DRAWING

This course deals with the methods of representing objects on one plane so that their true dimensions may be accurately scaled. It discusses the methods employed in the graphical solution of the various problems arising in engineering design, and deals generally with the principles underlying all constructive drawing. The methods taught are illustrated by applications to practical problems. It is the aim of the work to develop the imagination in respect to the power of mentally picturing unseen objects, and, incidentally, precision in the use of the drawing instruments is attained.

341. First Year.—Geometrical drawing; problems on straight line and plane; projections of plane and solid figures; curved surfaces and tangent planes; intersections of surfaces; axometric projections; shades and shadows.

Text-Books:—Geometrical Drawing by C. H. McLeod; McLeod's Elementary Descriptive Geometry.

- 342. In the Freehand Drawing Course the object is to train the hand and eye so that students may readily make sketches, from parts of machinery, etc., either as note-book sketches, diagrams, perspective drawings in light and shade, or as preparatory dimensioned sketches from which to make scale drawings.
- 343. In the Lettering Course, plain block alphabets, round writing, and titles, such as are chiefly in use in draughting offices will be dealt with. In this course, also, tinting, tracing, blue printing and simple map drawing will be included.

#### ENGLISH COMPOSITION

131. In view of the importance of accuracy of expression in the case of those engaged in scientific or professional work, a course on English composition is prescribed for all undergraduates of the first year. Students who give evidence of having already reached the required standard of efficiency by passing a special exemption examination may be excused from attendance on this course. This special examination will be held on Thursday, October 1st, at 11 o'clock.

Satisfactory results in class and essay work must be obtained before entry into the Second Year. All undergraduates of the First Year, whether exempt or not from attendance on

the course, must pass the final examination.

In connection with this course, the following text-books may be used:—Carpenter's Rhetoric and English Composition (Macmillan); Wooley's Handbook of Composition (Heath).

132. Summer Reading. (See page 59).

#### MATHEMATICS

FIRST YEAR-

- 191. Geometry.—Exercises in plane geometry, elements of solid geometry and of geometrical conic sections. First term. Text-Book:—Hall and Stevens' School Geometry, Parts I-VI, (Macmillan).
- 192. Algebra.—Miscellaneous theorems and exercises, exponential and other series, properties and solutions of higher equations, complex numbers and vector algebra, graphical

algebra with an introduction to analytic geometry, indeterminate forms, limits, derivatives, slopes of curves. First year (first and second terms). (Text-Books:—Rietz and Crathorne's College Algebra (Holt & Co.), Tanner and Allen's Analytic Geometry (American Book Co.)

- 193. Trigonometry.—Plane and spherical. Second term. Text-Book:—Murray's Plane and Spherical Trigonometry, with tables (Longman's).
- 194. Mechanics.—An elementary course in dynamics, statics, and hydrostatics. First and second terms. Text-Book:—Loney's Mechanics and Hydrostatics for Beginners (Cambridge University Press).
- 197. Analytic Geometry.—The point, straight line, circle. parabola, ellipse and hyperbola, elements of geometry of three dimensions. First Year (latter part of second term), and Second Year (first term). The Second Year work begins with the circle. Text-Book:—Tanner and Allen's Analytic Geometry (American Book Co.)
  SECOND YEAR—
- 198. Calculus.—Differentiation of functions of one or more variables, successive differentiation, tangents, etc., curvature, maxima and minima, integration, with applications to areas, volumes, moments of inertia, etc. First and second terms. Text-Book:—Murray's Differential and Intregal Calculus (Longman's).

#### MECHANICAL ENGINEERING

#### First Year

211. Mechanical Drawing and Designing.—Elementary principles of mechanical drawing and draftsmanship; preparation of working drawings and tracings of simple machine details.

In connection with this work a brief course of lectures is given upon drafting room methods and standards, and the elementary considerations in the design and construction of, and selection of materials for simple machine parts. Required of all Engineering students. Three hours per week.

Shopwork.—The course in shopwork is intended to afford some preparation for that study of workshop practice on a commercial scale which every engineer has to carry out for

himself. With this end in view, the student works in the various shops of the department, and completes in each a series of practical exercises. He thus obtains some knowledge of the nature and properties of the various materials he employs; he receives systematic instruction in the use and care of the more important hand and machine tools; and he acquires some manual skill. The instruction thus obtained must, however, be continued and supplemented. For this purpose students are expected to spend the greater portion of each long vacation in gaining practical experience in engineering workshops outside the University.

Students are required to read and make notes of selected portions of certain text-books and articles in technical journals, illustrative of the work done in each shop. The practical work is supplemented by a brief course of lectures dealing with shop processes and tools. The subject dealt with in this way gives the student a clearer idea of the care and use of the various instruments and tools, and of the performance of the machines.

In connection with his shopwork, each student is required to keep a record of his work. These records or notes are made on standard forms. These are handed in to the Shop Instructor at the close of each period of work, and, together with diligence and the results of a brief written examination, form the basis on which credit for workshop is assigned. Required of all Engineering students. Six hours per week.

- 212. Carpentry and Wood-turning.—Sharpening and care of wood-working tools; sawing, planing and paring to size; preparation of flat surfaces, parallel strips, and rectangular blocks; construction of the principal joints employed in carpentry and joiner work, such as end and middle lap joints, end and middle mortise and tenon joints, mitres, dado and sash joints; dovetailing; scarfing; joints used in roof and girder work; wood-turning; use of wood-turning tools.
- 213. Smith-work.—The forge and its tools; use and care of smith's tools; management of fire; use of anvil and swage-block; drawing taper, square and parallel work; bending, upsetting, twisting, punching, and cutting; welding and scarfing.
- 214 Foundry-work.—Moulders' tools and materials used in foundry work; the cupola; the brass furnace; preparation of moulding sand; boxes and flasks; core-making; use of core-irons; bench moulding; blackening, coring and finish-

ing moulds; vents, gates and risers; floor moulding; open sand work; melting and pouring metal; mixtures for iron and brass casting.

## Second Year

218. Mechanics of Machines.—(a) Kinematics of machines. Constrained motion; kinematic pairing; velocity and acceleration in mechanisms, centrodes; analysis and classification of simple mechanisms, including the quadric crank chain, the slider crank chain and various wheel trains; designs of involute and of cycloidal wheel-teeth. (b) Dynamics of Machines.—Work and power; the power and turning effort of prime movers; inertia and kinetic energy of revolving and reciprocating parts of machines. Required of all Engineering students. Three hours per week.

Text-Book:—Durley's Kinematics of Machines (Wiley).

219. Mechanical Drawing.

Drafting and tracing of more difficult exercises; and the making of assembly and detail drawings of machine parts. Lectures are given from time to time during the course dealing with drafting room methods, explanation of designs, and discussion of the reasons for selection of materials.

Required of all Engineering students. Three hours per week.

220. Machine-shop Work.—Exercises in chipping; preparation of flat surfaces; filing to straight edge and surface plate, scraping, screwing and tapping; use of scribing block and surface gauge; marking off work for lathes and other machines; turning and boring cylindrical work to gauge; surfacing; screw-cutting and preparation of screw-cutting tools; machining flat and curved surfaces on the planing and shaping machines; drilling and boring; cutting angles and speeds; dressing and grinding tools.

Required of all Engineering students. Three hours per week.

221. Shop Methods. — Tools; tool steels; forging, hardening and tempering; case hardening; grinding and abrasives; brazing and soldering; modern welding processes; fits and fitting; interchangeable processes of manufacture; lathe construction, adjustments and practice.

Required of all Engineering students.

One hour per week.

Text-Book.-Elements of Machine Work. R. H. Smith.

#### PHYSICS

The instruction includes a fully illustrated course of experimental lectures on the general principles of physics (embracing, in the first year, The Laws of Energy—Heat, Light, and Sound; in the second year, Electricity and Magnetism), accompanied by courses of practical work in the laboratory, in which the students will perform for themselves experiments, chiefly quantitative, illustrating the subjects treated in the lectures. Opportunity will be given to acquire experience with all the principal instruments used in exact physical and practical measurements.

#### First Year

311. Lecture Course. Subject—Heat, Sound and Light. Two hours per week.

Text-Book:—Draper's Advanced Heat; Deschanel's Sound and Light, (Renouf Publishing Co.)

312. Laboratory Course.—Three hours per week, spent in practical measurements in conjunction with the lecture courses.

#### Second Year.

- 315. Electricity and Magnetism. Lecture course two hours per week.
- 316. Laboratory Course, three hours per week. (a) Magnetism and Electricity.—Measurements of pole strength and moment of a magnet; the magnetic field; methods of deflection, and oscilation; comparison of moments and determination of the elements of the earth's magnetism. (b) Current Electricity.—A complete course of measurements of current strength, resistance, and electromotive force; calibration of galvanometers.

Text-Books:—Brooks and Poyser, Electricity and Magnetism (Macmillan).

#### SURVEYING

This course is designed to give the student a theoretical and practical training in the methods of plane and geodetic

surveying, and in the field work of engineering operations. The lecture course is divided as follows:—

#### Second Year.

346. Chain and Angular Surveying; the construction, adjustment, use and limitations of the transit, level, micrometer, compass and minor field and office instruments; topography; levelling; contour surveying; stadia surveying; railway circular curves; planimeter and pantograph; land systems of the Dominion and Provinces.

Field Work.—The students are required to carry out the following work:—

- 347.—(1) A farm survey, using chain and compass; (2) a compass and micrometer survey; (3) a detail survey, using chain and offset; (4) levelling; (5) transit work.
- 348. Mapping.—Drafting from field notes of chain and angular surveys.

#### REGULATIONS CONCERNING PREREQUISITE SUBJECTS

- (1) No student proceeding to a degree will be allowed to take any subject, unless he has previously passed, or secured exemption, in all prerequisite subjects. (See page 72).
- (2) All students proceeding to a degree as above shall be classed as undergraduates and conditioned undergraduates, the latter being students with defective entrance qualifications or who have failed in one or more of the subjects of their course in the year previous to that in which they are entered.
- (3) Except in special cases as provided below, no undergraduate or conditioned undergraduate shall be permitted to take any Second Year subject until he has passed or secured exemption in all matriculation requirements; and, similarly, no Third or Fourth Year work may be undertaken until all First or Second Year subjects respectively shall have been passed or exempted.

The Faculty may waive this rule in special cases.

(4) Partial students not proceeding to a degree may be admitted to classes without regard to the prerequisite rule provided that they have obtained the permission of the head of each department concerned, and have also had their courses approved by the Faculty.

- (5) In the event of a partial student desiring to obtain undergraduate standing in order to proceed to a degree, he shall not be given credit for work already done without the usual prerequisites until he has also passed examinations or secured exemptions in such prerequisites as may be demanded and has had his case approved by a unanimous vote of the Faculty.
- (6) All undergraduates who at the close of any session have passed the examinations in all the subjects of their Year, or who at the opening of the following session have removed all conditions by passing supplemental examinations in the subjects in which they have failed, may pass into the next higher year as undergraduates.
- (7) All students who have conditions that have not been removed at the opening of any session are conditioned undergraduates, and come under the regulations governing prerequisite subjects. The rules concerning prerequisite subjects make it possible for a student whose failures are not too numerous or too serious, to complete his course in five years instead of four, which suffice for a student who remains in good standing throughout his course.

It is to be noted that prerequisite subjects are those which, in the opinion of the Faculty, must have been mastered before the subjects to which they are prerequisite can be intelligently studied.

Concurrent subjects are those which so supplement one another that no one of them can be intelligently studied alone. If any subject has another which is concurrent to it, both must be taken in the same session.

No student with a condition will be admitted to the second term of the Fourth Year as an undergraduate, nor can such student graduate with his class.

List of subjects in Faculty of Applied Science with the Numbers of Subjects which are prerequisite and concurrent:

No.	Year	Year Subject Prerequisite	
51	II.	General Chemistry	52
52	II.	General Chemistry Lab 311, 312	51
81	II.	Materials of Construction	
82	II.	Graphical Statics	
83	II.	Mechanics194	198
31	I.	English Composition	
32	II.	English Summer Reading	
	_		
91	Į.	Geometry	
92	I.	AlgebraTrigonometry	
93	İ.	Mechanics	
94	1.	Wechanics	
97	II.	Analytic Geometry192	
98	II.	Calculus192	
11	I.	Mechanical Drawing	
12	Ī.	Carpentry and Wood Turning	
13	I.	Smith Work	
14	I.	Foundry Work	
15	I.	Shop Methods	
18	II.	Mechanics of Machines 191, 192, 194	198
19	ĮĮ.	Mechanical Drawing 211	
20	II.	Machine Shop Work	
21	11.	Shop Methods	
11	I.	Physics	
12	I.	Physical Lab	311
15	II.	Physics	
16	II.	Physical Lab	315
41	I.	Desc. Geometry	
42	I.	Freehand Drawing	
43	I.	Lettering	
46	II.	Surveying 191, 193	
47	ĮĮ.	Surveying Fieldwork	
48	II.	Mapping 342, 343	

For prerequisite Third Year subjects see announcement of the McGill University Faculty of Applied Ssience.

# DEPARTMENT OF MUSIC

For the benefit of students desirous of continuing their studies in Music, the following extract is made from the Calendar of McGill University, Montreal:

#### LOCAL EXAMINATIONS.

Public Local Examinations are now held yearly at various centres throughout the Dominion by examiners sent out by the University.

These examinations may be looked upon as preparatory to the Examinations for Diplomas and Degrees in Music granted by the University. There are in most of the subjects five grades, and certificates gained in the higher grades will exempt the candidate from certain portions of the Examinations for a Diploma or Degree.

# DIPLOMA OF LICENTIATE IN MUSIC

Candidates for this diploma may elect to be examined either in:—

Theoretical subjects and composition	(Class	I)
Practical subjects as performers		
Both theory and practice as teachers	(Class	(III

The candidate must pass three examinations.

## First Examination:

- (a) Rudiments of Music, including sight reading and ear tests.
- (b) Harmony in four parts up to, and including, dominant 9th (a practical test will be substituted for performers).
- (c) Counterpoint in two parts (practical test substituted for performers).
  - (d) Chief subject of study.

The possession of a Grade I. certificate of the Local Theoretical Examinations will exempt candidates in Class I. from this examination. In Class II., exemption may be claimed if the candidate has passed Grade I. (Practical) and Grade II. or Grade III. (Theoretical), of the Local examinations.

In Class III. candidates must hold Grade I. (Theoretical) and Grade II. (Practical) certificates in order to claim exemption.

In the second and third examinations, between which a year must elapse, the requirements for Classes I. and III. are, on general lines, similar to those for the First and Second Mus. Bac., Examinations respectively. In the case of Class II. practical tests are substituted for many of the theoretical tests. Candidates in Class III. will, in the Final Examination, have to pass in "The Art of Teaching Music," which will be partly viva voce and partly paper work.

In both the Licentiate and Mus. Bac. Examinations, considerable latitude is allowed in the choice of a second practical study. Total exemption from examination in it will be allowed if the candidate possesses recent certificates gained in the higher grades of the Local Examinations in that subject.

Those holding the diploma of L. Mus. can at any time during the five years immediately following their passing that examination enter for the Mus. Bac. final examination, but they must pass the Matriculation examination.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF MUSIC

Candidates for the Degree must have passed the following examinations:—

- 1. The Matriculation Examination.
- 2. The First Examination in Music, at the end of the First Year.
- 3. The Second Examination in Music, at the end of the Second Year.
  - 4. The Final Examination.

The particulars of the work for each of the above examinations are as follows:—

First Examination in Music.

- (a) Advanced Rudiments.
- (b) Harmony in 3 and 4 parts.
- (c) Counterpoint up to 3 parts.

- (d) Form and analysis. Questions will be given on accent, cadence, metre, rythm, phrasing, etc., and on form shown in the work of the early classicists (Scarlatti, Bach, Mozart and Haydn).
  - (e) General outlines of Musical History.
- (f) Chief and Second Practical Study (or instead of one of these the composition of a song (or songs) or a miniature suite for Piano (or violin and piano or any other combination).

# Second Examination in Music.

- (a) Harmony in not more than 4 parts.
- (b) Counterpoint in not more than 4 parts.
- (c) Canon in 2 parts and Fugal Exposition up to 4 parts.
- (d) History of Music from the 16th Century to the present day, with some critical knowledge of a few compositions, either studied during the year or prescribed beforehand.
  - (e) Form and analysis.
- (f) Elementary knowledge of Acoustics, or Physiology of Voice.
- (g) Chief and Second Practical Study or, instead of one of these, the composition of:—(1) A movement in Sonata form for Pianoforte (or Piano and Violin, or any other combination), or (2) Chorus with independent accompaniment or (3) Suite for Strings.

# Final Examination in Music:

- (a) Harmony up to 5 parts.
- (b) Counterpoint up to 5 parts.
- (c) Double counterpoint in 8ve, 10th and 12th.
- (d) Canon and Fugue in 4 parts.
- (e) History of Music from the earliest to the present time.
- (f) Form and Analysis. A knowledge will be required of such works as the following:—Bach's 48 Preludes and Fuges, Beethoven's Sonatas, Schubert, Schumann and Brahm's Songs, Mendelssohn's Psalms and such Oratorios as Elijah and St. Paul. (The candidate should send in a list of works, in which he or she is prepared to be examined, a few weeks before the day of examination).

- (g) Instrumentation.—A knowledge of the compass and capabilities of all instruments in the modern orchestra, and the scoring of a given passage in a given time, also the reading at sight of a short excerpt from an easy score of an early work of Mozart or Beethoven.
- (h) Chief and Second practical study (or in lieu of both of these a composition can be sent in by the candidate containing 4 part chorus, a solo or duet, an unaccompanied quartette and a 4 part Fugue), the whole scored for stringed instruments with independent accompaniment.

Graduates in Music of other universities can be admitted to an *ad eundem* degree in Music of this University on payment of the necessary fees, if they are intending to proceed to the McGill degree of Mus. Doc.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MUSIC.

Bachelors of Music of McGill University, after the lapse of a period of three years from the time of taking the degree of Bachelor of Music, may proceed to the degree of Doctor of Music, the requirement for which is a composition in extended form, such as an oratorio, opera or cantata. This exercise must have as its first number an introductory orchestral movement in the usual concert-overture form, and must contain eight-part writing and fugal treatment. It must be scored for a full orchestra. This original and unaided composition, if approved of, may be publicly performed by the candidate in the University or some other fit and proper place, at the discretion of the University. In addition, an examination in the higher forms of composition shall be necessary, together with a crtical knowledge of the full scores of certain prescribed works.

Further particulars with regard to degrees and diplomas in Music, as well as those relating to local examinations, not included in the above, will be found in the special Music Syllabus obtainable on application to the secretary of the McGill University Conservatorium of Music, Montreal.

# REGISTER OF STUDENTS

### FIRST YEAR ARTS.

Abercrombie, William T., Central Park, Abernethy, Jean B., Eburne Station, B. C. Abernethy, Jean B., Eburne Station, B. C.
Adams, Robert F., Fahan, Londonderry, Ireland.
Allen, Gordon C., Vancouver.
Anderson, John A., Vancouver.
Bagley, Ralph F., Vancouver.
Bayly, Milton D., Chilliwack, B. C.
Bennett, James L., North Vancouver.
Berto, John C., Vancouver.
Bisett, Vera M., Vancouver.
Bisett, Vera M., Vancouver.
Bryson, Roswell A., Vancouver.
Bryson, Roswell A., Vancouver.
Buchanan, John M., Steveston, B. C.
Buckerfield, Katherine E., Vancouver.
Campbell, Fred. E., Vancouver.
Celle, Peter T. D., Ladysmith, B. C.
Coughlan, Mary, Vernon, B. C.
Dawe, Ernest L., New Westminster, de Pencier, Theodore F. W., Vancouver. ver.
Doell, Rayman, Rossland, B. C.
Evans, Elmer, Vancouver.
Fisher, A. Marion, Vancouver.
Fleishmann, Daisy, Vancouver.
Ford, Maxwell, Central Park, B. C.
Fraser, Geo. Lovat, North Vancouver.
Galbraith, Samuel T., Belfast, Ireland.
Gilbert, Mary E., Vancouver.
Gilley, Helen F., New Westminster,
Gray, William J., Vancouver.
Hagelstein. Herman W., Murrayville, ver. Hagelstein, Herman W., Murrayville, Hill, Annie G., Vancouver. Hodgins, Francis J., Chilliwack, B. C. Hope, Clifford S., Vancouver. Hope, Clifford S., Vancouver.
Jackson, Arnold, Juneau, Alaska.
Jackson, Lorne, Vancouver.
Johannson, Joseph S., Vancouver.
Laidlaw, Kathleen N., Vancouver.
Lawson, Duncan M., Hollyburn, B. C.
Lee, Annie W., Vancouver.
MacLennan, Niel K. F., Nanaimo, B.C.
Manzer, Howard L., Silverdale, B. C.
Mathers, Fred. D., Vancouver, B. C.
Maynard, Margaret E., Vancouver.
McAlonen, Eva G., Vancouver, B. C.
McArthur, Helen M., Vancouver.
McCallum, Daisy J., Vancouver.

McCrimmon, May D., Vancouver. McLelan, Allan G. W., Vancouver. McLellan, Willard G., Vancouver. McNaught, Robert D., Ayr, Scotland. McNaught, Irene Isabella, Vancouver. McNeill, Irene Isabella, Vancouver.
McTavish, Alexander M., Vancouver.
McTavish, Janet L. E., Vancouver.
Mellish, Winnifred E., Vancouver.
Miller, Arthur H., Vancouver.
Miller, Clive, Vancouver.
Moore, Guy B., Vancouver.
Morrison, Loyle A., Vancouver.
Moscrop, Ethel, Vancouver.
Mounce, Marion J., Vancouver.
Muddell, Vera E., Vancouver.
Murro, Alexander Jr., Vancouver.
Mutrie, Margaret K., Vancouver.
Orr. Olive M., Chilliwack, B. C. Munro, Alexander Jr., Vancouver. Mutrie, Margaret K., Vancouver. Orr, Olive M., Chilliwack, B. C. Parker, George W., Vancouver. Paton, Thomas S., Ayr, Scotland. Peck, Dorothy E., Vancouver. Peck, Kathleen M., Vancouver. Peck, Kathleen M., Vancouver. Rae, Douglas H., North Vancouver. Rae, Ida A., Steveston, B. C. Risk, Maggie H., Vancouver. Robinson, Aurelia, Janes Road, B. C. Rosebrugh, Josie P., Vancouver. Russell, John, Union Bay, B. C. Ryan, Clarence A., Vancouver. Sclater, James L., Vancouver. Scott, Seaman M., Vancouver. Stewart, Annie G., Vancouver. Stewart, Charles C., Kerrisdale, B. C. Story, Evelyn S., Vancouver. Svenceski, Louis S., Vancouver. Telford, Neil W., Vancouver. Third, John G., Vancouver. Thomson, Andrew B., Victoria, B. C. Timmins Clifford F. Vancouver Thomson, Andrew B., Victoria, B. C. Thomson, Andrew B., Victoria, B. C. Tinmins, Clifford E., Vancouver. Todhunter, Jessie F., Vancouver. Traves, Edmund C., New Westminster Tupper, Charles, Vancouver. White, Helen M., Vancouver. Woods, Hazel K., Vancouver. Wight, Leroy C., Vancouver. York, Kenneth C., Vancouver. Young, George A., Kerrisdale, B. C.

### PARTIAL STUDENTS

Ballentine, Ellen M., Vancouver.
Cameron, William J. Glasgow, Scot.
Coates, Wells W., Vancouver.
Crute, Ebenezer, Vancouver.
Dustan, Alexander B., Vancouver.
Frampton, Geoffrey, Victoria, B. C.
Gordon, David J., Vancouver.
Hall, Amy Violet, Vancouver.
Hughes, Thomas M., Newton Abbott,
England.

MacDougall, James, Edinburgh, Scot.
McDowell, Hugh, Carrickfergus, Ire.
McKechnie, Eberts M., Vancouver.
McRae, Donald M., North Vancouver.
Smith, Lawrence B., Vancouver.
Thomson, Wesley C., Vancouver.
Torey, Henry E., Vancouver.
Wade, Henry R., Vancouver.
Wadkinshaw, Wingate R., Glasgow,
Scotland.

### SECOND YEAR ARTS

Anderson, Jessie J., Vancouver.
Berry, Edward W., Murrayville, B. C.
Blackberg, Ethel, Revelstoke, B. C.
Bunn, Raymond S., Vancouver.
Carruthers, Bertha M., Vancouver.
Creery, Ronald H., Vancouver.
Creery, Ronald H., Vancouver.
Dawies-Moore, Fritz, Vancouver.
Dawe, William A., Vancouver.
DesBrisay, Merrill, Vancouver.
Dick, Agnes J., Nanaimo, B. C.
Duncan, Robert G., Sandwick, B. C.
Fountain, Sarah A., Vancouver.
Fiame, Eleanor M., Vancouver.
Fiame, Eleanor M., Vancouver.
Gibson, Henry J., Vancouver.
Gibson, Henry J., Vancouver.
Greggor, Agnes A., Vancouver.
Hatch, Elizabeth A., Vancouver.
Hatch, M. Charles, Vancouver.
Hatch, M. Charles, Vancouver.
Hatwe, Zella C., Vancouver.
Hutcherson, Winifred E., Vancouver.
Lane, Laura, New Westminster, B. C.
Le Messurier, Ernest, Vancouver.

Lett, Sherwood, Vancouver.
Lewis, Vera M., Vancouver.
Lipsett, Evelyn B., Vancouver.
Macleod, Jean M., Vancouver.
MacMillian, Isabel G., Vancouver.
Maxwell, William F., Vancouver.
Miller, Roland M., New Westminster,
Mounce, Irene, Vancouver.
Mulhern, John E., Vancouver.
Mulnern, John E., Vancouver.
Robertson, Thomas J., East Delta.
Scott, Gordon W., Vancouver.
Sexsmith, Franklin B., Vancouver.
Shaw, Hazel J., Vancouver.
Smith, David A., Dundee, Scotland.
Southcott, James P. C., Vancouver.
Taylor, Edna M., Vancouver.
Thompson, Clausen A., Vancouver.
Uchida, Tose, Vancouver.
Walsh, Harold E., Vancouver.
Warne, Ferne, Vancouver.
Warne, Ferne, Vancouver.
Wells, James G., Saskatoon, Sask.
Wilson, William C., Vancouver.

### GRADUATE STUDENTS

Forster, David S., B. A., Vancouver. Kirkpatrick, Earl, A. B., B. A., Vancouver.

#### PARTIAL STUDENTS

Goodman, William E. H. G., London, England.
McGookin, John, Ballymena, Ireland.
Rae, Hugh McConnell, Ayr, Scotland.

Sproule, Walter K., Vancouver. Wallace, Bryce H., Vancouver. Wells, Charles G. P., Hants, England.

### THIRD YEAR ARTS

Beveridge, William W., Vancouver. Bollert, Lillian G., Vancouver. Brockwell, Muriel A., Vancouver. Cameron, Ella G., Vancouver. Craig, Gordon, Vancouver. Duncan, Charles, Sandwick, B. C. Dunton, Marjorie M., Vancouver. Elliott, Carrie I., Vancouver. Elliott, Carrie I., Vancouver. Gilchrist, Neil C., Vancouver. Kemp, William N., Vancouver.

Luckraft, Lawrence C., Halifax, Eng. Macdonald, Lennie H., Vancouver. McCreery, Paul L., Vancouver. Miller, Grace W., Vancouver. Miller, Grace W., Vancouver. Mills, Lennox A., Newton, Edward H., Vancouver. Pim, Laura M., Vancouver. Pim, Laura M., Vancouver. White, Laura M., Vancouver. Wilson, Mary L., Vancouver.

### PARTIAL STUDENTS

Buck, Frank H., Vancouver.

I Grant, Angus M., Glasgow, Scotland.

### SECOND YEAR SCIENCE

Beverly, Ira W., Rossland.
Cameron, Hamish J., North Vancouver.
Crcery, Kenneth A., Vancouver.
Creighton, Charles P., New Westminster.
Duchesnay, de St. Denis, Vancouver.
Eckardt, Harold A., Vancouver.
Howell, Benjamin H., North Vancouver.
McNeill, Donald L., Vancouver.

Plummer, Stephen B., Vancouver.
Reid, John H., Grand Forks.
Richardson, Francis N., Penticton.
Smithson, Hillerie W., Vancouver.
Taylor, Arthur, Vancouver.
Waddington, George W., Nanaimo.
Whitaker, Ronald R., New Westminster.
White, Edward M., Vancouver.
Whyte, Sydney, Vancouver.
Wright, Douglas A., Jubillee Station.

#### PARTIAL STUDENTS

Carnsew, Charles N. T., Vancouver. Honeyman, Pharic D., Kerrisdale. Gordon, Alva M., Vancouver. Taylor, Frederic G., Victoria.

### FIRST YEAR SCIENCE

Anderson, Claude W., Vancouver.
Clement, Carleton M., Vancouver.
Creery, Cuthbert J., Vancouver.
Drury, Eric W., Victoria.
Fraser, George Lyall, Vancouver.
Galloway, James R., Vancouver.
Hardie, Charles M., Esquimalt.
Helme, Harold, Vancouver.
Hoult, John H., New Westminster.
Ingersoll, John N., Ottawa, Ontario.
Lambert, Noel D., Vancouver.
Letson, Harry F. G., Vancouver.
Lord, Ernest E., Vancouver.
Lord, Ernest E., Vancouver.
MacMillan, Glen A., North Vancouver.
McGowan, Thomas H., Vancouver.
Mitchell, Robert J., Vancouver.

Morrison, Albert H., Vancouver.
Nicholson, Cuthber N., Vancouver.
Payne, Wilfrid R., Kerrisdale.
Pearcy, Charles W., Vancouver.
Pim, Edgar H., Vancouver.
Powell, Harold M., Collingwood, E.
Rand, Edwin A., New Westminster.
Samuel, Cecil V., London, Eng.
Scott, William O. C., Vancouver.
Smith, Robert R., Oakalla.
Stone, Clifford E., Vancouver.
Todrick, Robert A., Central Park.
Wade, Howard R., Vancouver.
Watts, Harold N., Vancouver.
Weart, J. Foss, Central Park.
Wright, Charles A., Vancouver.

## PARTIAL STUDENTS

Cameron, Ian M., Kelowna, B. C. Godfrey, Edward A. C., Vancouver. Davies, Joseph W., South Vancouver. Powell, Harold M., Collingwood, East.

# REGISTER OF VICTORIA STUDENTS. FIRST YEAR ARTS

Archibald, Laura M.
Armstrong, Clara M.
kallantyne, Hazel S.
Bunt, Heber
Clark, Harry M.
Drader, Cecil R.
Flitton, Charles N.
Floyd, Claude H.
Fort, Edward D.
Francis, Henry G.
French, Charles M.
Geoghegan, Dorothy R. Geoghegan, Dorothy R. Gordon, Eric V. Greenwood, Bessie Hardwick, Margaret S. Hisky, Dorothea J. Hume, Rubie M. Humpheys Cecil I. Humphreys, Cecil J.

Jackson, Ella J. Jones, Rose Kerr, Forrest A. Kinnaird, Marion P. Lee, Clarence E. Lyons, Norman Mennie, John H. McIlvride, Robert Morgan, Theodore H. Pauly, Gabrielle Y.
Pollock, Thressa A.
Pottinger, James M.
Shearman, Eustace R.
Simpson, Donald D.
Spaulding, Marjorie S. Terry, Ilace Wallis, Preston R. M. Watson, Violet

### PARTIAL STUDENTS.

Beattie, Mildred R. Burrell, Dorothy G. Gordon, Ina H. Halliday, Kathleen C. Harman, Muriel C.

Hastie, Marion B. Scott, Anna G. Wilson, Conrad Yuill, Lionel S.

### SECOND YEAR ARTS.

Emery, Claude E. Harman, Violet A. Richards, Edgar C.

Smith, Lenora M. Stevenson, John C. Stewart, Margaret F.

# McGILL UNIVERSITY EXAMINATION RESULTS

# PASSED THE THIRD YEAR EXAMINATIONS FOR COURSE LEADING TO B. A.

(Arranged in alphabetical order)

Beveridge; Brockwell; Cameron; Duncan; Elliott; Gilchrist; Kemp; Luckraft; McNeill; Miller; Mills; Newton (s); Smith; White; Wilson.

### STANDING IN THE SEVERAL SUBJECTS.

### Third Year.

English Composition: Class I.—Mills; Duncan. Class II.—Luckraft and Smith, equal; Gilchrist and White, equal; Craig; Bollert; Beveridge and Kemp and Macdonald, equal; Newton. Class III.—Elliott; Ewin and Grant, equal; McNeill; Wilson; Brockwell; Miller and Pim, equal; Dunton; Cameron; McCreery.

English Literature Drama: Class I.—Mills; White. Class II.—Smith; Brockwell; Duncan; Bollert. Class III.—Elliott and Gilchrist, equal; Kemp and Macdonald, equal; Pim; Wilson; Ewin; Miller; Beveridge and Craig, equal; McNeill and Grant, equal; Cameron; McCreery.

Prose: Class I.—Mills; Class II.—White; Duncan and Smith, equal; Class III.—Kemp; Elliott; Bollert and Miller, equal; Pim; McNeill; Craig; Gilchrist; Macdonald and Ewin, equal; Brockwell; Grant; Beveridge and Cameron and Wilson, equal.

Analytical Geometry: Class I.—None. Class II.—McNeill. Class III.—McCreery.

Calculus: Class I.-None. Class II.-McNeill. Class III.-McCreery.

Physics: Class I.—White; Pim; Duncan. Class II.—Ewin and Kemp, equal; Beveridge. Class III.—McNeill; Brockwell and Smith, equal; Cameron; Bollert; Miller; Dunton; Elliott.

Physics Laboratory: Class I.—White; Elliott; Ewin; Pim; Smith; Miller. Class II.—Brockwell and Kemp, equal; Bollert; Cameron; Dunton and McNeill, equal; Macdonald and Beveridge, equal; Duncan.

French: Class I.—None. Class II.—White. Class III.—Smith; Dunton; Cameron; Elliott.

Greek: Class I.-Mills. Class II.-Buck; Luckraft; Class III.-Grant.

Latin: Class I.—Mills. Class II.—Duncan; Newton; Luckraft. Class III.—Dunton; Wilson; Gilchrist; Craig.

Ethics. Class I.—None. Class II.—Luckraft; Bollert; Gilchrist; Kemp. Class III.—Miller; Beveridge and Brockwell, equal; Newton; Wilson; Grant; Craig; Ewin and Pim, equal.

### SECOND YEAR ARTS

Passed the Second Year Examinations for Course Leading to B. A.

(Arranged in order of merit)

Class I.—Taylor, \*Stevenson, Berry, Mounce; Class II.—\*Emery, Bunn, Dawe, Creery, \*Smith, L. M., \*Richards (s), Dick, Mulhern, Lipsett; Class III.—Gibson, H. J., Smith, D. A., Munro (s), Thompson, Le Messurier, Des Brisay (s), Chapin and \*Harman, equal; Fountain, Lett (s), Anderson (s) and Warne, equal; Gibson, H. A., Miller, Macleod (s), Gibson, T. I. (s), Maxwell, Carruthers (s) and Wilson (s), equal; Hatch, M. C., Walsh (s), MacMillan (s), Robertson, Southcott, Uchida (s).

(s) Supplemental in one subject.

<sup>\*</sup> McGill University College of B. C., Victoria.

### STANDING IN THE SEVERAL SUBJECTS

English Composition: Class I.—Wallace; Mounce; Berry; Taylor; Rae; \*Emery and \*Stevenson, equal. Class II.—Smith, D. A.; \*Smith, L. M.; Hawe and Scott, equal; Thompson; Lett; Bunn and Dick, equal; Dawe and Miller and Mulhern, equal; Macleod and Carruthers and Des Brisay, equal. Class III.—Chapin and Lewis, equal; Creery, Le Messurier and Goodman, equal; Lipsett; Hatch, M. C. and \*Richards, equal; Munro and Wilson, equal; Wells, C. G. and Sexsmith, equal; Frame and Duncan and Maxwell and Shaw, equal; MacMillan; Blackberg; Gibson, H. A. and Anderson; Gibson, T. I. and Robertson and Uchida, equal; Fountain and Greggor, equal; Hutcherson and Lane and Southcott, equal; Warne; Lawrence; \*Harman and Gibson, H. J. and Hatch, E., equal.

English Literature: Class I.—Taylor; Hawe; \*Emery; Mounce and Berry, equal. Class II.—Smith, D. A.; Mulhern; Dick; Wallace; Lett; \*Stevenson; Rae; Scott; \*Harman and Lewis and Munro and \*Smith, L. M., equal; Macleod. Class III.—Bunn; Creery; Dawe; MacMillan and Goodman and Des Brisay, equal; Gibson, H. J. and Le Messurier, equal; Frame, Anderson and Chapin and Lipsett, equal; Warne and Maxwell, equal; Lane and Duncan and Southcott and Shaw, equal; Uchida; Carruthers; Hutcherson; Thompson and Gibson, T. I., equal; Greggor; Fountain and Gibson, H. A., equal; Robertson and Sexsmith, equal; Hatch, M. C.

Chemistry: Class I.—Taylor; Berry. Class II.—\*Emery; Bunn and \*Smith, L. M., equal. Class III.—Dick; Gibson, H. A.; Gibson, H. J.; Maxwell and \*Harman, equal; Warne; Chapin and Southcott and Walsh, equal; Lett; Wilson; Mulhern; Gibson, T. I.

Chemistry Laboratory: Class I.—Taylor; \*Emery; Gibson; H. A. F.; \*Harman; Class II.—Dick, Berry and Chapin and Gibson, T. I., equal; Wilson; Mulhern and Uchida, equal; Maxwell and Shaw and \*Smith, L. M., and Walsh, equal; Warne and Wells, equal; Bunn and Gibson, H. J., equal; Lawrence; Lett. Class III.—Blackberg and Macleod and Scott and Southcott, equal; Munro.

French: Class I.—Taylor; \*Stevenson. Class II.—\*Emery; Creery; Mounce; Munro; Lipsett. Class III.—Anderson; Dick; \*Richards and \*Smith, L. M., and Thompson, equal; Mulhern; Chapin and LeMessurier, equal; Gibson, H. A. F.; Fountain; Robertson; Uchida; Miller and Warne and DesBrisay, equal; \*Harman and Hatch, M. C., and Lewis.

German: Class I.-None. Class II.-Lipsett. Class III.-Carruthers.

Greek: Class I.—Dawe. Class II.—Gibson, H. J. Class III.—Smith, D. A., and Wallace, equal; Rae.

Latin: Class I.—Taylor; \*Stevenson; Mounce: Berry and \*Emery, equal; Bunn; Dawe; Mulhern and \*Smith, L. M. Class II.—\*Richards; Gibson, H. J.; Munro; Fountain; Creery; Warne; Dick; Gibson, T. I. Class III.—Lipsett; Duncan; Chapin and \*Harman and Robertson, equal; Des Brisay; Lawrence and Le Messurier and Thompson and Wilson, equal; Hatch, M. C.; MacMillan and Scott and Wallace, equal; Walsh; Lane and Smith, equal; Gibson, H. A. and Hatch, E. A., equal; Anderson and Maxwell, equal; Blackberg and Carruthers, equal; Lett; Hutcherson and Macleod, equal; Miller and Shaw, equal; Lewis and Sexsmith, equal; Southcott.

Algebra: Class I.—\*Stevenson; \*Richards. Class II.—None. Class III.— Hatch, M. C.; Greggor; Fountain; Wilson; Miller.

Geometry: Class I.—\*Stevenson; \*Richards. Class II.—Miller. Class III.—Fountain; Greggor and Hatch, M. C., equal; Wilson.

Psychology: Class I.—Forster; Berry; Bunn; Mounce; Creery. Class II.—Des Brisay; Dawe and Scott, equal; Le Messurier and Miller, equal; Macleod. Class III.—Wallace; Thompson; Lett; Gibson and Rae, equal; Walsh; Kirkpatrick; Smith, D. A.; Duncan and Greggor and MacMillan, equal; Maxwell; Anderson and Robertson and Southcott and Sexsmith, equal; Hawe; Lewis; Lawrence; Frame.

Logic: Class I.—Forster; Berry; Bunn. Class II.—Mounce; Creery. Class III.—Dawe; Thompson; Kirkpatrick and Miller, equal; Anderson and Des Brisay, equal; Le Messurier; Scott; Greggor and Rae, equal; Walsh; Wallace; Smith, D. A.: Maxwell; Southcott; Blackberg and Lane and Macleod and Mac-Millan and Robertson and Sexsmith, equal.

\* McGill University College of B. C., Victoria.

## PASSED THE FIRST YEAR EXAMINATIONS FOR COURSE LEADING TO B. A.

(Arranged in orer of merit)

Class I.— "Mennie; "Gordon, Eric; "Morgan; Orr and Peck, equal; Johannson. Class II.— Jackson; "Hardwick and Mounce, equal; Baker and Story, equal; Thomson, A. B. (s); "Pollock; Russell; "Greenwood; "Hume; "Pauly; Bayly and Suggitt, equal; Risk; Galbraith; "Lee (s); Smeeton; Maynard; Buchanan and "French, equal; Manzer (s); Doell and "Flitton (s), equal; "Hickey, "Armstrong; "Beattie; Gilbert (s). Class III.— de Pencier and White, equal; Coates (s); "Drader and Todhunter, equal; "Kerr (s); Mellish; Mathers; Celle; "Ballantyne; Reid; Powell (s); Abernethy; Muddell (s); Rae; Fraser and "Jones, equal. Abercrombie; Berto; Adams (s); Fisher (s) and "Geoghegan, "Qual; Miller, C., (s); "McIlvride and Wright (s), equal; Lawson (s); Scott (s); Stewart, A. G.; Lee, A. W., (s); Hagelstein (s); Jackson, A. (s) and Jackson, L., equal; Rosebrugh (s); McNeill (s) and "Watson; "Archibald (s) and McCrimmon (s) and Moscrop (s), equal; York (s); Fleishman (s); Hope (s) and McTavish, equal; Young (s); "Kinnaird (s) and McLellan, W. G. (s), equal; Ford (s); Miller, A. H. (s); Laidlaw (s) and Peck, D. (s), equal; Third (s) and Tupper (s), equal; Paton (s); Robinson (s); Frampton; "Halliday; Thomson, (s) Supplemental in one subject.

(s) Supplemental in one subject.

# STANDING IN THE SEVERAL SUBJECTS

English (Literature, Composition, History): Class I.—Baker and "Gordon, E., and "Mennie, equal; Peck, K.; Bayly and "Lee, equal; Galbraith and "Morgan and Thomson, A. B., equal. Class II.—Johannson and Todhunter, equal; "Pollock and Story, equal; Mounce; "Jackson; Campbell; "Hardwick and Lee and Orr, equal; "Pauly and Tory and White, equal; Powell and Smeeton, equal; Buchanan and Reid, equal; Adams and "Geoghegan and Laidlaw and Suggitt, equal; "Hume and MacDougall and Manzer and Muddell and Risk, equal; Celle and Fisher and Scott, equal; "Gerenwood and Walkinshaw, equal. Class III.—Coates and Crute; McLellan, W., and Moscrop and Robinson and "Shearman and Wright, equal; "Armstrong and "Bunt and "Jones and McDowell, equal; Jackson, A., and Mathers; Abercrombie and de Pencier and "French, and Maynard and McCrimmon and "McIlvride and "Scott, equal; Fraser and Hagelstein and Paton and Rae, equal; Bissett and Buckerfield and "Drader and Hill and Mellish and Rosebrugh and Stewart, A. G., and "Watson, equal; Ballentine and MacLennan and McAlomen and Morrison and "Wilson, equal; Abernethy and Jackson, L. and "Kerr and Russell, equal; Fraser and McTavish, J., equal; McArthur and Mutrie and Woods, equal; "Ballantyne; Doell and Peck, D., and Tupper and York, equal; Berto and Hope and "Kinnaird, equal; "Archibald and Miller, A. H., equal; "Francis; Anderson.

Passed in Composition: Class I.—None. Class II.—Bagley; Lawson and Miller, C., equal; Munro, Burnett. Class III.—Cameron and Smith, equal; "Flitton and Stewart, C., equal; Hodgins and McCallum and McLelan, A., and McNeill and Moore, equal; Fleishman and Rees, equal; Dustan; McNaught; Evans; Third; Young; Gray and Telford, equal; Sclater; "Pottinger; Bennett; "Clark and "Hay, equal; Hughes; Hastie and "Terry and Timmins, equal; \*Stewart.

Passed in History: Class I.—None. Class II.—Gilbert. Class III.—\*Flitton; McNaught; \*Pottinger and \*Simpson, equal; Bagley and \*Terry, equal; \*Clark and Miller, C., equal; Young; \*Hay and \*Gordon, J. H. \*Wallis; Dawe and Evans, equal.

Passed in Literature: Class I.—None. Class II.—None. Class III.—McNeill; Burnett; Dawe and Third, equal; Cameron and Hodgins, equal; Frampton and McCallum and Rees, equal; Fleishman; Moore and Timmins, equal; Trembath.

French: Class I.—\*Pauly; \*Mennie; \*Gordon; \*Jackson; \*Hardwick and \*Morgan, equal; \*Burrell, and \*Greenwood and \*Lee and \*Pollock, equal. Class II.—Mounce and Story, equal; \*Hume and Pack, K., and Risk, equal; \*Armstrong; \*Wilson; \*Flitton; Orr; Berto and \*Humphreys and Mellish, equal; Abercrombie and Baker and Russell and Scott, equal; Suggitt; McNeill and \*Scott and White, equal. Class III.—\*Ballantyne and Rae and Stewart, A., equal; \*Hickey; Fisher; \*Geoghegan and Gilbert and McCrimmon and Todhunter, equal; Fleishman; Doell and Miller, C., and \*Simpson, equal; Buchanan

<sup>\*</sup> McGill University College of B. C., Vlctoria.

and Coates and \*French and Jackson, A., and Maynard, equal; \*Archibald and \*Jones and \*Kerr and Mathers and Moscrop and Muddell, equal; Abernethy and Bayly and Evans and McCallum, equal; Celle and \*McIlvride and Reid and Wright, equal; Fraser and McTavish, equal; Tupper; Burnett and Ford and Lawson and Third and Thomson, A., and York, equal; \*Floyd and \*Francis and Jackson, L., and Lee and Torey and \*Watson, equal; Miller, A., and Peck, D., and Stewart, C., equal; McLellan, W. G., and Rosebrugh, equal; Laidlaw and Mutrie, W. G., and \*Terry, equal; Hill and Hastie and MacDougall, equal; \*Drader and Robinson, equal; \*Kinnaird and Thomson, W., equal.

German (Beginners'): Class I.—Risk; Fleishmann and Gilbert and Muddell and Peck, equal. Class II.—Manzer; Hagelstein; Smeeton. Class III.—MacLennan; Gray.

Greek (Beginners'): Class I.—None. Class II.—Gordon. Class III.—de Pencier; Adams; Walkinshaw; Dustan; McDowell.

Greek: Class I.—Johannson. Class II.—Galbraith; Powell. Class III.— Smeeton; Frampton; MacLennan; Young; Cameron; Munro; McAlonen; Paton.

Smeeton; Frampton; MacLennan; Young; Cameron; Munro; McAlonen; Paton.

Latin: Class I.—\*Gordon, E.; \*Morgan; \*Mennie; Johannson; Russell; \*Jackson; Mounce and Story, equal; \*Hardwick; \*Beattie and \*Hume and Orr, equal; Baker. Class II.—\*Greenwood; Bayly and \*Burrell and Maynard, equal; Peck, K.; \*French and Galbraith and \*Pauly, equal; Hall, A., and \*Lee and Suggitt and Thomson, A., equal; Berto and \*Halliday and \*Pollock, equal; Scott; \*Archibald and \*Ballantyne and \*Flitton and \*Hlickey, equal; Doell; Buchanan and White, equal; Powell; Risk and Smeeton, equal; Celle and Fraser and Reid and Stewart, A., equal; \*Armstrong and Jackson, L., and Manzer and Torey, equal. Class III.—Abercrombie and \*Kerr and Todhunter, equal; Frampton and \*Jones and Wright, equal; \*Bunt and \*Drader and McCallum and Peck, D., and Rae and York and \*Watson, equal; \*Kinnaird and Lawson, equal; \*Francis and \*Geoghegan and MacLennan and \*McIlvride and Mellish and Miller, equal; \*Clark and Fisher and Hope and \*Simpson, equal; Abernethy and Adams and Coates and de Pencier, equal; Tupper; Miller, A., and Moscrop and Muddel and \*Pottinger and \*Scott, equal; Cameron and Thomson, W., equal; Evans and \*Floyd, equal; Ford and Gilbert and McNeill and McTavish and Mutrie and Rosebrugh, equal; Jackson, A., and Lee and Young, equal; Campbell and McCrimmon and \*Terry, equal; Bennett and Hagelstein and Hodgins and Laidlaw and Robinson and Stewart, C., equal; Fleishman and Mathers and McLellan, W. G., equal; Bissett and McAlonen, equal; Paton and Third, equal.

### MATHEMATICS.

MATHEMATICS.

Algebra: Class I.—\*Mennie and Orr, equal; \*Morgan; \*Beattie; Hall and Thomson, A. B., equal; \*Bunt; Baker and \*Jackson, equal; \*Hardwick; \*French; \*Kerr and Mounce and \*Wilson, equal; \*Gordon, E.; \*Hume; Suggitt; \*Greenwood. Class II.—Russell; Bayly; Doell and Maynard and \*Pauly, equal; \*Hickey; \*Burrell and \*Humphreys and Manzer, equal; de Pencier and \*Flitton and Fraser and Peck, K., equal; Miller, C.; \*Drader and \*Pollock, equal; Abernethy; Rae; \*Armstrong and Buchanan and Rosebrugh, equal. Class III.—Story; \*Ballantyne and Kinnaird and Mellish, equal; Todhunter: Dawe and Mathers, equal; Coates and \*Halliday and White, equal; Campbell and Fisher and Thomson, W. C., equal; \*Harman; Johannson; \*Hastie and Jackson, L., and McNeill, equal; Adams and Celle and Morrison, equal; Berto and \*Geoghegan and \*Hay and Moscrop and Rees and \*Wallis, equal; \*Jones and McAlonen and McLlelan, A. G., and McTavish and \*Terry, equal; Reid and Smeeton, equal; McCrimmon and \*McIlvride, equal; \*Clark and Galbraith and Hill and Risk and Stewart, A., equal; \*Watson; Abercrombie and Bagley and Hope and Lee and McDougall and Paton and Wright and Young, equal. \*Jackson; \*Hardwick; \*Geometry: Class I.—\*Drader and \*Mennie equal; \*Jackson; \*Hardwick; \*Pardwick; \*Pardwick

Geometry: Class I.—\*Drader and \*Mennie, equal; \*Jackson: \*Hardwick; \*Beattie and \*Hickey and \*Morgan, equal; \*French; \*Halliday; \*Fort; \*Burrell and \*Pollock, equal; \*Wilson; Doell and \*Hastie, equal; \*Flitton; \*Gordon, E., and \*Greenwood and \*Hume, equal; Orr and Thomson, A. B., equal; \*Armstrong and \*Gordon, I., equal; \*Humphreys; \*Kinnaird and Mathers, equal; \*Harman and \*Lee, equal; \*Ballantyne and \*Bunt, equal. Class II.—Suggitt; \*Clark and \*Kerr, equal; \*Hay; \*Watson; Peck, K., and Story, equal; \*Mc-Ilvride; Abernethy; Celle and de Pencier and Reid; \*Archibald and Buchanan and Dawe and Mounce and \*Pauly, equal; Fisher and Lawson and \*Jones and Manzer, equal; Maynard and Russell and White, equal; \*Geophegan. Class III—Bayly and Gilbert, equal; Coates and Fleishmann and \*Floyd and Risk, equal; Hope and McArthur, equal; Mellish and Miller, C., equal; Moscrop and Rosebrugh and \*Simpson and Smeeton, equal; Baker and Jackson, L., and Miller, A. H., equal; Ford and McCrimmon, equal; Morrison and Wright, equal; Berto and McNeill University Cellege of R. C. Victoria.

<sup>\*</sup> McGill University College of B. C., Victoria.

\*Wallis, equal; Jackson, A., and Laidlaw and McLelan, A., and Tupper and Young, equal; Evans and MacDougall and McDowell, equal; Johannson and Lee and McAlonen and Powell, equal; Crute and Sclater and Third, equal; Anderson and \*Francis, equal; Bryson and Gordon, D. J., and Hagelstein and \*Terry, equal; Campbell and Fraser and Gray and McLellan, W., and Todhunter and Traves, equal; Mfinro and Peck, D., and Stewart, A. G., equal; McTavish, A. M.; Abercrombie and Dustan and Galbraith and McKechnie and Mutrie and \*Shearman and Telford, equal; Carruthers; Patterson.

Trigonometry: Class I.—\*Mennie; Thomson, A. B.; \*Morgan; \*Gordon, E.; \*Hickey; \*Beattie; \*Burrell and Orr, equal; \*Drader; \*French; \*Greenwood. Class II.—Baker and \*Hardwick and Johannson, equal; \*Pauly; \*Pollock; Bayly; Russell; \*Hume and Mounce, equal; \*Ballantyne; \*Filtton; \*Jackson, Bunt and Coates, equal; Hall and \*Kerr and Mathers and \*Wilson, equal. Class III.—\*Armstrong; Celle and Manzer and Mellish and Suggitt and Thomson, W. C., equal; Story; Jackson, A.; \*Jones; Fraser and \*Geoghegan, equal; Adams and \*Humphreys, equal; Buchanan and Todhunter, equal; de Pencier and Miller, C., equal; Doell and \*Harman and Maynard and \*McIlvride, equal; \*Halliday and \*Watson, equal; Abernethy and \*Wallis, equal; Berto; Galbraith and Rae and Sclater and White, equal; Jackson, L., and Lawson and McLean, A., and Morrison and Young, equal; Abercrombie and Hagelstein, equal; McNeill and McTavish and Reid and Stewart, A., and \*Archibald and \*Terry, equal; O'Neill.

Tavish and Reid and Stewart, A., and \*Archibald and \*Terry, equal; O'Neill.

Physics: Class I.—\*Mennie; Orr and Peck, K., equal; Russell; \*Morgan; Story and Thomson, A. B., equal; Baker and Johannson, equal; Mathers; Doell; Coates and de Pencier and \*Gordon, E., and Mounce, equal. Class II.—Maynard; Buchanan and Smeeton, equal; Abernethy; Lawson; Suggitt; \*Drader and \*Wilson, equal; Campbell and \*Hardwick, equal; Jackson, E. J., and Mellish, equal; \*Kerr and Reid, equal; Bayly and \*Bunt and Hill and Powell, equal; McDowell and Rosebrugh and York, equal; Gilbert and McAlonen, equal; Celle; \*Flitton and Galbraith and Manzer; Miller, A. and \*Pollock, equal; Class III.—\*Hume and Morrison and Wright and Young, equal; Rae and Todhunter, equal; Risk; Bagley and Crute and Fraser and \*Greenwood and Lee and Miller, C., equal; Abercrombie and Adams and Hagelstein and \*Lee and Muddell, equal; Hope and \*Jones and McLelan, A. G., and White, equal; Rees; Jackson, A. and McLellan, W. G., equal; Fisher and \*French and \*McIlvride, equal; \*Armstrong and \*Ballantyne and \*Shearman and Ford, equal; \*Clark and Evans and \*Harman and Jackson, L. and Laidlaw and McArthur and Scott and Timmins, equal; Dawe and Third, equal; Dustan and Gray and Moscrop and Torey and McCrimmon, equal; Ballentine; Bennett and Berto and MacLennan and McNeill and \*Pauly, equal; \*Hickey; Bissett and Fleishmann and Paton and Woods, equal; Robinson; \*Simpson; McKechnie and \*Kinnaird, equal; \*Geoghegan and Tupper and Walkinshaw, equal; Dobson; Duncan; \*Stewart, M.

### APPLIED SCIENCE.

### Second Year

Second Year Science: Pass list in order of merit:—Reid; Wright; Whyte (s); Cameron and Waddington, equal; Creighton (s); Richardson (s); Beverly (s); E. M. White (s); Howell (s); Creery (s); Whitaker (s); McNeill (s); Eckardt (s).

Physics. Class I.—Reid, Wright, Whyte (S); Class II.—Beverley and Cameron, Richardson, Howell and Plummer, Creighton, Waddington, Watts, McNeill; Class III.—Eckhardt, Creery, Whitaker, White (E), Helme, Duchesnay, Smithson.

Physics Laboratory. Class I.—Whyte (S), Waddington, Reid and Wright, Richardson, Creighton and Howell; Class II.—Cameron, Beverley and Creery; Eckardt, White (E), Plummer, Whitaker and McNeill, Duchesnay, Taylor (A); Gordon; Class III.—Helme, Ingersoll, Watts, Smithson.

Mechanical Drawing. Class I.—None; Class II.—Whyte (S), Waddington and Watts, Creighton and White (E), Wright, Carnsew, Creery and Reid, Beverley and Cameron, Richardson and Helme and Ingersoll; Gordon, Howell and McNeill and Pearcy; Class III.—Duchesnay, Whitaker, Plummer, Eckhardt, Smithson, Taylor (A).

Summer Reading. Class I.—None; Class II.—Waddington, Richardson; Class III.—Whitaker, Creighton, Beverley, Creery and Gordon and Helme, Cameron and Reid and Whyte (E), and Taylor (A) and Whyte (S).

(s) To pass supplemental.

\*McGill University College of B. C., Victoria.

Surveying. Class I.—None; Class II.—Wright, Carnsew; Class III.—Waddington, Duchesnay and Reid, Cameron and Howell and Muir, White (E), Eckardt and Plummer and Taylor (A), McNeill and Whyte (S).

Field Surveying. Class I.—None; Class II.—Waddington and Wright and Smithson, Howell, Reid, Cameron and Richardson, Creery, Beverley; Class III.—White (E), Creighton and Eckardt and Whyte (S), Helme, Duchesnay, Gordon, McNeill, Whitaker, Plummer, Watts.

Shopwork. Class I.—None; Class II.—Creighton, White (E), Watts, Reid; Class III.—Howell and McNeill and Pearcy, Helme, Waddington, McGown, Cameron, Duchesnay and Wright, Beverly and Eckardt, Gordon and Whyte (S), Creery and Whitaker, Richardson, Plummer, Smithson and Taylor (A).

Chemistry. Class I.—None; Class II.—Reid; Class III.—Richardson, Wright, Carnsew, Waddington and Whyte (S), Creighton, Cameron and McNeill.

Chemistry Laboratory. Class I.—Reid, Beverly, Waddington, Whyte (S); Class II.—Creighton and Whight, White (E), Richardson, Howell, Cameron, Eckardt and Gordon and McNeill; Class III.—Creery, Whitaker, Duchesnay, Plummer.

Mechanics of Machines. Class I.—Reid; Class II.—Wright, Cameron, Whyte (S); Class III.—Creighton and Waddington, McNeill, Whitaker, Richardson, Howell, White (E), Creery and Plummer, Honeyman.

Calculus. Class I.—None; Class II.—Wright, Reid, Whyte (S); Class III.— Cameron, Whitaker, Waddington and Honeyman, Beverly, Creery and White (E).

Analytical Geometry. Class I.—Reid; Class II.—Whyte (S.), Wright, Whitaker; Class III.—Cemeron, Creery and Beverly, Taylor (A), Eckardt, Waddington and Carnsew and Honeyman, Smithson, White (E), McNeill, Creighton and Richardson, Muir.

Mechanics. Class I.—Reid and Wright; Class II.—Carnsew; Class III.—Cemeron and Whyte (S), Waddington, Howell, Beverly and Richardson, Creery and White (E), Taylor (A), Creighton and Whitaker.

Materials of Construction. Class I.—Creighton; Class II.—Reid, Wright, White (E), Cameron, Howell, Beverly; Class III.—Eckardt, McNeill, Plummer, Richardson and Whyte (S), Waddington, Creery and Gordon and Whitaker, Taylor (A).

Graphical Statics. Class I.—Carnsew and Richardson and Wright, Whyte (S); Class II.—White (E), Creighton and Howell and Reid, Cameron, Duchesnay and Waddington, Beverly, Plummer, Gordon; Class III.—Creery and Whitaker, Eckardt, McNeill, Taylor (A).

Mapping. Class I.—Wright; Class II.—Richardson, Creighton, White (E.); Class III.—Whyte (S.), Cameron and Waddington, Beverly and Howell, Eckhardt and McNeill, Taylor (A.), Gordon, Reid, Helme and Smithson, Watts and Whitaker, Creery and Duchesnay and Plummer.

### APPLIED SCIENCE.

### First Year.

First Year Science: Pass list in order of merit:—Stone; Payne; Clement; Drury; Wade; Wright; Lambert (s); Lord (s); Hardie (s); Galloway (s); Letson (s); Mitchell (s); MacMillan (s); Hoult (s); Smith (s). (s) To pass supplemental.

Freehand Drawing. Class I.—MacMillan, Drury, Hardie and Davies; Class II.—Lord, Clement, Stone and Hoult and Morrison, Fraser, Mitchell, Weart; Class III.—Powell, Wade, Galloway and Scott, Payne, Smith, Anderson, Wright, Todrick, Creery and Letson and Rand, Lambert and Pim.

Mechanical Drawing. Class I.—Davies, Clement and Drury, Lord, Stone; Class II.—Hardie, Scott, Morrison and Powell, MacMillan and Wade, Pim and Wright, Fraser, Creery and Payne and Mitchell, Letson and Weart; Class III.—Hoult, Lambert, Smith and Todrick, Rand, Anderson and Galloway.

Shopwork. Class I.—None. Class II.—Hardie, Pim, Drury and Morrison, Scott and Stone, Letson, Mitchell, Davies, Clement and Lambert; Class III.—Lord and Powell and Smith; Anderson, Hoult and MacMillan and Weart and Wright, Wade, Todrick, Payne, Fraser, Helme.

English. Class I.—Wade; Class II.—Letson, Stone, Smith and Wright, Payne and Weart, Lambert; Class III.—Davies, Pim, Lord and Mitchell, Clement and Drury and MacMillan and Rand, Powell, Hardie, Fraser, Hoult, Beverley.

Physics. Class I.—Galloway; Class II.—Payne, Stone, Lambert, Clement, Wade, Drury; Class III.—Creery, Letson, Hoult and McGown, Wright, Davies and Mitchell and Watts, Lord, Smith, Hardie and MacMillan.

Physics Laboratory. Class I.—Wade, Galloway, Hardie, Stone; Class II.—Drury, Clement, Letson, Payne, Lord and Mitchell, Davies, Creery, Anderson; Class III.—Scott and Todrick and Morrison, Wright, MacMillan, Powell, Pim, Fraser and Weart, Smith, Hoult and Lambert.

Mechanics. Class I.—Galloway, Clement; Class II.—Stone, Wade, Payne; Class III.—Letson, Wright, Davies and Mitchell, Lambert, Watts, Hardie, Drury, Anderson, Ingersoll and Livingstone and Wälker.

Descriptive Geometry. Class I.—Carnsew, Stone, Clement; Class II.—Drury, Creery, Payne; Class III.—Pearcy, Wade, Lord, Hoult, Hardie, Letson, Lambert and McGown and Wright.

Algebra. Class I.—Payne; Class II.—Stone, Wright, Drury, Clement; Passed—Watts, Lambert and Lord, Pearcy and Wade, Galloway and Hardie, Hoult, Helme, Mitchell, Letson, Smith, MacMillan and Ingersoll.

Geometry. Class I.—Payne, Clement; Class II.—Galloway, Wright, Stone and Richardson, Duchesnay; Class III.—Plummer and Whyte (S), MacMillan and Watts, Wade, McGown, Davies, Lord, Drury and Helme and Pearcy, Creery, Letson, Ingersoll and Mitchell, Anderson, Hardie and Smith, Livingstone.

Trigonometry. Class I.—None; Class II.—Lambert; Class III.—Creery, Wright, Wade, Drury and Stone, Clement, Payne, Helme, Lord, Pearcy, Mac-Millan, Galloway and McGown.

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