# CALENDAR

OF THE

# University

of

# British Columbia

## FOURTH SESSION

## 1918-19

VANCOUVER, BRITISH COLUMBIA

1918

NOTE—Since this volume of the Calendar was printed the following changes have taken place in the University Staff :—

Assistant Professor R. H. CLARK, M.A., Ph.D., to be Associate Professor of Chemistry. (*p.* 67).

Professor O. J. TODD, Ph.D., to be Assistant Professor of Classics in place of Associate Professor S. J. WILLIS, B.A. (*p.* 69).

Assistant Professor THEODORE H. BOGGS, M.A., to be Associate Professor of Economics, Sociology and Political Science. (*p.* 71).

Professor C. G. SEDGEWICK, Ph.D., to be Associate Professor of English. (*p.* 74).

T. C. HEBB, B.Sc., M.A. (Dal.), Ph.D. (Chicago), to be Associate Professor of Physics in place of J. G. DAVIDSON, B.A. (Tor.), Ph.D. (Cal.) (*p.* 11).

1918-19

# CALENDAR

OF THE

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of

# British Columbia

## FOURTH SESSION

## 1918-19

1918-19

VANCOUVER, BRITISH COLUMBIA
1918

TECHNICAL PRESS, LTD., PRINTERS
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1918

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# The University of British Columbia

## VISITOR.

SIR FRANK STILLMAN BARNARD, Lieutenant-Governor of British Columbia.

## CHANCELLOR

R. E. MCKECHNIE, ESQ., M.D., C.M.

## PRESIDENT

F. F. WESBROOK, ESQ., M.A., M.D., C.M., LL.D.

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ROBERT P. MCLENNAN, ESQ., Vancouver. Term expires 1921.
GEORGE H. BARNARD, ESQ., K.C.. M.P., Victoria. Term expires 1921.
EVELYN F. K. FARRIS, M.A., Victoria. Term expires 1923.
THE HON. DENNIS MURPHY, Vancouver. Term expires 1923

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The Superintendent of Education, ALEXANDER ROBINSON, ESQ., B.A., LL.D.
The Chancellor.
The President (Chairman).
(*b*). Dean of the Faculty of Agriculture, LEONARD S. KLINCK, M.S.A.
Dean of the Faculty of Applied Science, REGINALD W. BROCK, M.A., F.G.S., F.R.S.C.
Dean of the Faculty of Arts, G. E. ROBINSON, B.A.
Dean of the Faculty of Forestry.
Two Representatives of the Faculty of Agriculture, (to be elected in September, 1918).
Two Representatives of the Faculty of Applied Science, (to be elected in September, 1918).
Two Representatives of the Faculty of Arts (to be elected in September, 1918).
Representative of the Faculty of Forestry.

(*c*). Appointed by the Lieutenant-Governor in Council:—
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The Right Rev. A. U. DE PENCIER, D.D., Vancouver, B.C.
The Hon. D. M. EBERTS, K.C., Victoria, B.C.

(*d*). The Principal of Vancouver Normal School, WM. BURNS, ESQ., B.A.
The Principal of Victoria Normal School, D. L. MACLAURIN, ESQ., B.A.

(*e*). Representative of High School Principals, T. A. BROUGH, ESQ., B.A.

(*f*). Representative of Provincial Teachers' Institute.

(*g*). Representative of Affiliated Colleges.

(*h*). Elected by Convocation:—
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J. M. TURNBULL, Esq., B.A.Sc., Vancouver, B.C.

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REGINALD W. BROCK, M.A. (Queen's), F.G.S., F.R.S.C., Dean of the Faculty of Applied Science and Professor of Geology (absent on leave, overseas service)

THOS. PATTISON, M. A. (Glas.), Registrar.

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P. A. BOVING, Cand. Phil. (Malmo, Sweden), Cand. Agr. Alnarp Agric. (Sweden), Associate Professor of Agronomy.

**Department of Animal Husbandry.**

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J. E. HARPER, B.S.A. (Amherst, Mass.), M.S.A. (Ames, Iowa), Assistant Professor of Animal Husbandry.

**Department of Bacteriology.**

R. H. MULLIN, B.A., M.B. (Toronto), Head of the Department of Bacteriology.

**Department of Biology.**

ANDREW H. HUTCHINSON, M.A. (McMaster), Ph.D. (Chicago), Assistant Professor of Botany.

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ROBERT H. CLARK, M.A. (Tor.), Ph.D. (Leipzig), Associate Professor of Chemistry.

**Department of Civil Engineering.**

E. G. MATHESON, B.A.Sc. (McGill), M.Am.S.C.E., M.Can.S.C.E., Instructor in Civil Engineering

W. H. POWELL, B.Sc. (McGill), Special Field Instructor.

**Department of Classics**

L. F. ROBERTSON, M.A. (McGill), Associate Professor of Classics.

O. J. TODD, Pl.D. (Harv.), Assistant Professor of Classics.

H. T. LOGAN, B.A. (McGill and Oxon.), Instructor in Classics (absent on leave, overseas service).

**Department of Dairying.**

WILFRED SADLER, B.S.A. (Macdonald College), M. Sc. (McGill), N.D.D., British Dairy Institute, University College, Reading, England, Assistant Professor in Dairying.

**Department of Economics, Sociology, and Political Science.**

THEODORE H. BOGGS, B.A. (Acadia and Yale), M.A., Ph.D. (Yale), Associate Professor of Economics.

**Department of English.**

G. G. SEDGEWICK, B.A. (Dal), Ph.D. (Harv.), Associate Professor of English.

J. K. HENRY, B.A. (Dal.), Assistant Professor of English.

FREDERICK G. C. WOOD, B.A. (McGill), M.A. (Harvard), Assistant Professor of English.

**Department of Geology and Mineralogy.**

R. W. BROCK, M.A. (Queen's), F.R.S.C., Professor of Geology (absent on leave, overseas service).

EDWIN T. HODGE, M.A. (Minnesota), Ph.D. (Columbia), Assistant Professor of Geology.

**Department of History.**

MACK EASTMAN, B.A. (Tor.), Ph.D. (Columbia), Assistant Professor of History (absent on leave, overseas service).

**Department of Horticulture.**

F. M. CLEMENTS, B.S.A., (Guelph), Professor of Horticulture.

**Department of Mathematics.**

GEORGE E. ROBINSON, B.A. (Dal.), Associate Professor of Mathematics.

E. H. RUSSELL, B.A. (Queen's), Assistant Professor of Mathematics.

THOMAS PATTISON, M.A. (Glasgow), Assistant Professor of Mathematics.

E. E. JORDAN, M.A. (Dal.), Instructor in Mathematics (absent on leave, overseas service).

**Department of Mechanical Engineering.**

L. KILLAM, M.A. (Mt. Allison), B.Sc. (McGill), Assistant Professor of Mechanical Engineering.

G. A. BOOTH, B.S. (Col.), Instructor in Mechanical Engineering.

Demonstrators:
- H. Taylor.
- J. W. Faulkner.
- S. Northrop.
- F. McCrady.
- J. Goodwin.
- J. E. Dubberley.
- G. Bright.
- J. Crowley.

**Department of Military Training.**

(Canadian Officers' Training Corps.)

Names submitted and approved for commission, C.O.T.C.:—

To be Provisional Major—Captain F. F. Westbrook, 107th Regiment.

To be Captain—Captain E. E. Jordan, from McGill University College Contingent (absent on leave, overseas service).

To be Lieutenant—Lieutenant H. T. Logan, from McGill University College Contingent (absent on leave, overseas service).

Capt. R. A. M. D. Ramsay, 54th Battalion, Adjutant.

Lieut. H. Ashton, Canadian Active Militia.

Lieut. Paul A. Boving.

1918-19

**Department of Mining and Metallurgy.**

J. M. TURNBULL, B.A.Sc. (McGill), Professor of Mining and Metallurgy and Head of the Department.

**Department of Modern Languages.**

H. ASHTON, B.A. (Cantab.), Dès L. (Univ. Paris). D.Litt. (Birmingham), Officier de l'Instruction Publique (France), Associate Professor of French.

HENRI CHODAT, M.A. (McGill and Harvard), Assistant Professor of Modern Languages.

ISABEL MACINNES, M.A. (Queen's), Instructor in Modern Languages.

**Department of Philosophy.**

JAMES HENDERSON, M.A. (Glasgow), Assistant Professor of Philosophy,

**Department of Physics.**

J. G. DAVIDSON, B.A. (Tor.), Ph.D. (Cal.), Associate Professor of Physics.

T. C. HEBB, B.Sc., M.A. (Dal.), Ph.D. (Chicago), Assistant Professor of Physics.

P. H. ELLIOTT, M.Sc. (McGill), Instructor in Physics.

**Department of Poultry Husbandry.**

ALFRED G. LUNN, B.S.A. (Oregon Agricultural College), Associate Professor of Poultry Husbandry.

1918-19

## ACADEMIC YEAR, 1918-19.

| | |
|---|---|
| 1918<br>Monday, August 26th. | Supplemental Examinations in Applied Science begin. |
| Wednesday, August 28th. | Summer School in Surveying opens. |
| Monday, September 16th. | Supplemental Examinations in Arts begin.<br>Matriculation Examinations begin.<br>Registration begins. |
| Saturday, September 21st. | Last day for Registration. |
| Monday, September 23rd. | Meeting of the Faculty at 10 a.m. |
| Wednesday, September 25th. | Lectures begin. |
| Wednesday, October 9th. | Meeting of the Senate. |
| Wednesday, December 11th. | Meeting of the Senate. |
| Thursday, December 12th. | Last day of Lectures for Term. |
| Saturday, December 14th. | Examinations begin. |
| Friday, December 20th. | Examinations end. |
| Friday, December 27th. | Meeting of the Faculty at 10 a.m. |
| 1919<br>Monday, January 6th. | Second Term begins. |

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| | |
|---|---|
| Wednesday, February 12th. | Meeting of the Senate. |
| Friday, April 4th. | Last day of Lectures. |
| Wednesday, April 9th. | Sessional Examinations begin. |
| Saturday, April 26th. | Meeting of the Faculty at 10 a.m. |
| Wednesday, April 30th. | Meeting of the Senate. |
| Thursday, May 1st. | Congregation. |
| Monday, June 23rd. | Matriculation Examinations begin. |

1918-19

## JUNIOR MATRICULATION EXAMINATION TIME-TABLE.

**SEPTEMBER, 1918.**

| Date. | Subject | A.M. | Subject | P.M. |
|---|---|---|---|---|
| Monday, Sept. 16th | History | 9 to 11 | English Literature | 1 to 3 |
| | | | German Translation | 3 to 5 |
| Tuesday, Sept. 17th | Latin Authors and Sight | 9 to 11 | Latin Grammar and Composition | 1 to 3 |
| | | | Trigonometry | 1 to 3 |
| Wednesday, Sept. 18th | French Translation | 9 to 11 | French Grammar | 1 to 3 |
| Thursday, Sept. 19th | Geometry, Part I. | 9 to 11 | Physiography | 1 to 3 |
| | | | Chemistry | 1 to 3 |
| | | | German Grammar | 1 to 3 |
| Friday, Sept. 20th | Algebra, Part I., and Arithmetic | 9 to 11 | English Composition | 1 to 3 |
| | | | Geometry, Part II. | 3 to 5 |
| | | | Greek Composition and Sight | 3 to 5 |
| | | | Botany | 3 to 5 |
| Saturday, Sept. 21st | Algebra, Part II. | 9 to 11 | | |
| | Greek Authors | 9 to 11 | Agriculture | 2 to 4 |
| | Physics | 9 to 11 | | |

1918-19

## EXAMINATION TIME-TABLES.

### Faculty of Arts, Supplemental Examinations, September, 1918.

| Date | Hour. | Supp. to First Year Sessional. | Supp. to Second Year Sessional. | Supp. to Third Year Sessional |
|---|---|---|---|---|
| Monday, Sept. 16... | 9 | Trigonometry | English Literature | English Literature |
| | 2 | Algebra | English Composition | English Composition |
| Tuesday, Sept. 17.. | 9 | Latin Books. | Latin Books | Latin Books |
| | 2 | Latin Composition, Sight Translation and History. | Latin Composition, Sight Translation, History, and Literature | Latin Composition, Sight Translation English Literature. |
| Wednesday, Sept. 18 | 9 | French | French | French |
| | 2 | French | French | |
| Thursday, Sept. 19. | 9 | English Literature | Chemistry Geology | |
| | 2 | English Composition and History | Psychology | |
| Friday, Sept. 20.... | 9 | Geometry | Greek Books Logic German | |
| | 2 | Physics | Greek Composition Sight Translation German | |
| Saturday, Sept. 21.. | 9 | Greek Books German | Solid Geometry and Conics | |
| | 2 | Greek Composition Sight Translation and History German | Algebra | |

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# The University of British Columbia

## HISTORICAL SKETCH.

The establishment of a University in British Columbia was first advocated by Superintendent Jessop in 1877, when he called public attention to the urgent need for providing the youth of the Province with an education which would adequately equip them for their various activities in the life of the Province. It was several years, however, before active steps were taken in this direction.

In 1890 the Provincial Legislature passed an Act establishing a body politic and corporate named the University of British Columbia. The first Convocation was held in Victoria on August 26th, 1890, when the Hon. John Robson, Provincial Secretary, presided. There were present seventy certified members of Convocation, who elected three members of Senate.

In 1891 the Act was amended by the addition of a clause requiring a meeting of the Senate to be held within one month after the election of Senators by Convocation. The Senators having been elected on June 2nd, the Chancellor, Dr. I. W. Powell, of Victoria, called a meeting of Senate for July 2nd. A quorum failed to assemble, and the first attempt to establish a University proved futile.

There being no immediate prospect of a Provincial University, some friends of higher education conceived the idea of bringing a university education—at least in part—within the reach of the youth of the Province by establishing relations with some one of the existing Canadian universities.

Owing to their efforts, an Act was passed in 1894 which empowered the affiliation of high schools in the Province to recognized Canadian universities; and this was supplemented in 1896 by an Act providing for the incorporation of affiliated high schools as colleges of the universities to which they were affiliated.

Under these enactments, Vancouver High School was admitted to affiliation with McGill University for the first year in

Arts, and began University work under the name of Vancouver College in the year 1899. (The man to whom more than any other the credit is due for the inauguration and successful organization of the scheme of affiliation was the late Mr. J. C. Shaw, M.A., formerly Principal of Vancouver High School, and later Principal of Vancouver College, and of McGill University College).

In 1902 an extension of affiliation was granted to cover the second year in Arts, and in the same year Victoria High School also became affiliated to McGill University for the first year in Arts under the name of Victoria College.

As the work grew, still closer connection with McGill University became necessary, and in 1906 an Act was passed incorporating the Royal Institution for the Advancement of Learning of British Columbia. In the same year the Royal Institution established at Vancouver the McGill University College of British Columbia, taking over (by agreement with the Vancouver Board of School Trustees) the Arts work previously done by the Vancouver College, increasing the number of 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 Victoria College came also under the control of the Royal Institution as a part of the McGill University College of British Columbia, with power to give courses in the first two years in Arts.

The instruction given was similar to that of McGill University, the standards were identical, and the University examined and accepted the undergraduates *ad eundem statum.*

During the last year of its existence the McGill University College enrolled 292 students at Vancouver and 70 at Victoria.

These institutions were maintained mainly by grants from the School Boards of Vancouver and Victoria, supplemented in the earlier stages by contributions from Sir William Macdonald, of Montreal, and many public-spirited citizens of British Columbia, and later by grants from the Provincial Government, the City of Vancouver, and the University of British Columbia.

When the University of British Columbia opened its doors in the fall of 1915 these colleges ceased to exist, and at the same

time the connection of the Province with McGill University in higher education—a connection which had existed for a period of sixteen years and was alike creditable to McGill and advantageous to the Province—was also brought to a close.

Meanwhile efforts for the establishment of a Provincial University had been renewed, and in 1907 the Hon. Dr. H. E. Young, Minister of Education, took definite steps to establish a University by introducing a "University Endowment Act," which was passed by the Legislature. By this Act (slightly amended in 1911 and 1913) the setting apart of 2,000,000 acres of land, by way of University endowment, was authorized.

### Constitution of Present University.

In 1908 an Act establishing and incorporating the University of British Columbia and repealing the old Act of 1890-1 was passed. The Act of 1908 provides:—

> That the University shall consist of a Chancellor, Convocation, Board of Governors, Senate, and the Faculties; that the first Convocation shall consist of all graduates of any university in His Majesty's dominions resident in the Province two years prior to the date fixed for the first meeting of Convocation, together with twenty-five members selected by the Lieutenant-Governor in Council. After the first Convocation it shall consist of the Chancellor, Senate, members of the first Convocation, and all graduates of the University; that the Chancellor shall be elected by Convocation; that the Board of Governors shall consist of the Chancellor, President, and nine persons appointed by the Lieutenant-Governor in Council; that the Senate shall consist of: (*a*) The Minister of Education, the Chancellor, and the President of the University, who shall be Chairman thereof; (*b*) the deans and two professors of each of the Faculties elected by members of the Faculty; (*c*) three members to be appointed by the Lieutenant-Governor in Council; (*d*) the Superintendent of Education, the principals of the normal schools; (*e*) one member elected by the high-school principals and assistants who are actually engaged in teaching; (*f*) one member elected by the Provincial

Teachers' Institute organized under subsection (*e*) of section 8 of the "Public Schools Act"; (*g*) one member to be elected by the governing body of every affiliated college or school in this Province; (*h*) fifteen members to be elected by Convocation from the members thereof:

That the University shall be non-sectarian:

That instruction in Arts shall be free to all regular students matriculated in the University:

That women students shall have equality of privilege with men students:

That no other university having corporate powers capable of being exercised within the Province shall be known by the same name, or have power to grant degrees.

**Instruction.**

The Act of 1908 (consolidated August 2nd, 1912) provides for:—

(*a*) Such instruction in all branches of a liberal education as may enable students to become proficient, and qualify for degrees, diplomas, and certificates, in Science, Commerce, Arts, Literature, Law, Medicine, and all other branches of knowledge; (*b*) such instruction especially, whether theoretical, technical, artistic, or otherwise, as may be of service to persons engaged in the manufactures, or the mining, engineering, agricultural, and industrial pursuits of the Province; (*c*) facilities for the prosecution of original research in Science, Literature, Arts, Medicine, Law, and especially the applications of Science; (*d*) such fellowships, scholarships, exhibitions, prizes, rewards, and pecuniary and other aids as shall facilitate or encourage proficiency in the subjects taught in the University, and also original research in every branch; (*e*) such extra-collegiate and extra-university instruction and teaching as may be recommended by the Senate.

**Selection of a Site.**

Under authority of an Act passed by the Legislature in 1910, the Lieutenant-Governor in Council appointed a Site Commission

whose decision was to be final. The personnel of the Commission was as follows:—

Dr. R. C. Weldon, Dean of Law School, Dalhousie University, Chairman.

Rev. Canon G. Dauth, Vice-Rector, Laval University, Montreal.

Dr. Walter C. Murray, President, University of Saskatchewan.

Dr. Oscar V. Skelton, Professor of Economics, Queens University.

Dr. Cecil C. Jones, Chancellor, University of New Brunswick.

The Commission held its first meeting on May 25th, 1910, in Victoria, and after an exhaustive examination of the Province presented the following unanimous report:—

Victoria, B. C., June 28th, 1910.

*To His Honour the Lieutenant-Governor in Council*:

SIR,—The University Site Commission begs to submit the following report:—

In accordance with the provisions of the "University Site Commission Act, 1910," your Commissioners have visited and made a careful examination of the several cities and rural districts in the Province suggested as suitable University sites, and have selected as the location for the University the vicinity of the City of Vancouver.

Accompanying the main report was the following supplementary report:—

The University Site Commissioners are strongly of the opinion that the University should not be placed on a site which may in time be completely surrounded by a city. They respectfully suggest that not less than 250 acres be set apart for the University campus, and 700 acres for experimental purposes in agriculture and forestry. This is exclusive of a forest reserve for forestry operations on a large scale.

The Commissioners are of the opinion that the most suitable site is at Point Grey, unless the soils there and those of the delta land adjacent are found to be unsuitable for the experimental work of the College of Agriculture. Should Point Grey prove impossible, the Commissioners suggest: First, a site along the shore of North Vancouver, provided the tunnel and bridge are constructed; second, St. Mary's Hill, overlooking the Pitt, Fraser, and Coquitlam Rivers, provided residences are erected for the students. Central Park, though conveniently sit-

uated, will probably be surrounded by the Cities of Vancouver and New Westminster, and because of this and of the absence of outstanding scenic advantages is undesirable.

While the Commissioners are firmly convinced that it is of the highest importance to have all the Faculties of the University doing work of University grade located together, they believe that the diverse conditions of agriculture in this Province make it advisable to divide the work of agricultural education between the College of Agriculture and Schools of Agriculture of secondary grade located in different centres. The College of Agriculture should conduct researches, provide courses leading to a degree, and supervise the extension work and Schools of Agriculture. These schools should be established in conjunction with the Demonstration Farms in typical centres, and should provide short courses (extending over the winter months) of two or three years for the sons of farmers. Each school might specialize in one or more branches, such as horticulture, dairying, etc.

Similarly, Technical Evening Schools might be opened in the different coal-mining centres for the preparation of candidates for mining certificates, and in the metal-mining districts for the assistance of prospectors and others.

The Commissioners have been greatly impressed by the marvellous richness, variety, and extent of the natural resources of this Province, and by the very generous provision made for the endowment of the University; and they are of the opinion that, if the University adopts a policy of offering salaries ranging from $3,800 to $5,000 to its professors, it will attract men of the highest ability, who, by their scientific investigations and outstanding reputations, will not only materially aid in developing the resources of the Province, but will also place the University on an equality with the best universities of America.

In the autumn the Executive Council, after a careful survey of the sites proposed, decided to locate the University at Point Grey, the site which the Commission named as its first choice.

In 1911 the Legislature passed an Act authorizing the Lieutenant-Governor in Council to grant this site to the University. In 1913 this grant was increased by a few acres.

The site at present consists of 250 acres lying upon the extremity of the headland of Point Grey at an elevation of approximately 300 feet above the sea. The waters of the Gulf of Georgia form more than half the boundary of the site, while the remaining sides are bounded by a tract of some 3,000 acres of Government land. It is accessible by water for passenger and freight service, and is within a mile and a half of the existing electric tram service, which will be extended to the grounds.

The site has now been cleared and the main campus and some of the roads have been graded.

### First Convocation.

Between May 1st and July 31st, 1912, 849 members of Convocation were registered, of whom twenty-five had been appointed by the Lieutenant-Governor in Council. The first Convocation, held August 21st of the same year, chose Mr. Francis Carter-Cotton as first Chancellor of the University and elected certain Senators.

### Plans for Buildings.

In February, 1912, the Hon. H. E. Young, Minister of Education, called for competitive plans which should include plans in detail of four buildings to be erected immediately, and a block plan exhibiting the completed buildings as a beautiful and harmonious scheme in keeping with the site, one of the finest in the world.

The first prize was $5,000 and the probability of being engaged as the University architect; the second, third, and fourth, $2.000, $2,000, and $1,000 respectively. The competition was closed in November, and the first prize awarded to Messrs. Sharp & Thompson, of Vancouver, by a Board of Assessors consisting of: Hon. H. E. Young, Minister of Education; F. Carter-Cotton, Chancellor; A. Arthur Cox, Samuel Maclure, and W. Douglas Caröe.

### The President and Governors.

In March, 1913, the Lieutenant-Governor in Council appointed the President, F. F. Wesbrook, M.A.; M.D., C.M. LL.D., and shortly after the following Governors:—

George H. Barnard, Esq., K.C., M.P.
Robert F. Green, Esq., M.P.
Robert E. McKechnie, Esq., M.D., C.M.
Robert P. McLennan, Esq.
Lewis G. McPhillips, Esq., K.C.
Robie L. Reid, Esq., K.C.
S. Dunn Scott, Esq., M.A., LL.D.
Campbell Sweeny, Esq.
George I. Wilson, Esq.

## Buildings and Grounds.

The University architects are Messrs. Sharp & Thompson, of Vancouver, B.C., who obtained the award in the competition held in 1912. In November, 1913, Dr. C. C. James, Commissioner of Dominion Agricultural Instruction, met with a Commission appointed to examine and report upon the general design for the University. A general plan was prepared by this Commission and approved by the Board of Governors.

The report accompaning the plan presented a statement of the problem to be solved and the solution proposed by the Commission, and pointed out the practical and artistic possibilities of the design. With it were submitted drawings showing the building areas for the various constituent portions of the University, and the location proposed for the buildings which are to be constructed at once. The design is a comprehensive one, and provides for the needs of an institution potentially great, the relatively small beginnings of which must be arranged with due regard for present economy and efficiency, yet in such a manner as to ensure co-ordination with a properly planned and steadily developing scheme.

The Commission consisted of:—

Dr. Thomas H. Mawson, City Planner and Landscape Artist, of London, England.

Mr. Warren Powers Laird, Professor and Head, School of Architecture, University of Pennsylvania, and Advisory Architect to the University of Wisconsin.

Mr. Richard J. Durley, late Professor and Head of the Department of Mechanical Engineering, McGill University.

Messrs. Sharp & Thompson, the University Architects.

In accordance with the recommendations of the Commission's report, detailed plans and specifications are being prepared for the various buildings, and the Science Building is under construction.

This building is planned for the temporary accommodation of Physics, Chemistry, Biological and certain other Sciences, but it is intended ultimately for the sole use of Chemistry. With its equipment it is expected to cost about $600,000.

### Preparations for Work.

In 1914 the Legislature voted $500,000 and the Government promised $1,000,000 for the following year, thus enabling the Board to proceed with actual work on the University. The clearing of the site was completed and necessary grading done; the steel-concrete work of the Science Building was completed; the Deans of Agriculture and Applied Science and some professors were appointed, and in general the necessary preliminary preparations were made for beginning University work in the fall of 1915.

### War Conditions.

Upon the outbreak of war in August, 1914, the Board of Governors, feeling that it would be shortsighted and unpatriotic to commit the public to a large capital expenditure and heavy fixed charges when every available dollar in the country might be required in the struggle to preserve the rights and liberties of free peoples, decided to withhold the contract for the completion of the Science Building, to make no further contracts or appointments to the staff, and to postpone large expenditures upon the library and grounds. By this action the grant for the year largely reverted to the Provincial Treasury, and the people were not committed to a heavy outlay in 1915.

In 1915 the Legislature voted sufficient funds to enable the University to take over and carry on the work of McGill University College, and to add a year's work to it, thus giving a complete Arts Course leading to a degree and the first three years in a course in Applied Science. Funds were also voted to enable Dean Klinck to prepare and put under cultivation a small portion of the campus to be ready for experimental work by the time agricultural classes can be undertaken.

### Students at the Front.

A number of the students of the University having volunteered for the Front, certain conditions arose which were dealt with at a meeting of the Senate held on February 16th, 1916. At this meeting the following resolutions were carried with regard to the standing to be granted students enlisting for overseas service:—

(1.) "That students who leave in their fourth year be given their degree at the end of the session.

(2.) "That those who attend for the major part of any year be given their standing for that year.

(3.) "That it be made possible for those who leave before the end of the first term to graduate when they have completed three full years at the University.

(4.) "That former students of the McGill University College of British Columbia at present at the Front who would otherwise be now enrolled in the University of British Columbia be given an opportunity of enrolling as students of the University of British Columbia without payment of fees."

### First Session (1915-16).

The University opened, as announced, on September 29th, 1915. Three hundred and seventy-nine students were enrolled, which, with fifty-six students at the Front, made a total student body of 434.

The students in attendance came from forty localities in British Columbia, three other Canadian Provinces, and six other countries.

A successful session was brought to a close by Congregation held on May 4th, at which forty students were granted the degree of B. A.

## THE UNIVERSITY AND THE PROVINCE.

The University of British Columbia is an integral part of the public educational system of the Province. As such it completes the work begun in the public and high schools.

By prescribing a large number of studies during the first years of undergraduate work, and by leaving a wide choice under a definite system to the student during his final years, the University endeavors to give a wise measure of direction, and at the same time to encourage individual initiative and special development.

In addition to fostering the general educational interests of the

Province, it is the policy of the University to render service to its constituency through three generally recognized channels—viz., teaching, research, and extension. The University undertakes to furnish instruction in the various branches of a liberal education, and in those technical departments which are most directly related to the life and industries of the Province. That its teaching may be vitalized, and that it may do its share in contributing to the advancement of knowledge, the University aims to encourage research in all departments. When a sufficiently firm foundation has been laid in these two departments of University activity, extension work will be organized. Through this channel new truths discovered in this or in other institutions of learning will be presented in popular form in many centres throughout the Province. By this means those whose circumstances deprive them of the opportunity of attendance at the University may avail themselves of the latest contributions to knowledge, as well as of the most recent lessons of practical experience.

## ENDOWMENTS.

The "University Act" of 1908 (slightly amended in 1912) provides that:—

> "Any person or corporation may, with the approval of the Senate, found one or more professorships, lectureships, fellowships, scholarships, exhibitions, prizes, or other awards in the University, by providing a sufficient endowment in land or other property, and conveying the same to the University for such purposes, and every such endowment of lands or other property shall be vested in the University for the purpose or purposes for which it is given."

## THE LIBRARY.

Acting Librarian, John Ridington.

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|---|---|
| Catalogue, Order and Loan Departments | Dorothy M. Jefferd.<br>Lionel Haweis.<br>Winifred Attwaters. |

The University Library consists of 27,300 volumes and about 9,000 pamphlets. It includes representative works in Chemistry, Classics, Economics, Geology, History, Modern Languages, Philosophy, Physics, Technology, and a growing collection of works of General Reference. It also possesses a number of complete sets of periodical publications devoted to literature and science, and of the transactions of learned societies.

Small working reference libraries are maintained in the Chemistry and Geology Departments. The number of books added to the Library during the past university year was 3,597. Two hundred and twenty magazines and periodical publications are regularly received.

The Library is classified throughout on the Congressional System. The classification is complete except in Religion (BL-BV) and Classics (PA), the schedules for which have not yet been completed by the Library of Congress. In these sections the books are at present grouped in main classes, and arranged in alphabetical order by name of author. The Card Catalogue in the Reading Room makes available all the classified portions of the Library by author, title, subject, with necessary analyticals. The Catalogue contains over 65,000 cards. The Reading Room has accommodation for over 80 readers.

During the session the Library is open from 8.45 a.m. to 9 p.m.; on Saturdays from 8.45 a.m. to 5 p.m. In vacation it is open from 9 a.m. to 5 p.m., except on Saturdays, when the hours are from 9 to 12 a.m.

Books to which the Teaching Staff have specially referred their classes for consultation are placed in a "Reserved" class. These may be loaned only for periods during which the Library is closed. Other works, to the number of two, may be borrowed by students for a period of seven days, or for a shorter period should the volume be in general demand.

Works that are rare, costly, or otherwise unsuited for general circulation are loaned only under special conditions.

During the past academic year a number of valuable contributions to the Library have been made by governments, institutions, corporations, and private benefactors. Many of these gifts are of great value. The following is a list of donations since the issue of the Calendar for 1917-18:—

THE GOVERNMENT OF GREAT BRITAIN AND IRELAND.

Debates, House of Lords.
Debates, House of Commons.
Departmental Reports, Blue Books, Pamphlets, etc.

THE GOVERNMENT OF THE DOMINION OF CANADA.

Debates, Senate.
Debates, House of Commons.
Sessional Papers.
Departmental Reports and other Official Publications.

THE GOVERNMENT OF THE COMMONWEALTH OF AUSTRALIA.

Publications of Bureau of Census and Statistics, Year Books, and other Official Publications.

THE GOVERNMENT OF THE DOMINION OF NEW ZEALAND.

Official Publications.

THE GOVERNMENT OF THE UNION OF SOUTH AFRICA.

Official Publications.

THE GOVERNMENT OF THE UNITED STATES OF AMERICA.

Reports and Official Publications.

THE GOVERNMENT OF BRITISH COLUMBIA.

Statutes, Departmental Reports and Official Publications.

THE GOVERNMENT OF PROVINCE OF ONTARIO.

Official Publications.

THE STATE OF NEW YORK—EDUCATION DEPARTMENT.

Reports.

THE STATE OF KANSAS, STATE GEOLOGICAL SURVEY.

Bulletins.

MCGILL UNIVERSITY, MONTREAL.

75 Volumes, Historical and Scientific.

QUEEN'S UNIVERSITY, KINGSTON, ONT.

Weir; Separate School Law.

BUREAU OF RAILWAY ECONOMICS, WASHINGTON, D.C.

Reports, Pamphlets, etc.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, WASHINGTON, D.C.

15 Volumes, and Current Publications.

CARNEGIE INSTITUTE, WASHINGTON, D.C.

Current Publications.

1918-19

FRANKLIN INSTITUTE, PHILADELPHIA, PENN.
15 Bound Volumes, and other publications.

LEAGUE TO ENFORCE PEACE, N.Y.C.
Publications.

MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM, PLYMOUTH, ENGLAND.
Journals, Reports, Monographs, etc.

SMITHSONIAN INSTITUTION, WASHINGTON, D.C.
Publications.

AMERICAN JERSEY CATTLE CLUB.
21 Vols. Herd Books.

AMERICAN SWEDENBORG SOCIETY.
Works of Swedenborg, complete 28 volumes.

CANADIAN NATIONAL LIVE STOCK RECORDS.
Publications.

HOLSTEIN FRIESIAN ASSOCIATION OF AMERICA.
Advanced Register, 19 Vols.
Herd Book, 2 Vols.

HOLSTEIN FRIESIAN ASSOCIATION OF CANADA.
Herdbook, 8 Vols.

INTERNATIONAL JOINT COMMISSION, OTTAWA.
Reports.

LAKE MOHONK CONFERENCE ON INTERNATIONAL ARBITRATION, N.Y.
Reports, 1895-1916.

UNIVERSITIES BUREAU OF THE BRITISH EMPIRE.
Year Book, 1916-17.

LIBRARY OF PARLIAMENT, OTTAWA.
Catalogue, 16 Vols.

J. E. ALLISON, ESQ., ST. LOUIS, MO., U.S.A.
Allison: Theoretical Depreciation.

E. H. ARCHIBALD, ESQ., THE UNIVERSITY.
Royal Society of Edinburgh, 1911-17.

1918-19

C. BERKELEY, ESQ., THE UNIVERSITY.

Science Progress, 14 Vols.

MRS. G. W. AND MISS EDITH BOGGS, VANCOUVER, B.C.

Sixty Volumes from the Medical Library of the late George W. Boggs, Esq., M.D., C.M.

SIR ROBERT BORDEN, OTTAWA.

Canada in Flanders.
The War and the Future.

HENRI CHODAT, ESQ., THE UNIVERSITY.

Birch: Secret Societies in the French Revolution.
Elliott: During the Reign of Terror.
Sudermann: Frau Sorge.

R. H. CLARK, ESQ., THE UNIVERSITY.

Society of Chemical Industry.

DR. GATEWOOD, VANCOUVER, B.C.

Herbert: Frank Forester's Field Sports.

R. E. GOSNELL, ESQ., VICTORIA, B.C.

Gosnell: Canadian Municipal Statistics.
Gosnell: Sixty Years of Progress in British Columbia.

MISS HADWEN, ASHCROFT, B.C.

Extracts from the Borough of Edinburgh.
Fern: Criminal Sociology.
Fleury: Criminal Mind.
Green: Town Life in the 15th Century.
Haiz: Uric Acid.
Ireland: The Blot Upon the Brain.
Jamieson: Scottish Dictionary.
Macdonald: Historical Sketches.

E. T. HODGE, ESQ., THE UNIVERSITY.

California State Council of Defense: Report of the Committee on Petroleum.

WM. LOCHEAD, MACDONALD COLLEGE, ST. ANNE, *P.Q.*

Lochead: Heredity and Genetics.

DOUGLAS MCINTOSH, ESQ., THE UNIVERSITY.

Royal Society of Canada, Proceedings and Transactions.

E. G. MATHESON, ESQ., THE UNIVERSITY.

Lavis: Railway Estimates.

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Mildmay: In the Waiting Time of War.

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Whetham: A Treatise on the Theory of Solutions.

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Holstein Herd Book, Vol. 5.

VEN. ARCHDEACON RAYMOND, D.D., F.R.C.S., HALIFAX, N.S.
New Brunswick Historical Society, Collections.

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Tyndale: An Answer to Sir Thomas More's Dialogue.

F. A. RICKARD, ESQ., SAN FRANCISCO, CAL.
Rickard: Through the Yukon.

JOHN RIDINGTON, ESQ., THE UNIVERSITY.
Ridington: The Meaning and Mission of Music.

L. F. ROBERTSON, ESQ., THE UNIVERSITY.
La Libre Belgique, No. 62, Feb. 1916.

HERBERT SKINNER, ESQ., NANAIMO, B.C.
Bliss: Encyclopaedia of Social Reform.
Goldmark: Fatigue and Efficiency.
Holmes: In Defence of What Might Be.
Holmes: What is, and What Might Have Been.
Longford: Story of Old Japan.
Metchinkoff: Prolongation of Life.
Ravenhill: Some Characteristics of Childhood.

Rausenbusch: Christianizing the Social Order.
Rothstein: Egypt's Ruin.
Russell: Our Knowledge of the External World.
Sargent: Manual of Trees.
Schweizer: Quest of the Historical Jesus.
Scudder: Socialism and Character.
Strong: Our World.
Wallace: Social Environment and Moral Progress.
Wallace: World of Life.

SOUTHAM PRESS, LTD., TORONTO.

Ross: Petroleum in Canada.

A. VILSTRUP, ESQ., VANCOUVER, B.C.

Hein: Die Einrichtung Elektricscher.
Holzt: Die Schule des Elektrotechnikers.
Jischer-Huinen: Die Wirkung Weise.
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American Society of Civil Engineers, Transactions, 13 Vols.
American Society of Civil Engineers, Proceedings, 11 Vols.
Also Unbound Volumes of above.

F. F. WESBROOK, ESQ., THE UNIVERSITY.

Journal of Bacteriology, 2 Vols.

ANONYMOUS.

Cicero: De Senectute (Schuckburgh).
Goodwin and White: Selections from Xenophon and Herodotus.
Horace: Opera (Chase).
Lindsay: Juvenal's Satires.
Masters: Spoon River Anthology.
D'Ooge, The Orations of Demosthenes.

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VANCOUVER DAILY SUN.

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VANCOUVER DAILY WORLD.

Two Copies Daily.

## GENERAL INFORMATION.

### Degrees.

The University Act gives the University full powers to grant such degrees in the several Faculties and different branches of knowledge as the Senate may from time to time determine. The Act reserves for the University the sole right in this Province to confer degrees, except in Theology.

### Courses of Study.

For the Session 1918-19 the University offers instruction in the first, second, third, and final years of the Arts Course, leading to the degree of Bachelor of Arts, which will be conferred upon those who successfully complete the course, in the first, second, and third years of Courses in Applied Science; and in the first two years of a Course in Agriculture.

A fourth-year Course is offered in Chemical Engineering.

It is proposed to establish in the Session of 1919-20 a fourth year Course in Mining in the Faculty of Applied Science.

### The Session.

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

The Session of 1918-19 will begin on Wednesday, September 25th.

Two Matriculation Examinations will be held, one commencing on Monday, September 16th, 1918, and the other on June 23rd, 1919.

### Buildings.

Since there is no accommodation at present on the University site at Point Grey, the work for the coming session, with the exception of laboratory work in agriculture, will be conducted in buildings on the site of the Vancouver General Hospital. These consist of one large modern fire-proof building, containing class-rooms and offices, and several commodious frame buildings. These latter include separate buildings for Physics,

Chemistry, Geology, and Mining, an Assembly Hall, and Workshops.

### Equipment.

Laboratories and equipment are available for courses in the work undertaken. Facilities for field-work in Physical Geography, Geology, and Mining exist in the immediate vicinity of Vancouver. Climatic conditions permit class excursions to be made throughout the session.

### Church Attendance.

All students are expected to attend a church of the denomination to which they adhere.

Students are requested to report to the President in writing the churches which they intend to make their places of worship. The reports will be used as the basis for notification to the various churches.

### 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 specially qualified 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. The appropriate form of exercise or athletic activity will then be recommended.

### Military Training.

Military training is required of all male students during the first two years of their attendance. (See page 117).

### Board and Residence.

Good board and lodging can be obtained in the vicinity of the College buildings at a cost of from $25 per month upwards; or, separately, board at $20 to $30 per month; rooms at $5 to $10 per month.

Lists of approved boarding-houses, accessible to the University, the moral and sanitary conditions of which are satisfactory,

may be obtained from the Registrar. Requests for these should state whether they are for men or women students.

Men and women students are not permitted to lodge in the same house, unless they are members of the same family, or receive special permission from the Senate.

### Student Advisers.

Upon entrance each student is assigned to a member of the Faculty, who acts as his adviser in the matter of studies. Each term the student is requested to consult his adviser concerning the choice of studies.

The special advisers for women students will be glad to give counsel and advice on any matters on which they may be consulted.

### Academic Dress.

The Undergraduate's gown shall be black in colour and of the ordinary stuff material, of ankle length, and with long sleeves and the yoke edged with khaki cord. Graduate's gowns the same, without cord.

Bachelor's hood shall be of the Cambridge pattern, black bordered with the distinctive colour of the particular Faculty; the Master's hood to be lined with the same colour. The colours are, for Arts, University blue; for Science, red; for Agriculture, maize.

Chancellor's robes scarlet, Oxford D.C.L. pattern, cloth, hood scarlet lined with white swansdown.

President's robes the same.

# ADMISSION TO THE UNIVERSITY.

## 1.—ADMISSION BY MATRICULATION EXAMINATION OR ITS EQUIVALENT.

### 1.—Regulations.

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

1. A special regulation to govern admission of Matriculation students who have enlisted for overseas service:—

A Matriculation student, whose work is certified as up to standard by the Principal of his school, will be allowed to enter the First Year without further examination.

The above conditions shall also govern the admission of Senior Matriculation students to the Second Year.

2. The Regular Matriculation Examination will be held beginning June 23rd, 1919, at all the centres in British Columbia at which high-school examinations are now held, that is to say: Agassiz, Armstrong, Bridgeport, Chilliwack, Cranbrook, Cumberland, Duncan, Enderby, Fernie, Golden, Grand Forks, Kamloops, Kaslo, Kelowna, Ladner, Ladysmith, Matsqui, Mission, Nanaimo, Nelson, New Westminster, Peachland, Penticton, Point Grey, Alberni, Prince Rupert, Revelstoke, Rossland, Salmon Arm, Summerland, Trail, Vancouver (Britannia, King Edward, and King George), North Vancouver, South Vancouver, Vernon, and Victoria, as well as Abbotsford, Belmont, Cloverdale, Creston, Hedley, Maple Ridge, Merritt, and Sidney, and at any other high school established during the year.

3. A second examination will be held in September, but only for extra-provincial students, and such students resident in the Province as may have been granted the privilege of taking a supplemental examination by the Matriculation Board of Examiners. It will be held only at Vancouver and Victoria.

4. Every candidate for examination is required to fill up an application form and return the same with the necessary fee (for which see page 39) one month before the examination begins. Blank forms may be obtained from the Registrar.

5. Candidates will not be considered as having passed unless they obtain at least 50 per cent. on the aggregate and at least 40 per cent. on each paper.

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

6. Candidates for admission to the Faculties of Arts and Applied Science who have failed, by a small margin, to complete the Matriculation requirements may be allowed to enter the first year as conditioned undergraduates on the recommendation of the Committee on Admission, Standing and Courses.

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

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. Certificates and diplomas covering the Matriculation requirements of other universities will, if submitted to the Registrar, be accepted *pro tanto* in lieu of the Matriculation Examination; i.e., in so far as the subjects and standard of the examination taken to obtain them are, to the satisfaction 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.*

## II. MATRICULATION EXAMINATION FEES

### Junior Matriculation.

For the first examination*.....$ 5 00
For a subsequent examination, per paper ..... 2 00
For examination of certificates, in respect of which candidates are exempted from the whole of the Matriculation Examination ..... 2 00

### Senior Matriculation.

For the first examination* .....$10 00
For a subsequent examination, per paper ..... 2 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.

For furnishing a duplicate of a lost certificate a fee of $1 will be charged.

## III.—SUBJECTS OF EXAMINATION

### FACULTY OF ARTS.

### Junior Matriculation.

The subjects for Junior Matriculation (that is, for entrance into the Faculties of Agriculture and Arts) are as follows:—

1. **English.**
2. **History and Historical Geography.**
3. **Mathematics: Algebra and Arithmetic, Geometry.**
4. **French**, or **German**, or **Latin.**
5. **Agriculture**, or **Botany**, or **Chemistry**, or **Greek**, or **Physics**, or one of the languages in 4 not already taken.
6. One of the languages in 4 not already taken, or two of the sciences in 5 not already taken.

Greek can only be taken by students offering Latin.

*In the cast of candidates who qualify on certificates, or by other examinations in all but three subjects or less, the fee will be $3.

### Senior Matriculation.

The subjects for the Senior Matriculation (that is, for entrance into the Second Year in Arts) are as set forth on pp. 59 and 60. Candidates must furnish evidence of having passed Junior Matriculation, or its equivalent.

## FACULTY OF APPLIED SCIENCE.

The requirements for Matriculation in Applied Science are the same as for Senior Matriculation. Students who have passed the First Year in Arts are admitted to the First Year in Applied Science without further examination.

Candidates for a Senior Matriculation certificate will not be considered as having passed unless they obtain at least 50 per cent. on the aggregate and at least 40 per cent. in every paper.

For Returned Soldiers entering the Faculty of Applied Science, the requirements are:—

1. English (as on pp. 40 and 41).
2. History and Historical Geography (as on page 41).
3. One of the following:
   French, German, Latin (as on pp. 42, 43 and 44).
4. Algebra and Arithmetic:
   Hall and Knight's Elementary Algebra (omitting Chapters 40, 41, 42), or the same subject-matter in similar text-books.
5. Geometry:
   As in Hall and Stevens' School Geometry.
6. Trigonometry:
   Hall and Knight's Elementary Trigonometry to page 210, and Chapter 19; nature and use of logarithms (Bottomley's four-figure tables).
7. One of the following:
   Botany, Chemistry, Physics, a language not already chosen (as on pp. 42 and 44).

## REQUIREMENTS IN EACH SUBJECT.

### For Junior Matriculation.

**English.**

A. *Composition and Reading.*—The principles of English composition, as in Sykes' Elementary Composition, with short essays

on a general subject and other subjects based on works prescribed for reading as follows: (*a*) Prose (two books to be selected)—Washington Irving. The Sketch Book (ed. Lichfield, Ginn & Co.); Scott, Kenilworth; George Eliot, Silas Marner (ed. Witham, Ginn & Co.); Southey, Life of Nelson (Everyman's Library). (*b.*) Poetry (one to be selected)—Shakespeare, As You Like It (Macmillan or Ginn); Tennyson, Gareth and Lynette (Macmillan or Ginn).

The editions are merely recommended, not required.

The books to be 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).—Shakespeare, Merchant of Venice *or* Henry V.; Poems of the Romantic Revival (Copp, Clark Co.), omitting the selections from Coleridge and Byron.

Candidates will be expected to memorize some of the finest passages.

Two examination papers of two hours each.

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

**History and Historical Geography.**

The essentials of European history, ancient, mediæval, and modern (to the eighteenth century), as presented by Breasted and Robinson in their "Outlines of European History," Part I. (Ginn & Company).

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

One paper of two hours.

**Mathematics.**

1. *Algebra and Arithmetic.*—Algebra: as in the first thirty-one chapters, and the graphical work of Articles 411 to 428, inclusive, Hall & Knight's Elementary Algebra, omitting the articles in Chap. 29 marked with an asterisk. Arithmetic: Vulgar and Decimal Fractions, Square and Cube Root, Commercial Arithmetic, Metric System.

Books recommended: (*a*) *Siepmann, Primary German Course* (Macmillan); (*b*) *Allen, German Life,* (Holt); (*c*) *Goebel, Rübezahl* (Macmillan).

N.B.—Teachers should insist upon correct pronunciation, and use the language as much as possible in class instruction.

Two papers of two hours each.

**Chemistry.**

As in Waddell's A School Chemistry (MacMillan).

One two-hour paper.

**Botany.**

Upon application of schools giving a matriculation course in Botany, the following outline of the course will be supplemented by supplying lists of British Columbia plants which may be used in illustration and with specific references to sections in the books mentioned below.

Emphasis is placed upon comprehension of principles rather than mastery of detail, and upon observation rather than book knowledge.

A. *Plant Structures and the Part taken by each in carrying on Life Processes.*

1. *Root.*
   - (*a.*) Anchorage; forms of roots in relation to anchorage.
   - (*b.*) Food storage; examples of food storage in roots.
   - (*c.*) Absorption of food materials from the soil; root-hairs; osmosis experiment.

2. *Stem.*
   - (*a.*) Support of leaves and flowers; forms of stems considered in this relation.
   - (*b.*) The conduction of food and food materials; the general structure of the stem and its relation to conduction.
   - (*c.*) Storage of food; examples.

3. *Leaves.*
   - (*a.*) Manufacture of food from raw food materials; experiments to illustrate; the importance of light; the light relation of leaves.

(*b.*) Food storage; examples.

(*c.*) Transpiration of water; experiments to illustrate.

4. *Flower.*—Reproduction; the parts of a flower; the structure and role of each; structures related to pollination.

5. *Seed.*

(*a.*) Food storage; and

(*b.*) Protection of young plant during its dormant period; the structure of the bean seed and corn.

6. *Fruits.*

(*a.*) Protection; and

(*b.*) Dispersal of seeds; classification of fruits on these bases.

B. *Plants in Relation to their Environment.*

1. *Plant Associations.*—Based upon conditions of temperature, amount of available water, light intensity, nature of soil.

2. *Modifications* in form and structure of roots, stems, and leaves in response to conditions.

3. *The Interrelation of Plants and Animals.*—Insect pollination; distribution of seeds.

4. *Movement responses;* growth movements; "day and night" movements; the sensitive plant.

C. *Classification of Plants.*

1. *Thallophytes.*—Recognition of algæ (green, red, brown), lichens, fungi.

2. *Bryophytes.*—Moss; description of plant.

3. *Pteridophytes.*—Recognition of Horsetails and Lycopods; description of a fern.

4. *Spermatophytes.*

(*a.*) *Gymnosperms.*—Conifers; at least five examples. Study of leaves, cones, and general habit.

(*b.*) *Angiosperms.*—Familiarity with the local flora; particularly examples of the following families; (*Monocotyledons*) Gramineæ, Liliaceæ, (*Dicoty-*

*ledons*) Salicaceæ, Rosaceæ, Leguminosæ, Umbelliferæ, Ericaceæ, Labiateæ, Compositæ.

A collection is recommended.

D. *Economic Plants.*—Native of British Columbia.

*Reference Books.*—Bergen and Caldwell: Practical Botany (Ginn & Co.). This book is recommended as most nearly fulfilling text-book requirements.

Coulter, Barns & Cowles: Text Book of Botany, Vols. I. & II. University of Chicago Press.

Ganong: A Text Book of Botany. (Macmillan, 1916.)

Curtis: Nature and Development of Plants. (H. Holt, 1915.)

Henry: Flora of Southern British Columbia. (Gage, 1915.)

One paper of two hours.

**Agriculture.**

*Soil Studies.*—Origin and classification; water, air, and bacteria in soil; drainage; drainage surveys; physical analysis; composition; plant-foods; humus and fertilizers.

*Soil Management.*—Tillage, manuring and rotation of crops; humid and dry farming.

*Vegetable Gardening.*—Hot beds and cold frames; their preparation and use; selection of garden seeds; choice of varieties; cultural methods.

*Small Fruits.*—Origin and evolution; soil and cultural requirements; picking and marketing.

*Landscape Gardening.*—Plans for beautifying home and school grounds; making and care of lawns, walks, and flower beds; best adapted ornamental trees, shrubs, and flowering plants.

*Orcharding.*—Origin, history, and adaptability of standard varieties; location, planting, and management; harvesting and marketing.

*Insect Study.*—Identification and life-history of field, garden and orchard insects; remedial measures.

*Field Crops.*—Selection, cultivation, harvesting, and disposition.

*Live Stock.*—Necessity of live stock in good farming; history, adaptability, and management of the principal classes.

*Poultry.*—Breeds, housing, feeding, and management.

*Rural Economics.*—Laws relating to agriculture; agricultural organisation; co-operative associations; the country-life movement.

One paper of two hours.

## SENIOR MATRICULATION.

The subjects for Senior Matriculation are as follows:—

1. **English and History.**
2. **Mathematics (Algebra, Geometry, and Trigonometry).**
3. **Physics.**
4. **Two** of the following: **Chemistry, French, German, Greek. Latin.**

## REQUIREMENTS IN EACH SUBJECT.

### English.

1. *Literature*—

1.—Chaucer's "Prologue" to the Canterbury Tales.

2.—Spenser's "Faerie Queene," Book I.

3.—Milton's "Comus."

These can be obtained in Macmillan's Pocket Classics.

4.—Halleck's History of English Literature, New Edition. (American Book Co.), pages 1—261, with such illustrations as time may permit. Suitable illustrative material will be found in Chamber's Cyclopedia of English Literature.

2.—*Composition.*—Fundamental principles—words, sentences, paragraphs, the composition as a whole. "The study and practice of writing English," by Lomer and Ashmun (Houghton, Mifflin & Co.) indicates the ground covered. Regular practice in Composition is essential.

### History.

The evolution of modern European society as interpreted by Robinson and Beard in their "Outlines of European History," Part 2 (Ginn & Co.)

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**Mathematics.**

*Algebra.*—Hall and Knight's Elementary Algebra (omitting Chapters 40, 41, 42), or the same subject matter in similar text-books.

*Plane and Solid Geometry.*—As in Hall and Stevens' School Geometry.

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

**Physics.**

A general study of the principles of mechanics, properties of matter, heat, light, sound and electricity. The 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 Agriculture, Chemistry, Engineering and Physics. Students must reach the required standard in both theoretical and practical work and are required to submit a certified laboratory note book.

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

**Chemistry.**

1. *General Chemistry.*—This course is arranged to give a full exposition of the general principles involved in modern Chemistry, and comprises a systematic study of the properties of the more important metallic and non-metallic elements and their compounds, and the application of Chemistry in technology.

Students must reach the required standard in both theoretical and practical work and are required to submit a certified laboratory note book.

Book recommended: General Chemistry for Colleges (Alexander Smith; Century Co.)

**French.**

(*a*) *Literature.*—A general view of French Literature based on passages in Siepmann's Primary French Course. Third Part (Macmillan, Canada), 2nd Edition, 1915. Corneille, Racine,

Molière, La Fontaine, Boileau, Rousseau, Voltaire, Chateaubriand, Sand, Balzac, Hugo, Lamartine, Musset.

(*b*) *Language.*—The passages from the above mentioned authors in Siepmann, Part III., and the exercises thereon, with the exception of (1) those marked V. Free Composition, pp. 143—219, (2) the test papers in composition, pp. 259—265, and (3) the passages for translation into French, pp. 266—270. Siepmann's Short French Grammar should be used in conjunction with Part III., and special attention paid to the accidence and syntax of the verb. In using the exercises in Part III. attention will be paid to the following:—Conjugation of verbs, transitive and intransitive verbs, verbs conjugated with être, agreement of verbs, ordinary uses of tenses, common uses of subjunctive, agreement of past participle, use of pure infinitive, everyday uses of infinitive and à and with de.

(*c*) *Conversation.*—Practice in conversation will be based on Andre Laurie. "Une année de collège à Paris." (Macmillan). Students should procure W. E. Weber's Cahier français de notes diverses (Cambridge University Press).

**German.**

(*a*) *Composition, Conversation, etc.*—Pope, Writing and Speaking German, Part I. (Holt).

(*b*) *Reading.*—Storm, Immensee (Holt); Keller, Legenden (Holt); Moser, Der Bibliothekar (Ginn); Freytag, Die Journalisten (Ginn).

**Greek.**

All students taking a Greek course are recommended to provide themselves with Allen's Elementary Greek Grammar; Liddell & Scott's Greek Lexicon (abridged); Classical Atlas (Everyman's Library); Smith's Smaller Classical Dictionary (Everyman's Library).

*Lectures.*—Lucian, Extracts (Bond & Walpole, Macmillan); Euripides, Alcestis (Blakeney, Bell's Illustrated Classics).

*Composition and Grammar.*—White's First Greek Book (Copp, Clark Co.)

*History.*—Athenian Empire (Cox, Epoch Series, Longmans).

**Latin.**

*Texts.—For* 1919 *and alternate years.—*

Cicero, De Senectute (Warman, Bell & Sons).
Virgil, Georgic IV. (Page, Macmillan).
Ovid, Elegiac Selections (Smith, Bell & Sons).

*For* 1920 *and alternate years,*

Cicero, Pro Lege Manila (W. J. Woodhouse, Copp Clark Co., Ltd.)
Virgil, Aeneid II. and IV. (Page, Macmillan).

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

*History.*—Outlines of Roman History to 133 B.C. (Pelham, Rivingtons).

Two papers of three hours each.

## 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 has previously studied, together with a complete statement of the course he has followed and a certificate of the standing gained therein. The Faculty will determine the standing of such a student in this University.

## AGE OF ADMISSION.

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

## REGISTRATION AND ATTENDANCE.

### 1. Registration.

APPLICATION FOR ADMISSION

*Those who intend to register as students of the University for the Session* 1918-19 *are required to make application to the Registrar at least two weeks before the beginning of lectures, on forms to be obtained from the Registrar's Office.*

Between September 16th and September 20th, both dates inclusive, students may register for the Session 1918-19 at the office of the Registrar. Friday, September 20th, will be the last day of registration for all students. Lectures will commence on Wednesday, September 25th. The complete regulations regarding registration follow:—

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:—

"I hereby accept and submit myself to the statutes, rules, regulations, and ordinances of the University of British Columbia, 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 for any reason have failed to register within the time specified above will be permitted to do so within a limited time thereafter, but only on payment of a fee of $2 for late registration.

3. 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 will be dealt with by the Faculty.

4. The names of those who have registered for separate classes will 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 will 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.

5. Students desiring to make a change in their choice of studies must make application to the Registrar. This application

must be approved by the Committee on Courses, 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.

6. Persons who wish to pursue courses in the University without a view to qualifying for a degree will 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 Committee.

7. 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.

### II. Attendance.

1. Students are required to attend at least seven-eighths of the total number of lectures in each 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, but may sit for supplemental examination; those, however, 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 will be dealt with only by the Dean. *Medical certificates must be presented immediately on return to University work.*

2. A record will be kept by each professor or lecturer, in which the presence or absence of students will be carefully noted. This record will be submitted to the Faculty when required.

3. Credit for attendance at 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.

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 Year 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 Committee on Courses) 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 5th and January 14th. After these dates an additional fee of $2 will be exacted of all students in default.

2. Immediately after October 15th the Registrar shall send to the Instructors a list of the students applying for a course 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 readmitted to any class except on presentation of a special ticket, signed by the Registrar, certifying to the payment of fees.

Students registering after October 5th shall pay their fees at the time of registration, failing which they become subject to the provisions of Regulation 2.

The sessional fees are:—

| | |
|---|---|
| Registration | $10 00 |
| Alma Mater | 4 00 |
| Caution | 5 00 |

All students are required to pay a registration fee annually of $10.

At the request of the students themselves, and by the authority of the Board of Governors of the University, $4 additional will be exacted from all students for the Alma Mater Society.

A deposit of $5 as caution-money is required from each student. The deposit is returned at the end of the session, after deductions have been made to cover breakages, wastage, and use of special materials in laboratories, etc. In case the balance of the deposit remaining to the credit of a student falls below $1.50, a second deposit of $5 may be required.

Special fees are:—

| | |
|---|---|
| A regular supplemental examination in any course, or part of a course in which separate examinations are held | $ 5 00 |
| Fee for special examination in any subject | 7 50 |
| Graduation fee | 20 00 |

## PRIZES, MEDALS, AND SCHOLARSHIPS.

1. General Proficiency Scholarships are open to candidates in both the Faculties of Arts and Applied Science.

2. No scholarship, medal, or prize will be awarded to any candidate who has failed to take 75 per cent. of the marks obtainable in the subject or subjects to which the award is attached.

3. No candidate will be permitted to hold more than one scholarship, but any one who would but for this provision have been entitled to a second scholarship will have his name published in the lists.

4. When the scholarship cannot be awarded for this reason to the candidate obtaining the highest number of marks, it will be granted to the candidate ranking second, provided the requisite number of marks has been obtained.

5. All winners of scholarships must attend lectures for the academic year immediately following the award. The Faculty may, upon satisfactory reasons being shown, permit a scholar to postpone attendance for a year. If at the end of a year a further postponement is necessary, special application must again be made. In every such case the payment of scholarship will be postponed in like manner.

6. The scholarships will be paid in three instalments during the session following their award, on the 15th of November, the 15th of January, and the 15th of March, and each scholar is required to send to the Registrar a certificate of attendance upon lectures at least three days before the date of each payment.

7. Winners of scholarships who desire to do so may resign the monetary value, while the appearance of their names in the University lists enables them to retain the honour. Any funds thus made available will be used for additional scholarships or student loans.

8. Scholarships, medals, and prizes will be awarded at the close of the session, and in case of Matriculation Examinations, after the June examination.

For 1919 the following scholarships, prizes, and medals will be offered:—

## ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING OF BRITISH COLUMBIA SCHOLARSHIPS AND LOANS.

### (a.) Junior Matriculation Scholarships.

Seven General Proficiency Scholarships will be awarded on the

result of the Junior Matriculation Examinations, 1919.

A. One of $150 to be awarded to the British Columbia candidate for matriculation who obtains the highest standing.

B. Six of $100 each, one for each of the following districts, to be awarded to the candidate from each of such districts who obtains the highest standing among the candidates from the district:—

1. Victoria District.
2. Vancouver Island (exclusive of Victoria District) and Northern Mainland.
3. Vancouver District.
4. Fraser Delta (exclusive of Vancouver District, but including Agassiz).
5. Yale.
6. Kootenays.

NOTE.—*In the district from which the winner of A comes, B will be awarded to the candidate standing second.*

### (b.) First-year Scholarships.

Four scholarships of $75 each (three in Arts and one in Applied Science) will be awarded for general proficiency in the work of the First Year.

### (c.) Student Loans.

A fund is provided from which a loan not to exceed $100 may be made to a deserving student who is in need of pecuniary assistance. Application for such a loan will be addressed to the President on a form which will be supplied by the Registrar.

## SUGGESTED LOCAL SCHOLARSHIPS

The number of Junior Matriculation scholarships offered at present is quite inadequate to the needs of the Province, and opportunity is here taken to recommend a scheme for adding to their number.

This scheme is the establishment of local or district University Entrance Scholarships by City or Municipal Councils or other public bodies, as well as by private benefactors. These scholarships would be awarded by a local authority, the University reserving to itself the right of confirmation.

In the award of such scholarships, standing in the Matriculation Examination, while important, need not be the only consideration; it is desirable that regard should be had also to financial circumstances, character, and intellectual promise.

In the large universities, both of Great Britain and the United States, such district scholarships have proved a strong bond between the community and the University, have brought the University close to the life of the young, and opened up the prospect of a university education to many who would not otherwise have contemplated it.

Scholarships may be offered to students taking a particular course; in this way the study of such sciences and technical branches of knowledge as have a bearing on the industries of the district will be encouraged and native sons prepared to assist in developing the resources of the Province.

The scheme has great possibilities both for the growth of the University and the prosperity of the Province, and it is earnestly recommended to consideration.

## UNIVERSITY SCHOLARSHIPS, etc.

1. A Fellowship of the value of $200 may be awarded to a graduate student who shows special aptitude for post-graduate studies. (Application to be made not later than May 15).

2. Two Scholarships in Arts of $75 each will be awarded to students proceeding to the Fourth Year, the award to be based on the work of the Third Year.

3. Three scholarships (two in Arts and one in Applied Science) of $75 each will be awarded to students proceeding to the Third Year, the award to be based on the work of the Second Year.

4. A Scholarship in Agriculture of $75 will be awarded to a student proceeding to the Second Year, the award to be based on the work of the First Year.

5. Two scholarships of $75 each may be awarded to returned soldiers taking the work of the First Year, the award to be based on the work of the year.

6. The scholarships mentioned in the above sections will be awarded for general proficiency in the work of the respective years.

7. Two book prizes of the value of $25 each, open to all students of the University, will be awarded for essays on special subjects, one literary and one historical or economic, to be announced at the beginning of the session.

### SIR THOMAS TAYLOR PRIZES.

Two prizes of $25. Presented by the late Sir Thomas Taylor (Session 1916-17) for essays on literary and economic subjects.

### THE GOVERNOR-GENERAL'S MEDAL.

A gold medal, presented by His Royal Highness the Governor-General of Canada, will be awarded to the Arts student standing at the head of the graduating class.

### THE RHODES SCHOLARSHIP.

In addition to the above scholarships, the University will award the Rhodes Scholarship assigned by the trustees of the late Mr. Cecil J. Rhodes to the Province of British Columbia.

The following are excerpts from the regulations laid down by the trustees:—

The election of scholars in Canada under the Rhodes bequest will take place each year during the month of January. The scholars will begin residence at Oxford in October of the year for which they are elected.

Each scholarship is tenable for three years, and is of the value of £300 per annum.

Candidates shall be British subjects and unmarried. They must have passed their nineteenth but not their twenty-fifth birthday on October 1st of the year for which they are elected.

An elected scholar must have reached at least the end of his sophomore or second year's work at some recognized degree-granting university or college of Canada.

Candidates may elect whether they will apply for the scholarship of the Province in which they have acquired any considerable part of their educational qualification, or that of the Province in which they have their ordinary domicile, home or residence. They must be prepared to present themselves for examination or election in the Province they select. No candidate may compete in more than one Province, either in the same or in successive years.

Only candidates who have passed an equivalent to the Oxford Responsions Examination or those who are exempted from Responsions by the Colonial Universities' Statute are eligible for election.

In accordance with the wish of Mr. Rhodes, the trustees desire that "in the election of a student to a scholarship regard shall be had to (i) his literary and scholastic attainments; (ii) his fondness for and success in manly outdoor sports, such as cricket, football, and the like; (iii) his qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness, and fellowship; and (iv) his exhibition during school-days of moral force of character and of instincts to lead and to take an interest in his schoolmates." Mr. Rhodes suggested that (ii) and (iii) should be decided in any school or college by the votes of fellow-students, and (iv) by the head of the school or college.

Additional information will be furnished to intending candidates on application to the President of the University.

The Committee by whom the Rhodes scholar is elected is at present constituted as follows:—

President Wesbrook; Dean Klinck; Dean Robinson; Dr. Alexander Robinson (Superintendent of Education); and Chief Justice Hunter.

## INFORMATION FOR STUDENTS IN ARTS.

### Courses Leading to the Degree of B.A.

The degree of B.A. is granted only after four sessions of class-room work from Junior Matriculation. Students who enter with Senior Matriculation may complete their course in three years.

A double course leading to the degrees of B. A. and B.Sc. (Applied Science) is offered. Information regarding this course may be obtained from the Registrar.

The curriculum as laid down in the following pages may be changed from time to time as deemed advisable by the Faculty.

The Courses in Arts are arranged on the Unit System.

*Definition of a Unit.*—A unit is one lecture hour, or one labor-

atory period of not less than two or more than three hours, such period to be continuous.

Each course of the First and Second Years consists of (a) a pass course of three units, and (b) a supplementary course for distinction of one unit.

Students seeking First Class Standing in any subject are required to take the distinction course in that subject.

All students of the First and Second Years are required to take five courses, two of which must be Distinction Courses; and the minimum for each of the first two years is seventeen units.

### FIRST YEAR.

I.—English 1 and 2, History 1.

II.—Mathematics 1.

III.—Physics 1.

IV., V.—Two of the following, of which one at least must be a language: Chemistry 1, French 1, German 1, Greek 1, Latin 1, Biology 1, Geology 1.

NOTE.—*Students may elect three foreign languages, substituting one of these for either Mathematics or Physics.*

### SECOND YEAR.

I.—English 3, 4.

II.—French 2; or German 2; or Greek 2; or Latin 2.

The language must have been taken in the First Year.

III.—One subject from each of *three* of the following groups:

(*a*) Another language from II., if taken in the First Year.

(*b*) Chemistry 1 or 2; Geology 1 or 3 or 4 or 5, or a third language which must have been taken in the First Year.

(*c*) Physics 2; Philosophy 1.

(*d*) History (a full course); Economics 1 (full course).

(*e*) Mathematics 2; Biology 1, or (Botany and Zoology).

### THIRD AND FOURTH YEARS.

All students should select, before the end of March of their Second Year, the subjects to which they wish to give special

attention during their Third and Fourth Years. In order that each student shall do a considerable amount of connected work in some one subject without erring on the side of too narrow specialization, a group system of courses has been adopted. The groups, which are as follows, include all subjects open to candidates for the B.A. degree:—

*Group I.*—Agriculture; Bacteriology; Biology; Chemistry; Geology and Mineralogy; Physics.

*Group II.*—English; French; German; Greek; Latin; Spanish.

*Group III.*—Economcis; History; Mathematics; Philosophy.

In each of the Third and Fourth Years students are required to take at least fifteen units.

One subject taken in the Second Year must be continued through the Third and Fourth Years to the extent of not less than eight units in the last two years. The head of the department concerned should be consulted with a view to arranging a well-balanced course.

Of the remaining twenty-two units, four at least must be chosen from each of the other two groups.

When courses of the Second Year are elected by Third and Fourth Year students, the distinction hour in such courses shall become obligatory upon such students.

| | Units |
|---|---|
| Agriculture | 2 |
| Bacteriology, 1 | 2 |
| " 2 | 2 |
| Botany, 1 | 2 |
| " 2 | 2 |
| Chemistry, 2 | 3 |
| " 3 | 3 |
| " 4 | 1 |
| " 5 | 3 |
| " 6 | 2 |
| " 7 | 3 |
| " 8 | 1 |
| " 9 | 2 |
| Economics, 1 | 3 |
| " 2 | 3 |

| | |
|---|---|
| Economics, 3 | 2 |
| " 4 | 2 |
| " 5 | 2 |
| " 6 | 2 |
| English, 5, | 2 |
| " 6 | 2 |
| " 7* | 1 |
| " 8 | 3 |
| " 9 | 2 |
| " 10 | 2 |
| French, 2 | 3 |
| " 3 | 4 |
| " 4 | 3 |
| Geology, 2 | 4 |
| " 3 | 2 |
| " 4 | 3 |
| German, 2 | 3 |
| " 3 | 4 |
| Greek, 2 | 3 |
| " 3 | 4 |
| History, 3 | 2 |
| " 4 | 4 |
| Latin, 2 | 3 |
| " 3 | 4 |
| " 4 | 4 |
| Mathematics, 3 | 4 |
| " 4 | 4 |
| Mineralogy, 1 | 3 |
| " 2, and Geology 2 | 3 |
| Philosophy, 2 | 4 |
| Physics, 2 | 3 |
| " 3 | 3 |
| " 4 | 3 |
| Spanish | 3 |
| Zoology 1 | 2 |
| " 4 | 2 |

*This course must be taken by all students of the Third Year.

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No credit will be given for a First Year language taken in the Third Year unless it is continued in the Fourth Year.

## EXAMINATIONS IN ARTS.

1. There are two examinations in each year—one at Christmas and the other at the end of the session. Successful students are arranged in three classes as follows: First class, those who obtain 80 per cent. or more; Second class, 65 to 80 per cent.; Passed, below 65 per cent.

Christmas examinations will be held in all subjects, and are obligatory for all students.

*Any student whose record is found to be unsatisfactory may at any time be required to withdraw from the University.*

2. The following are the regulations for advancement to the Second, Third, and Fourth Years of the undergraduate course:—

*Advancement to the Second Year.*—In order that a student may proceed to the Second Year of his course, he must have completed his Matriculation, and have passed in all, or all but one, of the subjects of the preceding year, but may not continue in the Second Year the subject in which he has failed to make good his standing, except in the cases of compulsory subjects for the Second Year.

*Advancement to the Third Year.*—In order that a student may proceed to the Third Year, he must have completed his First, and have passed in all, or all but one, of the subjects of the preceding year, but he may not continue the subject in which he has failed to make good his standing.

*Advancement to the Fourth Year.*—In order that a student may proceed to the Fourth Year, he must have completed all the subjects of the preceding years.

N.B.—A conditioned student will not be allowed to continue the subject in which he is conditioned, unless it is a compulsory subject.

*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.*) And if so exempted, 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 $7.50.

4. A list of those to whom the Faculty has granted supplemental examinations in the following September will be published after the sessional examinations.

5. *Applications for supplemental examinations,* accompanied by the necessary fees, should be in the hands of the Registrar at least two weeks before the date set for the examinations.

## COURSES IN ARTS.

### DEPARTMENT OF AGRICULTURE.

Professor: Leonard S. Klinck, M.S.A.

**The Scientific Basis of Agriculture.**

This course has been designed to familiarize the student with the basic principles underlying scientific agriculture.

Four lectures per week during the First Term.

### Department of Bacteriology.

R. H. Mullin, B.A., M.B.

**Bacteriology I.**

A course of General Bacteriology, consisting of lectures, demonstrations, and laboratory work.

The history of bacteriology, the place of bacteria in nature, the classification of bacterial forms, methods of culture and isolation, and various bactericidal substances and conditions will be studied.

Chemistry I. and Biology I. are prerequisites. On account of limitations of laboratory facilities not more than fifteen students can be admitted to this course.

Seven hours a week, including laboratory work, during the second term.

**Bacteriology II.**

A course of Special Bacteriology consisting of lectures, demonstrations and laboratory work.

The more common pathogenic bacteria will be studied together with the reaction of the animal body against invasion by these bacteria. The course will include studies in immunity and the various diagnostic methods in use in public health laboratories.

Seven hours a week including laboratory work during the first term.

## DEPARTMENT OF BOTANY AND ZOOLOGY.

Assistant Professor: A. H. Hutchinson, M.A., Ph.D.

Instructor in Charge of Herbarium and Botanical Garden: Jno. Davidson, F.L.S., F.B.S.E.

**Biology.**

1. *General Biology.*—The course is introductory to more advanced work in Botany or Zoology; also to courses closely related to Biological Science such as Agriculture, Forestry, Medicine.

The fundamental principles of Biology; the inter-relationships of plants and animals; life processes; the cell and division of labor; life histories; relation to environment.

The course is prerequisite to all other courses in Biology.

Pass course—two hours lecture and two hours laboratory work per week.

Distinction course—an additional two hours per week laboratory work. First Term.

Reference Book.—Smallwood—Text Book of Biology.

Second Term—Biology I. shall be supplemented by Botany (a) or Zoology 1, which may be chosen in accord with course to be pursued.

**Botany.**

(*a.*) *Economic Botany.*—Plant requirements; plant products; plant diseases; plant breeding; forest ecology; life histories of economic plants.

Pass course—two hours lecture and two hours laboratory work per week.

Distinction course—an additional two hours per week laboratory work. Second Term.

1. *Morphology.*—(a) General morphology of plants. A comparative study of plant structures. The relationships of plant groups. Comparative life-histories. Emphasis is placed upon the increasing complexity of plant structures, from the lower to the higher forms, involving a progressive differentiation accompanied by an interdependence of parts.

Pass course—two hours lecture and two hours laboratory work per week. Distinction course—an additional two hours laboratory work. Second Term.

Reference Book: Coulter Barnes and Cowles. Text Book of Botany, Vol. 1.

2. *Histology.*—The growth and development of plant structures; methods of killing, fixing, embedding, sectioning, staining, mounting, drawing, reconstructing. Use of microscope and camera lucida.

Seven hours per week First Term.

**Zoology.**

1. *Morphology.*—General Morphology of animals. Comparative anatomy. The relationships of animal groups. Comparative life histories.

Pass course: Two hours lecture and two hours laboratory work per week. Distinction course: An additional two hours laboratory work per week.

2. *Histology.*—Study of the structure and development of animal tissues. Methods in histology.

Seven hours per week, First Term.

3. *Embryology.*—A general survey of the principles of embryology, including Invertebrates and Vertebrates. Preparation and examination of embryological sections.

Seven hours per week, First Term.

Reference Book: McBride, Text Book of Embryology.

## DEPARTMENT OF CHEMISTRY.

Professor: D. McIntosh, M.A., D. Sc., F.R.S.C.

Associate Professor: E. H. Archibald, M.A., Ph.D., F.RSE.

Assistant Professor: R. H. Clark, M.A., Ph.D.

1. *General Chemistry.*—This course is arranged to give a full exposition of the general principles involved in modern Chemistry, and comprises a systematic study of the properties of the more important metallic and non-metallic elements and their compounds, and the application of Chemistry in technology.

Book recommended: Inorganic Chemistry (Alexander Smith; Century Co.)

Two lectures and one laboratory periods of three hours each a week. For Distinction an additional hour is required.

2. *Qualitative and Quantitative Analysis.*

(*a.*) *Qualitative Analysis.*—A course consisting of one hour of lecture or recitation and six hours of laboratory work each week throughout the First Term. During the first six weeks of the term an additional hour of lecture or recitation may be substituted for a part of the laboratory work.

(*b.*) *Quantitative Analysis.*—A course consisting of one hour of lecture or recitation and six hours of laboratory work each week throughout the Second Term. The course embraces the more important methods of gravimetric and volumetric analysis.

Course (*b*) must be preceded by Course(*a*).

Books recommended: Noyes' Qualitative Analysis; Cumming & Kay's Quantitative Analysis.

For Distinction an additional laboratory period is required.

3. *Organic Chemistry.*—This introduction to the study of the compounds of carbon will include the methods of preparation and a description of the properties of the more important groups and compounds in both the fatty and the aromatic series. Two lectures and one laboratory period of three hours weekly.

(3). Will only be given to those students taking No. 2, or those who have had the equivalent of (2).

Books recommended: Holleman-Walker, Text-book of Organic Chemistry; Gatterman, The Practical Methods of Organic Chemistry.

4. *Theoretical Chemistry.*—An introductory course on the development of modern Chemistry, including osmotic phenomena, the ionization theory, the law of mass action, and the phase rule.

Two lectures a week during the Second Term.

Text-book: James Walker, Introduction to Physical Chemistry.

5. *Advanced Qualitative and Quantitative Analysis.*

(*a.*) *Qualitative Analysis.*—One lecture and six hours in the laboratory throughout the First Term. The work of this course will include the detection and separation of the less common metals, particularly those that are important industrially, together with the analysis of somewhat complex substances occurring naturally.

(*b.*) *Quantitative Analysis.*—One lecture and six hours laboratory work per week during the Second Term. The determinations made will include the more difficult estimations in the analysis of rocks, as well as certain constituents of steel and alloys. The principles on which analytical chemistry is based will receive a more minute consideration than was possible in the elementary course.

Prerequisite: (2).

6. *Industrial Chemistry.*—Two hours of lectures per week throughout the year. These industries, which are dependent on the facts and principles of Chemistry, will be considered in as much detail as time will permit. The lectures will be supplemented by visits to manufacturing establishments in the neighbourhood, and it is hoped that some lectures will be given by specialists in their respective fields.

Prerequisites: (2) and (3).

7. *Physical Chemistry.*—The lectures, which are a continuation of those given in (4), include the kinetic theory of gases,

thermo-chemistry, the application of the principles of thermo-dynamics to Chemistry, osmotic phenomena, applications of the dissociation theory, colloidal solutions, and a study of the physical properties of gases, liquids, and solids and of their chemical constitutions.

Two lectures and one laboratory period of three hours weekly throughout the year. Prerequisites: (2), (3), and (4).

Text-books: Bigelow, Physical Chemistry; Findlay, Physico-Chemical Measurements.

For reference: Ramsay's Series of Books on Physical Chemistry.

8. Applied Electro-Chemistry.—Solutions are studied from the standpoint of the osmotic and the dissociation theories. The laws of electrolysis, electroplating, primary and secondary batteries, and the preparation of the elements and compounds by electrolytic methods and in the electric furnace are studied.

Two lectures weekly during the First Term.

For reference: Le Blanc, Elements of Electro-Chemistry; Thompson, Applied Electro-Chemistry; and Stanfield, the Electric Furnace.

9. *Advanced Organic Chemistry.*—Stereochemical theories will be discussed, and chemical and physico-chemical methods employed in determining the constitution of organic compounds will be studied.

The laboratory work will be arranged as far as possible to suit the requirements of the individual student. It will consist in the preparations of more complex substances than those made in (3) and special work in drug and food analysis.

One lecture and one laboratory period per week throughout the year.

## DEPARTMENT OF CLASSICS.

Associate Professor: Lemuel F. Robertson, M.A.
Associate Professor: S. J. Willis, B.A.
Instructor: H. T Logan, B.A. (on overseas service).

### Greek.

All students taking a Greek course are recommended to provide themselves with Allen's Elementary Greek Grammar; Liddell & Scott's Greek Lexicon (abridged); Classical Atlas

(Everyman's Library); Smith's Smaller Classical Dictionary (Everyman's Library).

1. *Lectures.*—Lucian, Extracts (Bond & Walpole, Macmillan); Euripides, Bacchae, (Gwyther, Bell's Illustrated Classics).

Composition and Grammar: White's First Greek Book (Copp. Clark Co.)

History: Athenian Empire (Cox, Epoch Series, Longmans).

Four hours a week.

2. *Lectures.*—Plato, Apology (Adam, Elementary Classics, Cambridge); Aeschylus, Prometheus Vinctus (Rackham, Cambridge Univ. Press).

Composition (North and Hillard): Selected passages will occasionally be set for Unseen Translation.

History: Spartan and Theban Supremacies (Sankey, Epoch Series, Longmans).

Four hours a week.

3. *Lectures.*—Thucydides, Book VII. (E. C. Marchant, Macmillan); Sophocles, Philoctetes (Jebb & Shuckburgh, Cambridge Univ. Press); Odyssey, I.-XII. (Merry, Clarendon Press). Selections to be read in class.

History: Bury's Greek History (Second Edition, 1913), Chapters XII.-XVII.

Composition: Passages to be selected.

**Latin.**

All students taking Latin are expected to provide themselves with a grammar, a Latin-English dictionary, a classical dictionary, and an atlas of Ancient Geography. The following are recommended: Lewis' School Dictionary, or White's Junior Students' Latin-English Dictionary; "Everyman's" Classical Atlas (Dent); Smith's Smaller Classical Dictionary ("Everyman's" Library, Dent).

1. *Lectures.*—Cicero, De Senectute (Warman, Bell & Sons); Virgil, Georgic IV. (Page, Macmillan & Co.)

Composition: Latin Composition (Mitchell, Macmillan's Canadian School Series), from page 50 to the end.

History: Outlines of Roman History (Pelham, Rivingtons) to 133 B.C.

Three hours a week.

Distinction Course: Ovid, Elegiac Selections (Smith, Bell & Sons); Cicero, Ninth Philippic, Select Orations, King (Clarendon Press).

One hour a week.

2. *Lectures.*—Cicero, Pro Archia (Reid, Pitt Press); Livy, Hannibal's First Campaign in Italy (Bell & Sons); Virgil, Aeneid, Bk. VI (Page, Macmillan).

Composition: Bradley's Arnold's Latin Prose Composition (Longmans, Green & Co.), 32 exercises.

History: Outlines of Roman History (Pelham, Rivingtons), from 133 B.C. to 69 A.D.

Three hours a week.

Distinction Course: Horace, Wickham's Selected Odes (Clarendon Press), Virgil, Aeneid IV. (Stephenson, Macmillan).

One hour a week.

3. *Lectures.*—Tacitus, Agricola (Church & Brodribb, Macmillan & Co.); Terence, Phormio (A. Sloman, Clarendon Press); Seneca, Three Dialogues, Books X., XI., XII. (J. D. Duff, Cambridge Press).

Composition: Bradley's Arnold's Latin Prose Composition, Exercises XXXII. to the end; also selected passages based on Tacitus.

History: Pelham, Outlines of Roman History, B.C. 133 to A.D. 476 (Rivingtons).

Translation at Sight: Rivingtons' Latin Unseens, Book VII.

Four hours a week.

4. *Lectures.*—Virgil, Georgics I.-IV. (T. E. Page, Macmillan & Co.); Livy, Book V. (Whibley, Pitt Press).

*This Course is open only to students who are taking Course* 3.

Two hours a week.

## DEPARTMENT OF ECONOMICS, SOCIOLOGY, AND POLITICAL SCIENCE.

Assistant Professor: Theodore H. Boggs, M.A., Ph.D.

### Economics.

1. *Principles of Economics.*—An introductory study of general

economic theory including a survey of the principles of value, prices, money and banking, international trade, tariffs, monopoly, taxation, labour and wages, the control of railways and trusts, etc. (Ely and Wicker's "Elementary Principles of Economics" and Tanssig's "Principles of Economics.")

Economics 1 is the prerequisite for all other Courses in the Department, but may be taken concurrently with Economics 2, or Government 1, or Sociology 1.

Pass Course: Three hours. Distinction work: One additional hour.

2. *Political and Economic Conditions within the Empire.*—A review of the governments of the British dominions and of suggested plans for the political reorganization of the empire, during the First Term; to be followed, in the Second Term, by a survey of the resources, industries, commerce, and tariffs of Britain and the dominions.

(Curtis' "The Problem of the Commonwealth," Jebb's "The Britannic Question," and Drage's "The Imperial Organization of trade.")

Three hours a week.

3. *Labour Problems and Social Reform.*—A study of the rise of the factory system and capitalistic production, and of the more important phases of trade unionism in England, Canada and the United States. A critical analysis of various solutions of the labour problem attempted and proposed; profit-sharing, co-operation, arbitration and conciliation, scientific management, labour legislation, and socialism.

Adams' and Sumner's "Labour Problems," Skelton's "Socialism; A Critical Analysis," and Spargo and Arner's "Elements of Socialism.")

Two hours a week.

Not given in 1918-19.

4. *Money and Banking.*—The origin and development of money. Banking principles and operations, laws of coinage, credit, price movements, foreign exchange. Banking policy in the leading countries, with particular reference to Canada.

(Phillips' "Readings in Money and Banking," Foster's "Banking," and Johnson's "Report on the Canadian Banking System.")

Two hours a week.

Not given in 1918-19.

5. *Public Finance.*—This course deals with public revenues and expenditures and the administration of public funds. Some of the topics discussed are: theories of just taxation, progressive taxation, the shifting and incidence of taxation, the internal revenue system, tariffs on imports, the general property tax, income and inheritance taxes, the single tax. Particular attention is devoted to the taxation systems (federal, provincial, and local) of Canada.

(Seligman's "Essays in Taxation" and Vineberg's "Provincial and Local Taxation in Canada.")

Two hours a week.

6. *Corporation Economics.*—Historical development of the different forms of industrial organization, including the partnership, joint-stock company, and the corporation, and the later developments, such as the pool, trust, combination, and holding company. Methods of promotion and financing, over-capitalization, stock market activities, the public policy toward corporations, etc.

(Haney's "Business Organization and Combination," and Walker's "Corporation Finance.")

Two hours a week.

**Government.**

1. *Constitutional Government.*—Following a preliminary survey of the origin of political institutions a detailed study is made of the structure, functions, and actual working of the governments of Canada, Great Britain, the United States, and other countries. A comparative study as well of the parties of these countries .

(Leacock, "Elements of Political Science" and assigned readings in other texts.)

Two hours a week.

Not given in 1918-19.

**Sociology.**

1. *Principles of Sociology.*—An introductory study of early man and his relation to his environment; of races of men and

their distribution; of the early forms and development of the industrial organization, marriage and the family, the arts and sciences, religious systems, government, classes, rights, etc. A review also of certain of the social problems of modern society growing out of destitution, crime, overcrowding, etc. A critical survey of schemes for betterment.

(Fairbanks' "Introduction to Sociology" and Fairchild's "Applied Sociology.")

Two hours a week.

Not given in 1918-19.

## DEPARTMENT OF ENGLISH.

Assistant Professor: J. K. Henry, B.A.
Assistant Professor: F. G. C. Wood, M.A.

1. *Literature.*—Halleck's History of English Literature, new edition (American Book Company), pages 1-255, with such illustrations as time will permit, and the following readings: Chaucer's "Prologue" to the Canterbury Tales; Spenser's "Faerie Queene," Book I.; Selections; Bacon's "Essays"; Milton's "Comus" (Macmillan's Pocket Classics).

Two hours a week.

2. *Composition.*—Fundamental principles; fortnightly essays, which will be taken into consideration in determining the standing of students at the end of the term.

One hour a week.

3. *Literature.*—The Romantic Movement of the Eighteenth and Nineteenth Centuries in Prose and Poetry; Victorian Literature.

Texts: (*a.*) Poetry, Ward's English Poets, Vols. 3 and 4 (Macmillan's Students' Edition). Two hours a week. (*b.*) Prose (Everyman's Library mostly), Lamb's "Essays of Elia"; Hazlitt, "The Prize Fight"; "People of One Idea"; "On Sitting for One's Picture"; and "Will-Making"; De Quincey's "Confessions"; Landor's "Imaginary Conversations" (a few selections); Carlyle's "Sartor Resartus"; Borrow's "Lavengro"; Ruskin, portions of "Modern Painters" and "Munera Pulveris"; Macaulay's "Essay on History"; George Eliot's "Adam Bede";

Stevenson's "Virginibus Puerisque." One hour a week for students seeking distinction.

4. *Composition.*—Principles of Narration, Description, Exposition, and Argumentation. Fortnightly essays will be required, and will be taken into consideration in determining the standing of students.

One hour a week.

5. *The Drama.*—The course begins with a short study of one or two of the plays of Sophocles and an outline and development of Aristotle's dramatic criticisms, but deals mainly with the rise and development of the Elizabethan Drama, Liturgical, Miracle, and Morality Plays; Interludes; Influence of the Roman Stage; Shakespeare's predecessors—Lyly, Kyd, Green, Peele, Marlowe; Shakespeare's "Henry VI.," Pts. I. and II.; "Love's Labour's Lost"; "A Midsummer Night's Dream"; "Romeo and Juliet"; "As You Like It"; "Henry V."; "Hamlet"; "Macbeth"; and "The Tempest."

Texts (Everyman's Library): The Plays of Sophocles; Everyman: Minor Elizabethan Dramatists (two vols.); Marlowe's Plays. Students should purchase the Oxford Shakespeare (Craig).

Two hours a week.

Not given 1918-19.

6. *Tennyson and Browning.*—Representative Thinkers of the Victorian Period.

Tennyson: (*a.*) "In Memoriam," a detailed study of its various cycles of thought. (*b.*) "The Idylls of the King." Students are expected to read Swinburne's "The Tale of Belen," "Tristram of Lyonesse," and parts of Malory's "Morte d'Arthur."

Browning: The greater part of Browning's poems will be discussed with the purpose of illustrating his qualities as a poet and a philosopher. Browning's Complete Poetical Works (one volume, Cambridge edition) is required.

Two hours a week.

7. *English Composition.*" — An advanced course on English Composition, including style, methods, and principles of literary criticism. Criticism will also be examined from the historical

point of view. In connection with this course students will read a few prescribed texts. Essays at stated periods are required of all.

One hour a week.

Books of reference: Winchester's "Principles of Literary Criticism"; Saintsbury's "History of Criticism"; Arnold's "Essays in Criticism."

8. *The English Novel from Richardson to the Present Time.*—The development of English fiction will be traced from Richardson, Fielding, Smollett, and Sterne through Goldsmith, Mrs. Radcliffe, Jane Austen, Scott, C. Bronte, Dickens, Thackeray, George Eliot to Trollope, Meredith, Stevenson, and a few representative English novelists now living.

A fair knowledge of the important works of Jane Austen, Scott, Dickens, Thackeray, and George Eliot is a prerequisite for those taking this course.

Three hours a week.

9. *Milton and Shakespeare.*—(*a.*) Milton's Prose and Poetry. "Areopagitica" (Cotterill, Macmillan & Co.); "Samson Agonistes" and "Paradise Lost" (Oxford Poets, Clarendon Press.)

(*b.*) Two Plays of Shakespeare: A detailed study of the text of "King Lear" and "Henry IV.," Part I. The purpose of this course is to familiarize the student with the language of Shakespeare, as well as to study his methods in tragedy and comedy.

Two hours a week.

Not given 1918-19.

10. *English Drama Since* 1600.—A survey of English drama from the time of Ben Jonson to the present. Later Elizabethan drama, representative plays of the Restoration, the works of Goldsmith, Sheridan, and of early Nineteenth Century writers will be considered. This will be followed by a study of some dramatists of recent years, including Wilde, Shaw, Galsworthy, Pinero, Jones, Stephen Phillips, Barrie, and the Irish School.

Two hours a week.

## DEPARTMENT OF GEOLOGY AND MINERALOGY.

Professor: Reginald W. Brock, M.A., F.R.S.C. (on overseas service).

Acting Professor: Stuart J. Schofield, M. A., B.Sc., Ph.D. (on overseas service).

Assistant Professor: Edwin T. Hodge, M.A., Ph.D.

1. *Elements of Geology.*—Three hours lecture throughout the session.

The lectures deal with the most common minerals and rocks and the structure of the earth; work of the air, water, living creatures, and internal forces in modifying the earth; vulcanism, history of the earth and its plants and animals; geology and physiography of North America.

Supplementary Distinction Course: Three hours. Laboratory practice in methods for the recognition of the most important minerals and rocks; study of maps, models, and specimens illustrating geologic facts and their interpretation.

Text: Geology, Physical and Historical, by H. F. Cleland.

Prerequisite: One year of High School or University Chemistry or Physics. This course is open only to First and Second Year students.

2. *General Geology.*—Three hours lecture and three hours laboratory work throughout the session.

This course takes up in a more intensive manner the same subject matter as (1) Elements of Geology.

Text: Text-book of Geology, by Pirsson and Schuchert.

Prerequisite: One year of University Chemistry or Biology or Physics. This course is open only to Third and Fourth Year students.

3. *General Mineralogy.*—Two lectures and a laboratory period of two hours throughout the session.

Lectures: Physical and chemical properties of minerals, crystallography, description of minerals and a discussion of their occurrence, association, genesis, and uses in the industrial arts.

Laboratory: Practice in the determination of the physical and chemical properties of minerals, study of crystals and crystal models; and identification of the common and important minerals.

Supplementary Distinction Course: An additional two hours of laboratory work.

Text: Dana's Manual of Mineralogy. New Ed. revised by Ford.

Prerequisite: One year of University Chemistry or Physics. After the Session of 1918-19 Arts Students will be required to have (1) Elements of Geology or (2) General Geology before entering upon this course.

4. *Petrology.*—Two lectures and a laboratory period of two hours throughout the session.

Lectures: The lectures deal with the physical, chemical, and optical properties of the rock forming minerals; and with the genesis, occurrence, determination and uses of the igneous, sedimentary, and metamorphic rocks.

Laboratory: Instruction in the practical application of the polarizing microscope to the study of rock forming minerals; and the microscopic study of rocks in connection with the megascopic determination of the corresponding hand specimens. The course aims to train the student in the rapid and accurate determination of rocks met with in geological field work or in every day commercial life.

Supplementary Distinction Course: Two additional hours of laboratory work.

Texts: Minerals in Rock Section, L. M. Luquer; Petrology for Students, Alfred Harker.

Prerequisite: (1) Elements of Geology, or (2) General Geology, or (3) General Mineralogy.

5. *Economic Geology.*—Three hours of lecture.

This course includes: (*a*) A study of the occurrence, genesis, and structure of the principal metallic and non-metallic ore deposits with type illustration; (*b*) description of the ore deposits of the British Empire, special stress being placed on those of Canada; (*c*) application of the principles of geology to civil and mining engineering and to the industrial arts with illustrations drawn from actual problems.

Supplementary Distinction Course: Two hours laboratory. Study of ores, maps, and plans illustrating the lectures.

Prerequisite: (1) Elements of Geology, or (2) General Geology, or (3) General Mineralogy.

6. *Field Geology.*—Areas will be assigned for study either during the school session or in the summer. A geologic or topographic map, or both, of the area studied and a written report of the field and laboratory investigations will be required.

Amount of time, prerequisites, and credit will be adapted to the individual.

## DEPARTMENT OF HISTORY.

Assistant Professor: Mack Eastman, PhD.
(On Overseas Service).

### History.

1. A sketch of European history from the beginning of the French Revolution, and the subsequent evolution of modern European society as interpreted by Robinson & Beard, in their "Outlines of European History," Part II. (Ginn & Co.) Prerequisite to all other history courses.

First year, one hour a week.

2. A history of England from the Norman Conquest to the present day. More time will be given to the period from Elizabeth to the present, and special emphasis will be laid upon the nineteenth and twentieth centuries with their new problems of labor, militarism, and empire.

Three hours a week; an additional hour for distinction.

*3. Beginning with a brief survey of Spanish colonization in America, and a succinct account of the development of the United States, this course will be devoted to Canadian History. After a consideration of the main characteristics of the French Regime, the class will proceed to the study of Canada under British rule. Special attention will be given to constitutional history and the

*In 1918-19 the department will probably give history 1, history 2, and one or two of the advanced courses. The advanced courses, though designed for the third and fourth years, may, with the approval of the department, be substituted for history 2, by duly qualified second year students, especially those with a good record in history 1. Such substitution must not decrease the total number of units carried by the student.

questions of government. Students are advised to read in advance Parkman's "Jesuits in North America," "Count Frontenac," "The Discovery of the Great West," "The Old Regime," and "Wolfe and Montcalm."

Third or Fourth Year elective, two hours a week.

*4. The economic, political, and military history of the great countries of Europe from the French Revolution to our own times. This course aims at an historical interpretation of the present situation in Europe. Prerequisites for this course are (in addition to history 1), Economics 1, and a reading knowledge of French.

Text-books: Shailer Mathews, "The French Revolution" (Longmans); Herbert Fisher, "Napoleon" (Home University Library); C. D. Hazen, "Europe Since 1815" (Henry Holt).

Third or Fourth Year elective, four hours a week.

*5. Ancient times from the dawn of history to the fall of the Byzantine Empire in 1453 A.D. In this survey special emphasis will be laid upon economic and commercial evolution, and the intellectual development through successive points of view, including glimpses of the social life of famous periods. More time will be given to the golden ages of Egypt, Babylonia, Palestine, Greece, to the conditions of the Hellenic World at the time of the composition of the Gospels, and to the more brilliant periods of the Roman Empire and of the Byzantine Empire of Constantinople. The course will include incidental study of modern problems in ancient times and of the contributions of the ancients to modern civilization.

Text-book: James Breasted, "Ancient Times" (Ginn & Co.).

Third or Fourth Year elective, four hours a week.

*6. A sketch of Medieval History from the "Fall of Rome" to the Eve of the French Revolution. Special emphasis will be laid upon economic and social conditions, and the intellectual life.

Third or Fourth Year elective, two hours a week.

*7. The religious thought and life of the Roman Empire, the

*In 1918-19 the department will probably give history 1, history 2, and one or two of the advanced courses. The advanced courses, though designed for the third and fourth years, may, with the approval of the de-

Middle Ages, the Renascence, the Reformation, the Counter-Reformation, and the subsequent history of religious thought down to the present day, with special reference to the English Deists, the French Philosophers, the German Pietists, the Wesleyans, the Quakers, the Catholic Modernists and the Higher Critics.

Third or Fourth Year elective, two hours a week.

## DEPARTMENT OF MATHEMATICS

Associate Professor: G. E. Robinson, B. A.

Assistant Professors { E. H. Russell, B.A.
Thomas Pattison, M.A.

Instructors { E. E. Jordan, M.A. (absent on leave, overseas service).
Leonard Richardson, B.Sc.

1. *Algebra.*—Hall and Knight's Elementary Algebra (omitting Chapters 40, 41, 42), or the same subject-matter in similar text-books.

Plane and Solid Geometry.—As in Hall and Stevens' School Geometry.

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

For the ordinary class a course of three hours per week; for the distinction class the course will be four hours per week.

2. Geometry.—(*a*) Solid Geometry, continuation of the Geometry of the First Year; (*b*) Geometrical Conic Sections. Spherical Trigonometry, an elementary course.

Text-book: Wilson's Solid Geometry and Conic Sections.

*Algebra.*—Permutations and combinations; binomial theorem; exponential and logarithmic series; interest, annuities, and bonds; undetermined coefficients; partial fractions; summation of typical series; probabilities; determinants.

Text-book: Hall and Knight's Advanced Algebra.

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partment, be substituted for history 2, by duly qualified second year students, especially those with a good record in history 1. Such substitution must not decrease the total number of units carried by the student.

*Analytic Geometry.*—A short introductory course.

For the ordinary class a course of three hours per week; for the distinction class the course will be four hours per week.

3. *Analytic Geometry.*

Text-book: Tanner & Allen.

Two hours a week throughout the session.

*Calculus.*—Text-book: Granville's Differential and Integral Calculus (Ginn & Co.).

Two hours a week throughout the session.

4. (1) *Topics from Advanced Calculus;* Differential equations.

(2) *Analytic Geometry* of two and three dimensions.

(3) *Algebra.*—Topics in determinants, theory of equations, series and functions of a real variable.

(4) *Mathematical Drawing and Projective Geometry.*

## DEPARTMENT OF MODERN LANGUAGES.

Associate Professor of French: H. Ashton, B.A., Des. L., D.Litt., O.I.P.

Assistant Professor of Modern Languages: H. Chodat, M.A.

Instructor: Isabel MacInnes, M.A.

### French.

1. (*a.*) *Literature.*—A general view of French Literature based on passages in Siepmann's *Primary French Course,* Third Part (Macmillan, Canada), 2nd edition, 1915. Corneille, Racine, Molière, La Fontaine, Boileau, Rousseau, Voltaire, Chateaubriand, Sand, Balzac, Hugo, Lamartine, Musset.

(*b*) *Language.*—The passages from the above-mentioned authors in Siepmann, Part III., and the exercises thereon, with the exception of (i) those marked V. Free Composition, pp. 143 to 219, (ii) the test papers in composition, pp. 259 to 265, and (iii) the passages for translation into French, pp. 266 to 270. Siepmann's *Short French Grammar* should be used in conjunction with Part III. and special attention paid to the accidence and syntax of the verb.

In using the exercises in Part III. attention will be paid to the

following:—Conjugation of verbs; transitive and intransitive verbs; verbs conjugated with être; agreement of verbs; ordinary uses of tenses; common uses of subjunctive; agreement of past particle; use of pure infinitive; everyday uses of infinitive with participle; use of pure infinitive; everyday uses of infinitive with à and with de.

(*c.*) *Conversation.*—Practice in conversation will be based on André Laurie, "Une année de Collège à Paris". (Macmillan).

Students should procure W. E. Weber's Cahier français de notes diverses. (Cambridge University Press).

Three hours language course for pass students. One hour literature in addition for students taking the distinction course.

**Agricultural French.**

Prescribed text: Cunisset-Carnot, Le livre d'Agriculture, Paris (Larousse).

Reading and translating with easy composition.

Two hours a week.

2. *Summer Reading.*—Students who intend to take Course 2 are required to read, during the vacation, De Tocqueville, L'ancien régime, pp. 144 to 216.

(1) De Tocqueville, L'ancien régime (Oxford, Clarendon Press); (2) Voltaire, Contes (ibid.); (3) Beaumarchais, Le barbier de Seville (Macmillan); (4) Marivaux, Le jeu de l'amour et du hasard (ibid.); (5) Montesquieu, Lettres persanes (Macmillan).

(*b.*) *Composition.*—Weekley, French Prose Composition. All the exercises and the shorter passages at the end. Philibert & Pratt, Free Composition and Essay Writing (Dent).

(*c.*) *Conversation.*—Based on the texts studied.

Students should procure W. E. Weber's Cahier français de notes diverses (Cambridge University Press).

Three hours a week for pass students.

One hour extra (Literature) distinction class.

3. *Summer Reading.*—Sainte-Beauve, Trois Portraits, pp. 57 to 112.

(*a.*) *Literature.*—Sainte-Beauve, Trois Portraits (Oxford Press); Corneille, Théâtre Choisi (Didier, Paris); Molière, Scenes Choisies (Didier); Racine, Bérénice (Oxford Press).

(*b.*) *Composition.*—Revision of Weekley, French Prose Composition. Ritchie & Moore, French Composition (Cambridge Press).

(*c.*) *Phonetics.*—During the Second Term one hour a week will be devoted to an introduction to the study and use of phonetics. Prescribed book: Dumville, Elements of French Pronunciation and Diction (Dent, Toronto).

Students of the Third and Fourth Year should procure W. E. Weber's Cahier français de notes diverses (Cambridge University Press).

4. *Summer Reading.*—The plays by de Musset mentioned below:

(*a.*) *Literature.*—Modern drama.

Musset, Les Caprices de Marianne.
Il faut qu'une porte soit onverte on fermée.
A quoi rêvent les jeunes filles.
On ne badine pas avec l'amour.
Rostand, Les Romanesques.
L'Aiglon.

3 hours a week.

(*b.*) *Composition.*—As third year. One hour a week.

(*c.*) *Free Composition and Essay Writing.*—One hour a week.

A course of lectures on the Seventeenth Century in France.

One hour a week.

**German.**

*Beginners' Course.*—Siepmann, Primary German Course (Macmillan), Allen, German Life (Holt); Nichols, Easy German Reader (Holt).

1. (*a.*) *Composition, Conversation, etc.*—Pope, Writing and Speaking German (Holt).

(*b.*) *Reading.*—Storm, Immensee (Holt); Keller, Legenden (Holt); Meyer, Der Schuss von der Kanzel (Ginn); Freytag, Die Journalisten (Ginn).

Four hours a week.

2. *Summer Readings.*—Keller, Dietegen (Ginn).

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The examination in Summer Readings will be held in the first week of the session.

(*a.*) *Composition.*—Pope, Writing and Speaking German (Holt).

(*b.*) *Literature.*—A general survey of German literature. Stroebe and Whitney, Geschichte der Deut. Literature (Holt).

(*c.*) *Reading.*—Lessing, Minna von Barnhelm (Macmillan); Schiller, Wilhelm Tell (Holt); Goethe, Egmont (Ginn).

Four hours a week.

3. *Summer Readings.*—Students taking this course are expected to read Lessing's Emilia Galotti (Heath) and Kleist's Der Prinz von Homburg (Ginn).

(*a.*) *Composition.*—Whitney & Stroebe, Exercises in German Syntax & Composition (Holt).

(*b.*) *The Classical Drama.*—Lessing, Emilia Galotti (Heath); Schiller, Die Braut von Messina (Holt); Goethe, Iphigenie auf Tauris (Ginn).

(*c.*) *The XIX Century Drama.*—*Kleist, Der Prinz von Homburg (Ginn); Grillparzer; Sappho; *Hebbel, Herodes und Mariamne (Holt); *Ludwig, Der Erbförster (Holt); *Wagner, Die Meistersinger (A.B. Co.); Hauptmann, Die Weber; Sudermann, Die Heimat (Heath).

**Spanish.**

1. (*a.*) *Grammar and Conversation.*—Hill & Ford, A Spanish Grammar (Heath); Robert, First Spanish Book (Dent).

(*b.*) *Reading.*—Valera, El Pajaro verde (Ginn); Valdés, La Hermana San Sulpicio (Holt); Echegaray, O' Locura O' Santidad (Heath).

Four hours a week.

French 2 is a prerequisite for Spanish 1.

## DEPARTMENT OF PHILOSOPHY.

Assistant Professor: James Henderson, M.A.

1. *A Course in Elementary Psychology.*—Text-book: Pillsbury's Essentials of Psychology. (latest edition). Students will

* Starred books to be especially studied in class.

also be referred to Stout's Manual of Psychology, Titchener's text-book, and James' Psychology.

Preparatory reading recommended: McDougall's Psychology (Home University Library).

*A Course in Elementary Logic, Deductive and Inductive.*—Text-book: Mellone's Introductory Text-book of Logic (latest edition).

Three hours a week.

A fourth hour per week for students desiring distinction will be devoted to lectures introductory to the main problems of Philosophy, and a special study of Descartes' Discourse on Method and Berkeley's Treatise concerning the Principles of Human Knowledge.

2. *A Course in Moral Philosophy.*—(*a.*) Theoretical Ethics; the development of morality in the race and in the individual; the psychological and metaphysical implications of morality; the chief ethical theories of ancient and modern times, with special reference to the Ethics of Idealism and the Ethics of Evolution. (*b.*) Applied Ethics; Moral Institutions; the duties and the virtues; the social organism; Ethics in relation to Politics and Economics; the sociological movement; moral progress.

MacKenzie's Manual of Ethics is prescribed for collateral reading. A special study will be made of portions of Aristotle's Ethics; Butler's Sermons on Human Nature i, ii, iii; Mill's Utilitarianism; Kant's Metaphysic of Morals.

Preparatory reading recommended: Ethics, by Canon Rashdall (The People's Classics); Ethics, by G. E. Moore (Home University Library).

Four hours a week.

3. *The History of Philosophy from the Renaissance to the Present Time.*—Text-book: Calkin's Persistent Problems of Philosophy. Works of reference: Rand's Modern Classical Philosophers, and the Various Histories of Philosophy—Hoffding, Windelband, Erdmann, etc.

Four hours a week.

Courses 2 and 3 will be given in alternate years. Session of 1918-19, Course 2 will be given.

4. *History of Early Greek Philosophy.*—In connection with the course, a special study will be made of Plato's Republic (Golden Treasury edition, translated by Davies & Vaughan).

*Books of Reference.*—Bakewell's Source-book in Ancient Philosophy; Fairbanks' First Philosophers of Greece, Taylor's "Aristotle on his Predecessors;" Burnet's History of Greek Philosophy, etc.

2 hours per week.

## DEPARTMENT OF PHYSICS.

Associate Professor: T. C. Hebb, M.A., B.Sc., Ph.D.
Instructor: P. H. Elliott, M.Sc.

1. *A General Study* of the principles of mechanics, properties of matter, heat, light, sound, and electricity, both in the lecture room and in the laboratory. The 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 Agriculture, Chemistry, Engineering and Advanced Physics. Students must reach the required standard in both theoretical and practical work.

Two hours of lectures and one period of two hours of laboratory work per week for the pass course and one extra lecture hour for distinction students.

2. *Mechanics, Molecular Physics and Heat.*

Two hours of lecture and two hours of laboratory per week for the pass course and one extra lecture hour for the distinction students.

3. *Electricity, Sound and Light.*

Two hours of lectures and two hours of laboratory per week.

4. *Electricity and Magnetism.*—Two hours of lectures and two hours of laboratory per week (not offered in 1918-19).

The subject matter of courses (2), (3) and (4) is considered much more thoroughly than is the case in course (1). The mathematics used is not advanced but the student must be prepared to use Geometry, Algebra and Trigonometry freely.

## INFORMATION FOR STUDENTS IN APPLIED SCIENCE.

The work of the first two years is largely in Mathematics and pure science, giving a foundation for specialization in the various branches of Engineering in the Third and Fourth Years of a B.Sc. Course.

### Faculty of Applied Science

The requirements for Matriculation in Applied Science are the same as for Senior Matriculation. Students who have passed the First Year in Arts are admitted to the First Year in Applied Science without further examination.

Candidates for a Senior Matriculation certificate will not be considered as having passed unless they obtain at least 50 per cent. on the aggregate and at least 40 per cent. in every paper.

For Matriculation requirements see pages 39, 40 and following.

Students intending to enter Applied Science are strongly advised to take Chemistry I. during First Year Arts.

In the Third Year five courses are offered:—

I. Chemistry.
II. Chemical Engineering.
III. Civil Engineering and Surveying.
IV. Metallurgy (1919-20).
V. Mining.

Definite arrangements have been made so that a student who has completed the Third Year work in Civil or Mining Engineering at the University of British Columbia may enter the Fourth Year at a number of other Canadian and American universities.

In the Fourth Year three courses are offered:—

(I.) Chemistry.
(II.) Chemical Engineering.
(V.) Mining; (1919-20).
Engineering.

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.

### General Outline of Courses.

The work of the First Year is the same in all the courses in Applied Science.

The work of the Second Year is the same in four of these courses, and includes the work being covered in the second year at other universities reserving specialization for the third and fourth years.

The curruculum, as outlined below, is subject to alteration at any time.

FIRST YEAR.

| Subject. | First Term | | Second Term | | See Page. |
|---|---|---|---|---|---|
| | Lectures per Week | Laboratory Hours per Week | Lectures per Week | Laboratory Hours per Week | |
| Mathematics, 1 | 7 | .. | 7 | .. | 110 |
| Descriptive Geometry, 1 | 2 | 4 | 2 | 4 | 99 |
| Drawing (*a*) and (*b*) | .. | 3 | .. | 3 | 104 105 |
| Mechanical Drawing, 1 and 2 | .. | 6 | .. | 6 | 103 |
| Mechanics, 1 | 2 | .. | 2 | .. | 112 |
| Physics, 1 | 2 | 3 | 2 | 3 | 111 |
| Shop-work, 1* | .. | 6 | .. | 6 | 105 |
| Chemistry, 1 | 3 | 3 | 3 | 4 | 99 |

* Students who have taken these classes may claim exemption.

*Summer Work.*—All undergraduates entering the Second Year —except those taking the Chemistry Course (Course I.)—are of August, when the field-work in Surveying and Geodesy will required to be in attendance at the Surveying School on the 28th commence. (*See* page 102).

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SECOND YEAR.

| Subject. | First Term | | Second Term | | See Page. |
|---|---|---|---|---|---|
| | Lectures per Week | Laboratory Hours per Week | Lectures per Week | Laboratory Hours per Week | |
| Mathematics, 2 | 6 | .. | 3 | .. | 111 |
| Chemistry, 2 | 1 | 6 | 1 | 6 | 99 |
| General Engineering, 1 | 1 | .. | 1 | .. | 100 |
| Structural Engineering, 1 | .. | .. | .. | 3 | 101 |
| Mechanics, 2 | .. | .. | 3 | .. | 112 |
| Mechanical Engineering. 1 | 3 | .. | 3 | .. | 103 |
| Physics, 2 | 2 | 3 | 2 | 3 | 112 |
| Shop-work, 2 | 1 | 3 | 1 | 3 | 106 |
| Mapping, 2 | .. | 3 | .. | 3 | 102 |
| Surveying, 1 | 2 | .. | 2 | .. | 102 |
| Field-work, 1 (Four weeks*) | .. | .. | .. | .. | 102 |

* Field-work begins August 28th, 1918.

. *Summer Work.*—Undergraduates entering the Third Year in Civil and Mining Engineering (Courses 3 and 4) are required to attend the Surveying School on August 28th, when the field-work in Surveying will commence. (*See* page 102).

Essay.—Students entering the Third and Fourth Years must prepare an essay which should consist of about 2,000 words, and which must in all respects follow the specifications herewith given:—

All essays must be handed in to the Registrar not later than November, 15th. A maximum of 100 marks, or nearly 10 per cent. of the total marks for the year, is given for these essays.

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

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

The essay must be written in precise, well-chosen English. In preparing it advantage may be taken of any source of information, but due acknowledgement must always be made 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 8½ x 11 inches.

### 1. Chemistry.

The aim of this course is to train the students for positions as analytical chemists, and to give them such knowledge of the principles of chemistry that they may be prepared to assist in the solution of problems of value to the industrial and agricultural life of the Province. The course is arranged to give in the first two years a knowledge of the fundamental principles of chemistry and physics, with sufficient mathematics to enable the theoretical parts of the subject to be understood.

In the Third Year, analytical, organic, and physical chemistry are studied from the scientific side and in relation to technology; while in the Fourth Year a considerable amount of time is devoted to a short piece of original work.

FIRST YEAR.

As in other engineering courses. (For details *see* page 89).

SECOND YEAR.

| Subject. | First Term | | Second Term | | See Page. |
|---|---|---|---|---|---|
| | Lectures per Week | Laboratory Hours per Week | Lectures per Week | Laboratory Hours per Week | |
| Mathematics, 2 | 6 | .. | 3 | .. | 111 |
| Chemistry, 2 | 1 | 9 | 1 | 9 | 99 |
| Chemistry, 3 | 2 | 3 | 2 | 3 | 99 |
| Chemistry, 4 | .. | .. | 2 | .. | 99 |
| Mechanics, 2 | .. | .. | 3 | .. | 112 |
| Physics, 2 | 2 | 3 | 2 | 3 | 112 |
| German (Arts), 1 | 3 | .. | 3 | .. | 84 |

THIRD YEAR.

| Subject. | First Term | | Second Term | | See Page. |
|---|---|---|---|---|---|
| | Lectures per Week | Laboratory Hours per Week | Lectures per Week | Laboratory Hours per Week | |
| Engineering Economics | .. | .. | 2 | .. | 99 |
| Geology, 2 | 3 | 1 | 3 | 1 | 77 |
| Chemistry, 5 | 1 | 9 | 1 | 9 | 99 |
| Metallurgy | 2 | .. | 1 | .. | 109 |
| Mineralogy, 1 | 2 | 2 | 2 | 2 | 110 |
| Chemistry, 7 | 2 | 3 | 2 | 3 | 99 |
| Chemistry, 8 | .. | .. | .. | .. | 99 |
| Bacteriology (Arts) | .. | .. | .. | 7 | 65 |
| Assaying | 1 | 7 | .. | .. | 109 |

FOURTH YEAR.

| Subject. | First Term | | Second Term | | See Page. |
|---|---|---|---|---|---|
| | Lectures per Week | Laboratory Hours per Week | Lectures per Week | Laboratory Hours per Week | |
| Chemistry, 6 | 2 | .. | 2 | .. | 99 |
| Chemistry, 8 | 2 | .. | .. | .. | 99 |
| Chemistry | 1 | 3 | 1 | 3 | 99 |
| Ore Dressing | 2 | .. | 2 | 3 | 108 |
| Thesis | .. | 20 | .. | 20 | .... |

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## II. Chemical Engineering.

This course is arranged to prepare the student for the duties of managing engineer in a chemical manufactory. As such he must not only be conversant with the chemical processes involved, but he must be prepared to design and to oversee the construction of new buildings and to direct the installation and use of machinery. Accordingly, the course of study combines a considerable amount of engineering with the maximum of chemical training allowed by the time at his disposal.

## FIRST AND SECOND YEARS.

As in other engineering courses. (For details *see* pages 89 and 90).

## THIRD YEAR.

| Subject. | First Term | | Second Term | | See Page. |
|---|---|---|---|---|---|
| | Lectures per Week | Laboratory Hours per Week | Lectures per Week | Laboratory Hours per Week | |
| Engineering Economics | .. | .. | 2 | .. | 99 |
| Metallurgy | 2 | .. | 1 | .. | 109 |
| Mechanical Engineering, 2 and 3 | 2 | 3 | 2 | 3 | 103<br>104 |
| Mineralogy, 1 | 2 | 2 | 2 | .. | 110 |
| Chemistry, 3 | 2 | 3 | 2 | 3 | 99 |
| Chemistry, 4 | .. | .. | 2 | .. | 99 |
| Chemistry, 5 | 1 | 9 | 1 | 6 | 99 |
| General Engineering, 2 | 2 | .. | 2 | .. | 100 |
| Structural Engineering, 3 | .. | .. | 1 | 3 | 101 |

## FOURTH YEAR.

| Subject. | First Term | | Second Term | | See Page. |
|---|---|---|---|---|---|
| | Lectures per Week | Laboratory Hours per Week | Lectures per Week | Laboratory Hours per Week | |
| Elec. Engineering and Elec. Eng. Lab. | 1 | 2 | 1 | 2 | 104 |
| Engineering Law | 2 | .. | .. | .. | .. |
| Hydraulics | 2 | .. | 1 | .. | .. |
| Chemistry, 6 | 2 | .. | 2 | .. | 99 |
| Chemistry, 8 | 2 | .. | .. | .. | 99 |
| Chemistry, 5 | 1 | 9 | 1 | 9 | 99 |
| Chemistry, 7 | 2 | 3 | 2 | 3 | 99 |
| Fire Assaying | 1 | 7 | .. | .. | 109 |
| Thesis | .. | 6 | .. | 10 | .. |

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### III. Civil Engineering.

The aim of this course is to give the student a sound training in the fundamental scientific principles on which the practice of the profession is based, and in the various branches of general engineering which are most called for in the practice of the profession in this Province. Experience shows that graduates do not usually follow any narrow differentiation that they may make in their course, but are governed by many other factors which affect them after leaving college. In practice in British Columbia, in particular, the engineer is called upon to undertake work in various branches of the profession. The course is therefore adapted to the needs of the engineer who expects to enter the profession in this Province in general practice, or the student who wishes to take up a special branch of engineering in a post-graduate course. The instruction is given by means of lectures and practical work in the field, the draughting-room, and the laboratory, and by visits to works in regular conducted class excursions.

During the earlier years of the course the training is along engineering lines in Mathematics, Physics, Mechanics, and allied subjects which are essential to the proper education of the engineer who in practice is applying the principles of these sciences.

In the third year of this course the strength of materials is the main subject of study. The knowledge of this subject already gained is applied to simple problems in the analysis of stresses in framed structures, and to the design of foundations, girders, columns, roof-trusses, and the like. Courses in Surveying extend throughout the second and third years, with summer school sessions and field-work at the beginning of the session.

#### FIRST AND SECOND YEAR.

As in other engineering courses. (For details *see* pages 89 and 90).

THIRD YEAR.

(Not offered in 1918-19, unless warranted by the number of applications.)

| Subject. | First Term | | Second Term | | See Page. |
|---|---|---|---|---|---|
| | Lectures per Week | Laboratory Hours per Week | Lectures per Week | Laboratory Hours per Week | |
| Descriptive Geometry, 2 | 1 | 3 | .. | .. | 99 |
| Geology | 3 | 1 | 3 | 1 | 110 |
| Engineering Economics | .. | .. | 2 | .. | 99 |
| Mechanics, 3 | 2 | .. | .. | .. | 112 |
| General Engineering, 2 | 2 | .. | 2 | 3 | 100 |
| Mechanical Engineering, 2 and 3 | 2 | 3 | 2 | 3 | 103<br>104 |
| Mechanical Engineering, 4 | 2 | .. | 2 | .. | 104 |
| Railway Engineering, 1 | 2 | .. | 2 | .. | 101 |
| Structural Engineering, 1 | 1 | 3 | 1 | 3 | 101, |
| Electrical Engineering | 1 | .. | 1 | .. | 104 |
| Hydraulic Engineering, 1 | .. | 3 | .. | 3 | 100 |
| Surveying, 2 | 2 | .. | 2 | .. | 102 |
| Mapping, 2 | .. | 6 | .. | 6 | 102 |
| Field-work, 2 (Four weeks*) | .. | .. | .. | .. | 102 |

* Field-work begins August 28th, 1918.

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## IV. Mining Engineering.

This course is intended to give a broad foundation in Mining Engineering that will form a suitable introduction to any branch of the work that aptitude or circumstances may lead the student to enter after graduation.

Special attention is therefore given to be fundamental sciences upon which the practice of the profession is based. As the usual avenues toward professional work are through draughting, surveying, and assaying, special attention will be given to training in these branches of the work.

Specialization does not begin until the third year, when courses in Mining, Metallurgy, Ore-dressing, and Assaying are commenced, but the chief work of the Third Year is still in such fundamental subjects as Applied Mechanics, Mechanical Engineering, Chemistry, Geology, and Mineralogy.

Instruction is given by means of lectures and practical work in the field, draughting-room, and laboratory, and by visits to mines and works. Students are recommended to spend their vacations at practical works in connection with Mining, Metallurgy, or Surveying, and will be required to do so between the third and fourth year.

FIRST AND SECOND YEARS.

As in other engineering courses. (For details *see* pp. 89 and 90).

THIRD YEAR.

| Subject. | First Term | | Second Term | | See Page. |
|---|---|---|---|---|---|
| | Lectures per Week | Laboratory Hours per Week | Lectures per Week | Laboratory Hours per Week | |
| Engineering Economics | .. | .. | 2 | .. | 99 |
| Fire Assaying | 1 | 7 | .. | .. | 109 |
| Geology, 2 | 3 | 1 | 3 | 1 | 110 |
| Chemistry, 2 | 1 | 6 | 1 | 6 | 99 |
| Mechanical Engineering, 2 and 3 | 2 | 3 | 2 | 3 | 103<br>104 |
| Metallurgy | 2 | .. | 1 | .. | 109 |
| Mineralogy | 2 | 2 | 2 | 2 | 110 |
| General Mining | .. | .. | 2 | .. | 107 |
| Ore-dressing | 2 | .. | 2 | 3 | 108 |
| Structural Engineering, 3 | 2 | .. | 2 | .. | 101 |
| General Engineering, 2 | .. | .. | 1 | 3 | 100 |
| Mine Surveying | 1 | .. | .. | .. | 107 |
| Mapping, 2 | .. | 3 | .. | .. | 102 |
| Field-work, 2 (Four weeks*) | 4* | .. | .. | .. | 102 |

* Field-work begins August 28th, 1918.

## SHORT COURSES IN MINING.

The regular Short Courses in Mining, for the session of 1918-19, will commence on January 13th, 1919, and will continue for eight weeks. These courses include Mining, Smelting, Geology and Ore Deposits, Mineralogy and Rock Study, Fire Assaying, Chemistry, Surveying and Blacksmithing.

The courses are thoroughly practical in nature. They are not intended for those who have had a technical training but rather for those who have had practical experience in Mining and

Prospecting, or are connected with the business of mining in any way. The courses are designed to give practical technical knowledge, helpful in practical mining work and business. While they are short they are complete in themselves, and require no other preparation than a common school education, or ability to read and write.

Experience has shown that they fill a practical demand and they have proved very successful in the past.

As they do not form part of the regular University course, a special bulletin is issued, in which details of the courses and requirements for admission are given. Copies of this may be obtained on application to the Registrar of the University.

**Regulations Concerning Prerquisite Subjects.**

(1.) No student proceeding to a degree will be allowed to take and subject, unless he has previously passed, or secured exemption, in all prerequisite subjects.*

(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 those 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 subjects until he has passed or secured exemption in all matriculation requirements; and, similarly, no third-year work may be undertaken until all first-year subjects shall have been passed or exempted. No fourth-year work may be undertaken until all subjects of the previous years shall have been passed or exempted.

(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

* 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 advantageously studied alone. If any subject has another which is concurrent with it, both must be taken in the same session.

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 passed examination 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.

## EXAMINATIONS IN APPLIED SCIENCE.

There are two examinations in each year—one at Christmas and the other at the end of the session. Successful students are arranged in three classes as follows: First class, those who obtain 80 per cent. or more; Second class, from 65 per cent. to 80 per cent.; Passed, from 50 to 65 per cent.

Christmas examinations will be held in all subjects and are obligatory for all students. Any partial student of the first year who fails in the Christmas examinations in any subject will not be allowed to continue his course in that subject, except under special circumstances and with the consent of the Faculty.

*Any student whose record is found to be unsatisfactory may at any time be required to withdraw from the University.*

## SUPPLEMENTAL EXAMINATIONS.

Applications for these examinations, accompanied by the necessary fees, should be in the hands of the Registrar at least two weeks before the date of the examinations.

## COURSES IN APPLIED SCIENCE.

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

## DEPARTMENT OF CHEMISTRY.

Professor: D. McIntosh.
Associate Professor: E. H. Archibald.
Associate Professor: R. H. Clark

1. *General Chemistry.*—As in Arts (*see* page 67).

2. *Qualitative and Quantitative Analysis.*—As in Arts (*see* page 67).

3. *Organic Chemistry.*—As in Arts (*see* page 67).

4. *Theoretical Chemistry.*—As in Arts (*see* page 68).

5. *Advanced Qualitative and Quantitative Analysis.*—As in Arts (*see* page 68).

6. *Industrial Chemistry.*—As in Arts (*see* page 68).

7. *Physical Chemistry.*—As in Arts (*see* page 68).

8. *Applied Electro-Chemistry.*—As in Arts (*see* page 69).

9. *Advanced Organic Chemistry.*—As in Arts (*see* page 69).

## DESCRIPTIVE GEOMETRY.

Instructor: E. G. Matheson.

1. *Descriptive Geometry.*—Geometrical drawing; orthographic, isometric, and axometric projections; shades and shadows.

Text-book: Descriptive Geometry, H. F. Armstrong.

2. *Descriptive Geometry.*—Mathematical perspective; perspective of shadows; spherical projections and construction of maps.

Text-book: Elementary Perspective, by L. R. Crosskey (Pub. by Blackie & Son, London).

Reference books: The Principles and Practice of Surveying, by C. B. Breed and G. L. Hosmer; publishers, J. Wiley & Son, N.Y.; Plane Surveying, by P. C. Nugent, pub., Wiley; Topographic, Trigomometric and Geodetic Surveying, by H. W. Wilson; pub., Wiley.

## DEPARTMENT OF CIVIL ENGINEERING AND SURVEYING.

Instructors { W. H. Powell.
E. G. Matheson.

### ENGINEERING ECONOMICS.

General finance; stocks and bonds; partnership and corpor-

ations; estimating; cost analysis; valuations; operating and fixed charges; specifications and contracts; general management.

Two hours a week. Second Term.

### GENERAL ENGINEERING, 1.

*Materials of Construction.*—Manufacture and properties of iron and steel; principal alloys; considerations governing selection of materials; manufacture and properties of cements; study of concrete; stone and brick masonry; principal kinds of commercial timber; preservation of timber; discussion of standard specifications for engineering work.

Second-year students. One hour a week during the year.

Reference Book: Mills, Materials of Engineering.

### GENERAL ENGINEERING, 2.

*Strength of Materials.*—Lectures dealing with the fundamental principles of the strength of materials. The subject includes stress, strain, resilience; bending moment and shearing force diagrams; simple, continuous, and cantilever beams; strength of shafting; spiral springs; elementary consideration of compound stresses and shearing in different sections.

*Strength of Materials in Laboratory.*—Testing of concrete, timber, steel, and other materials to illustrate the theories and factors considered in the lectures.

Text-book: Boyd, Strength of Materials.

Third year students. Two hours a week, with one laboratory period per week during the second term.

### HYDRAULIC ENGINEERING, 1.

*General Hydrology.*—Application of hydraulic pressure in the case of dams gates and pipes; flow of water and measurement of volume by various orifices and weirs; flow in open channels, ditches, flumes, etc.

Third year students. One hour a week.

Text-book: Hydraulics, by Russell.

### RAILWAY ENGINEERING.

Location and grade problems; economics of location; reconnaissance, preliminary and location surveys; yards and terminals; details and materials of construction; estimates of probable receipts and expenditures.

Two lectures a week throughout the year.

Text-book: Railroads, Curves and Earthwork, Allen; Economics of Railroad Construction, Webb.

### STRUCTURAL ENGINEERING, 1.

*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.

Laboratory period of three hours during the second term.

Required of all engineering students.

Text-book: Modern Framed Structures, Vol. I. to end of Section III., page 156, by Johnson, Bryan & Turneaure. Pub. Wiley.

### STRUCTURAL ENGINEERING, 2.

*Foundations and Masonry.*—Borings; bearing power of soils; pile and other foundations; coffer-dams; caissons; open dredging; pneumatic and freezing processes; estimates of quantities and costs.

One hour lecture and three hours laboratory during first term.

Text-book: Foundations, by M. A. Howe. Reference books: Treatise on Masonry Construction, by I. O. Baker (Wiley); Foundations of Bridges and Buildings, by H. C. Jacoby and R. P. Davis. Pub. McGraw Hill, N. Y.

### STRUCTURAL ENGINEERING, 3.

Problems illustrating designs in structural engineering and reinforced concrete; drawing estimates of quantities and costs.

One hour lecture and three hours laboratory during second term.

Text-book: Structural Draughting and Elementary Design, Conklin.

### SURVEYING, 1.

Lectures; chain and angular surveying, surveying instruments and equipment, their construction, use and adjustment; topography, levelling, contouring, stadia surveying, railway curves, etc.; Provincial and Dominion surveys.

Two hours a week.

Text-book: Surveying, by Raymond.

### SURVEYING, 2.

(Continued from Surveying, 1.)

Theory and use of instruments, plane table surveying, mine surveying, hydrographic surveying; theory and setting out of railway curves; elements of geodetic surveying; elements of practical astronomy; Provincial and Dominion land surveying.

### FIELD WORK, 1.

(1) Farm survey, with chain and compass; (2) compass and micrometer survey; (3) detail survey of chain and pickets; (4) practice with level and transit, including adjustments. Practical instruction is given, with special reference to the general requirements of all courses.

### FIELD WORK, 2.

Advanced practice, covering Topographical, hydrographical, and railway-location surveys; mine surveys; use of plane table, sextant, barometer, etc.

### MAPPING, 1.

Drafting from notes obtained in field-work and other surveys; plans of University ground; also a plan of a mine from notes given.

### MAPPING, 2.

Draughting from notes obtained in field-work and from other notes. Special practice in location from railway surveys, river soundings, and other advanced work.

## Department of Mechanical Engineering.

Assistant Professor—L. Killam.

Instructor—G. A. Booth.

Demonstrators—H. Taylor, J. W. Faulkner, S. Northrop, F. McCrady, J. Goodwin, J. E. Dubberley, G. Bright, J. Crowley.

### MECHANICAL ENGINEERING, 1.

*Mechanics of Machines.*—(*a.*) *Kinematics of Machines.*—Displacement, velocity and acceleration, and their mutual relations; constrained motion; and the relative motions of links in various closed chains; alteration and closure; the design of gear teeth, wheel trains and cams.

(*b.*) *Dynamics of Machines.*—The dynamics of revolving and reciprocating parts of machines; work represented in the indicator diagram; the design of fly-wheels.

Text-book: Durley, "Kinematics of Machines."

Reference book: Ewing, "The Steam Engine and Other Heat Engines."

Three hours a week throughout the year.

### MECHANICAL ENGINEERING, 2.

*Heat Engines and Auxiliaries.*—The mechanical engineering of large and small steam and internal-combustion power plants, with consideration of the economical selection and arrangement of equipment; the air-compressor, and the transmission and use of compressed air; refrigeration; heating and ventilation.

Text-book: Fernald and Orrok, "Engineering of Power Plants."

Reference books: Gebhardt, "Steam Power Plant Engineering"; Marks and Davis, "Steam Tables and Diagrams"; Kent, "Mechanical Engineers' Pocket Book."

Two hours a week throughout the year.

MECHANICAL ENGINEERING, 3.

*Laboratory.*—The testing of boilers, steam engines, and internal-combustion engines; fuel calorimetry; flue gas analysis; the distribution of losses in a steam-power electric generating plant; the efficiency of belt transmission of power; the power and its transmission in an automobile; air-compression; lubrication.

Reference book: Carpenter and Diedrichs, "Experimental Engineering."

Three hours a week throughout the year.

MECHANICAL ENGINEERING, 4.

*Thermodynamics.* — The fundamental principles of thermodynamics; the theory of air-compression, and the transmission and use of compressed air; the efficiencies of ideal heat engines; the properties of steam and the elementary theories of different heat engines.

Text-books: Simons, "Compressed air"; Ewing, "The Steam Engine and Other Heat Engines."

Reference book: Lucke, "Thermodynamics."

Two hours a week throughout the year.

## Electrical Engineering.

An essentially practical course designed to give the student acquaintance with and experience in the handling of electrical machinery. Access is had to hydro-electric generating plants and sub-stations, and to isolated steam-power generating plants. Experimental studies are made of different types of generators and motors, storage batteries and other electrical apparatus, with a view to guiding the student in the selection of proper apparatus for any particular service. A lecture course on commercial practice will be given.

Text-book: Gray, "Principles and Practice of Electrical Engineering."

Three hours a week throughout the year.

## Drawing.

(*a.*) *Freehand Drawing.*—The sketching of machine parts, buildings and other structures, to train the student in the making of perspective drawings, or dimensioned drawings which may be copied to scale.

(*b.*) *Lettering.*—Practice in freehand lettering of the types in common use in draughting-rooms; the making of capitals, with drawing instruments; tinting and blue-printing.

Three hours a week throughout the year.

MECHANICAL DRAWING, 1.

The making of drawings and tracings of simple machine parts. All work is finished in accordance with the best commercial practice; and instruction is given in the reason for such practice and the choice of materials specified for use.

Three hours a week throughout the year.

MECHANICAL DRAWING, 2.

A continuation of Course 1; the making of detailed drawings from assembly drawings, and assembly from detail drawings, and assembly and detail drawings from measurements of more complicated machine parts.

Three hours a week throughout the year.

**Shop-work.**

These courses are planned to give the student some knowledge of common methods of manufacture as employed commercially, and also to supplement the manual-training work of the High Schools in imparting a degree of manual skill and instruction in the use and care of various hand and machine tools. The courses help to form a basis for future intelligent design of parts for machines or structures.

The student is strongly advised to increase his practical experience by work in some branch of engineering during the summer vacations.

In conjunction with the Shop-work courses the student is required to read portions of certain text-books on shop practice, tool design, and machine performance.

Notes on work done in the shops are handed in to the Instructors in charge.

SHOP-WORK, 1.

(*a.*) *Woodworking.*—The use and care of woodworking tools in bench-work and turning; the making of various joints and small structures with finished surfaces; turning and boring.

All work is done according to blue-print specifications.

Three hours a week throughout the year.

(*b.*) *Smith-work.*—The use and repairing of smith's tools; the making of small iron and steel forgings, including welding; the tempering of carbon-steel tools.

Three hours a week during one term.

(*c.*) *Foundry-work.*—Bench and floor moulding; core-making; cupola operation.

Three hours a week during one term.

(*d.*) *Shop Lectures.*—A course of lectures in line with the work done in Courses (*a*), (*b*), and (*c*), with a discussion of materials used and explanation of more advanced practice. Instruction is also given in the use of the slide-rule.

One hour a week throughout the year.

SHOP-WORK, 2.

(*a.*) *Machine-shop Work.*—Bench-work, including marking off, chipping, filing, scraping, tapping, and fitting; lathe-work, including turning and boring of cylindrical work to gauge, screw-cutting and finishing; lathe adjustments; shaping; drilling; milling; gear-cutting; tool-dressing.

Three hours a week throughout the year.

(*b.*) *Shop Lectures.*—A course of lectures to supplement the knowledge gained in Course (*a*). The subjects considered are: Tools and tool-steels; annealing, hardening and tempering; grinding; soldering and welding; pipe-fitting; machine-fitting; the manufacture of interchangeable parts; lathe adjustments.

Text-book: Smith, "Principles of Machine Work."

One hour a week throughout the year.

## Department of Mining Engineering.

Professor—J. M. Turnbull.

*Mine Surveying.*—This course covers the application, to mining problems, of the general principles of surveying, under the following heads:—

Instruments and accessory appliances used, their selection, care, and methods of use underground. Practical details of underground survey-work and special difficulties. Surveying in shafts. Setting and lining in of timbers. Stope surveys. General underground surveys. Co-operation with sampling and geological work. Different systems of taking notes and sketches. Mapping methods. Scale of maps. Uses of maps for various purposes. Records, and methods of keeping them. Estimating tonnages and volumes. Functions of the Mine Survey Department.

Lectures and mapping one hour per week in the first term of the third year.

*General Mining.*—This course covers broadly the general principles underlying the operations of finding and working mines. It forms the foundation for more specialized and detailed subsequent studies in mining. In outline the course is as follows:—

Ores.—Nature and types of ores and economic minerals.

Mineral Deposits.—Characteristic types, nature and origin, relations to surrounding rocks. Classification. Conditions of occurrence. Enrichment and impoverishment. Mineral belts.

Prospecting.—Methods used in searching for mineral deposits. Outcrops and other indications of occurrence. Geological aids. Mineral fashions. British Columbia Mineral Acts and Laws, applying to prospecting and location of mineral claims.

Preliminary Development.—Usual methods, their choice, nature and applicability. Relation to future operations. Technical and commercial results to be attained.

Boring.—Types of long-distance boring drills used, their uses for particular purposes. Value of results in prospecting for and development of mineral occurrences.

Mechanical Appliances.—General nature, types, and uses of mining machinery. Hoisting and winding engines, compressors, rock-drills, coal-cutters, dredges and hydraulic plants, transportation appliances and systems.

Structures.—General nature, types, and uses of structures and

buildings in connection with mines. Ore-bins, head-frames, etc.

Excavation.—Breaking and moving gravel, rock, ore, and coal. Common explosives, their use and effects.

Mining Methods. — Systematic development work. General methods used in mining different types of mineral occurrences. Placer mining. Value and use of maps, surveys, geological and sampling work.

Mine Valuation.—General methods and considerations used in arriving at the values of mines and prospects.

Administration.—Functions and general organization of employees. Safety Department. Supplies, wages, mine accounts.

Economics.—General application of financial and commercial considerations to mining operations.

Ethics.—Character and obligations of the mining engineering profession.

Lectures two hours per week in the second term of the third year.

Books of reference: Principles of Mining, H. C. Hoover; Mining without Timber, R. B. Brinsmade; Examination of Prospects, C. G. Gunther; Mine Samling and Valuing, C. S. Herzig; Mineral Deposits, W. Lindgren; Cost of Mining, J. R. Finlay; etc.; and Current Mining Journals and Transactions.

*Ore Dressing.*—Owing to rapid and radical changes in the practice of ore dressing in recent years, and the immense number and variety of machines in use, no attempt is made to describe all the machines. Most of the time is spent in considering fundamental principles, typical machines, and their general operations and relations in standard modern milling practice.

Students are taught the commercial and technical characteristics of true concentrating ores, the general principles on which the size, character, site, and other features of a mill are designed. The general lay-out of crushing, handling and separating machinery. The laws of crushing and of various classifying and separating actions, and the design, operation, and comparative efficiency of typical machines, such as crushers, rolls, stamps, ball and tube mills, jigs, tables, screens, classifiers and slime-handling devices.

Attention is paid to pneumatic, magnetic, electrostatic, flotation, and other special processes, including coal-washing.

Two lectures per week throughout the Third Year, with one laboratory period in the Second Term.

Reference books: Theory and Practice of Ore-dressing, E. S. Wiard; Concentrating Ores by Flotation, T. J. Hoover; etc.; Current Mining Journals; Trade Catalogues.

Text-book: Text-book of Ore Dressing, R. H. Richards.

*General Metallurgy.*—This course covers the fundamental principles underlying metallurgical operations in general, and is introductory to subsequent more specialized study.

The lectures follow in general the subject as taken up in "Principles of Metallurgy," by Chas. H. Fulton, including the following main subjects:—

Physical mixtures and thermal analysis. Physical properties of metals. Alloys. Measurement of high temperatures. Typical metallurgical operations. Roasting and fusion. Electro-metallurgy. Slags. Matte, bullion and speise. Refractory materials. Fuels. Combustion. Furnaces. Economics of metallurgy.

Lectures two hours per week in the first term of the third year and one hour per week in the second term.

Text-book: Principles of Metallurgy, C. H. Fulton.

Reference books: General Metallurgy, H. O. Hofman; Current Mining and Metallurgical Journals; Trade Catalogues.

*Fire Assaying.*—Quantitative determination of Gold, Silver, Lead and Platinum by fire-assay methods, with underlying principles.

Lectures and laboratory work eight hours per week during the First Term of the third year.

Text-book: Manual of Fire Assaying, C. H. Fulton.

## Department of Geology and Mineralogy.

Professor—R. W. Brock (on Overseas Service)

Assistant Professor—Edwin T. Hodge.

### GEOLOGY.

1. *General Geology.*—As in Arts (*see page 77*)

2. *Petrography.*—As in Arts (*see page 77*).

3. *Economic Geology.*—As in Arts (*see page 77*)

4. *Field Geology.*—As in Arts (*see page 77*).

### MINERALOGY.

1. *Mineralogy.*—As in Arts (*see page 77*).

2. *Optical Mineralogy.*—As in Arts (*see page 77*).

## Department of Mathematics.

Associate Professor—G. E. Robinson.

Assistant Professors { E. H. Russell. / Thomas Pattison.

Instructor—E. E. Jordan (absent on leave, Overseas Service).

### MATHEMATICS, 1.

(1.) *Geometry.*—(*a.*) Solid geometry. (*b.*) Geometrical conic sections. First Term.

Text-book: Wilson's Solid Geometry and Conic Sections (Macmillan).

(2.) *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.).

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(3.) *Trigonometry.*—Plane and Spherical. Second Term.

Text-book: Murray's Plane and Spherical Trigonometry, with tables (Longmans).

MATHEMATICS, 2.

(1.) *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.).

(2.) *Calculus.*—Differentiation of functions of one or more variables, successive differentiation, tangents, etc., curvature, maxima, and minima, integration, with appliances to areas, volumes, moments of inertia, etc. First and Second Terms.

Text-book: Granville's Differential and Integral Calculus (Ginn & Co.).

## Department of Physics and Mechanics.

Associate Professor—T. C. Hebb.

Instructor—P. H. Elliott.

The instruction includes a fully illustrated course of experimental lectures on the general principles of Physics, accompanied by courses of practical work in the laboratory, in which 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.

PHYSICS, 1.

1. *Lecture Course.*—Advanced heat, with topics in sound, light and electricity and magnetism. Two hours per week.

2. *Laboratory Course.*—Three hours per week, spent in practical measurements in conjunction with the lecture course.

### PHYSICS, 2.

1. *Electricity and Magnetism.*—This consists of a lecture course of two hours per week and begins at that point in the subject where it was dropped in Physics, 1.

2. *Laboratory Course.*—This consists of three hours per week spent in performing experiments closely related to the subject of the lecture course.

### MECHANICS, 1.

An elementary course in Dynamics, Statics, and Hydrostatics, such as is given in Loney's Mechanics and Hydrostatics for Beginners. First and Second Terms.

Two lectures per week.

### MECHANICS, 2.

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.

### MECHANICS, 3.

An extension of the work of Mechanics, 2, to include the equations of motion of a rigid body in two dimensions; practical problems on rotating and oscillating bodies, the elementary consideration of the gyroscope, etc.

Two hours per week, First Term.

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## *SPECIAL COURSES FOR RETURNED SOLDIERS.*

In co-operation with the Invalided Soldiers' Commission, the Department of Mechanical Engineering offers courses for the revocational training of returned soldiers.

Admission to these courses is allowed only to those who are

approved by the Commission as needing and fitted for the work.

In general the length of a course in six months, and entrance may follow immediately upon approval.

Courses other than those mentioned are now being arranged for, and it is expected that they will be offered during and following the summer of 1918.

Special equipment and tools, suitable to the very practical nature of each course, are provided to supplement the equipment of the University laboratories.

Anyone who satisfactorily completes one of these courses should have no difficulty in obtaining employment along the line of his training.

At present the following are offered:—

1. *Automobile Engineering.*—Giving training in the operation and care of internal combustion engines and automobiles, and in repair work on these.

2. *Automobile Driving.*—A six weeks' course, including four weeks of garage work.

3. *Machine Shop Work.*—Including machine-tool and hand work for general machinists.

4. *Steam Engineering.*—Instructing those with firing experience so that they may secure Third or Fourth Class Engineers' Papers for the operation of steam plants in British Columbia.

5. *Practical Electricity.*—Preparing for the capable handling or installing of the electrical equipment of any industrial plant, office building, or the like.

6. *Moving Picture Machine Operation.*—Giving the electrical training necessary for this work, and supplementing the work of the Physics Department in Optics, as preparation for later instruction on machines by members of the Operators' Union.

## INFORMATION FOR STUDENTS IN AGRICULTURE.

### Courses of Study.

Two distinct lines of study are offered, as follows:—

(1) A Four-Year Course leading to the Degree of Bachelor of Science in Agriculture (B. S. A.).

(2) A series of Short Courses.

### (1.) Course Leading to the Degree of B.S.A.

Students in Agriculture are required to have Junior Matriculation or its equivalent before entering upon this course. The Degree of B. S. A. is granted only after the successful completion of four years of lecture and laboratory work. The course is planned for students who wish to obtain a practical and scientific knowledge of Agriculture, either as a basis for demonstration and teaching, or as an aid to success in farm management.

#### CURRICULUM.

The first two years of work leading to the degree in Agriculture will be devoted to acquiring a knowledge of the basic sciences upon which Agriculture rests, in adding to the student's knowledge of mathematics and language, and in laying a foundation for more advanced studies in practical Agriculture. The third and fourth years will be devoted almost wholly to courses in Applied Agriculture. Details of these courses will be announced in the Calendar one year before the courses are offered.

Except under special circumstances, students will not be eligible for registration who have not attained the age of seventeen. Specialization will begin at the commencement of the third year. Students who have not had at least one full season's practical farm experience will be required to obtain this preliminary training before registering for the third year.

#### FIRST-YEAR COURSE OF STUDY.

| Agriculture: | Units |
|---|---|
| Agronomy, 1 | 1 |
| Animal Husbandry, 1 | 1½ |
| Horticulture, 1 | 1 |
| Biology, 1 | 3 |
| Chemistry, 1 | 3 |
| English, 2 | 1 |
| French or German (Special) | 2 |
| Mathematics, 1 | 3 |
| Physics, 1 | 3 |
| | 18½ |

SECOND-YEAR COURSE OF STUDY.

| Agriculture: | Units |
|---|---|
| Agronomy, 2 | 2 |
| Animal Husbandry, 2 | 2 |
| Horticulture, 2 and 3 | 2 |
| Poultry Husbandry, 1 | 2 |
| Biology, B | 1½ |
| Chemistry, 2 | 3 |
| English, 3 and 4 | 4 |
| French or German (Special) | 2 |
| | 18½ |

### (2.) Short Courses.

The Short Courses are planned for those men and women who are unable to take advantage of the longer course, but who desire to extend their knowledge of agriculture in one or more of those branches in which they are particularly interested. The work throughout is intensely practical. Illustrative material and periods devoted to demonstration and judging work are strong features of the courses. No entrance examination is required, nor are students asked to write an examination at the conclusion of the course.

The following dates have been fixed for these courses:—

Agronomy and Animal Husbandry—January 6 to 17, inclusive.

Poultry Husbandry—January 20 to 31, inclusive.

Fruit Growing—February 3 to 14, inclusive.

A detailed statement of work covered in these courses is issued in a separate circular, and may be obtained on request.

## COURSES IN AGRICULTURE.

### Department of Agronomy.

Professor—L. S. Klinck, M.S.A.

Associate Professor—P. A. Boving, Cand. Phil., Cand. Agr.

**Agronomy 1—Soils and Soil Fertility.**

In this course an examination will be made of the more important soil types in the vicinity of the University; cultivation, manuring and rotation of crops will be studied in their relation to soil pro-

ductivity; methods of treatment will be observed, and the principles underlying proper soil management and improvement will constitute the basis for subsequent courses in Agronomy.

One lecture and one laboratory period per week. First Term.

**Agronomy 2—Field Crops.**

This course embraces a study of the most important grain, corn, forage and root crops. A detailed study of the crops, in the field and in the laboratory, will supplement the lecture work in order to give the student a comprehensive idea, not only of the different phases of successful crop production, but also of the relative value of separate specimens and samples.

Second Year. Two lectures and two laboratory periods per week, First Term.

## Department of Animal Husbandry.

Professor—J. A. McLean, B.A., B.S.A.

Associate Professor—J. E. Harper, M.S.A.

**Animal Husbandry 1—Market Classes and Grades.**

A study of the market classes and grades of cattle, horses, sheep and swine, with special attention to the characteristics of each class, and judging of live stock in these various classes.

Three two-hour laboratory periods per week, Second Term.

**Animal Husbandry 2—Breeds of Cattle and Swine.**

A study of the origin, history of development, breed characteristics and adaptations of the breeds of beef cattle, dairy cattle and swine.

Three lectures and two two-hour laboratory periods per week, First Term.

Prerequisite: Animal Husbandry, 1.

Text: Plumb's Types and Breeds of Farm Animals.

## Department of Horticulture.

Professor—F. M. Clement, B.S.A.

**Horticulture 1.**

A laboratory course designed to acquaint the students with the

elements of horticultural practice. Visits to orchards, gardens, small-fruit plantations, greenhouses, nurseries, packing-houses, canning plants and the experimental grounds at Point Grey for purposes of observation and study will make up a large part of the course.

One lecture and one laboratory period per week, First Term.

**Horticulture 2.**

Small Fruits: Raspberries, blackberries, loganberries, strawberries, currants, gooseberries; varieties, cultural methods and general relation to fruit farm pactice.

One lecture and four laboratory periods per week, Second Term.

**Horticulture 3.**

A detailed study of some of the more important vegetable crops. General methods of garden farming, judging and seed selection.

Two lectures per week Second Term, and eight laboratory periods Second Term.

It is expected that Courses 2 and 3 shall run concurrently.

### Department of Poultry Husbandry.

Associate Professor—A. G. Lunn, B.S.A.

**Poultry Husbandry 1.**

A course arranged to give the student a general knowledge of the principles and practices of poultry-keeping. Special emphasis will be placed upon poultry-keeping as a branch of farming, and as a specialized industry.

Two lectures and two laboratory periods per week, Second Term.

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## MILITARY TRAINING.

As the University of British Columbia is a public institution supported by State funds, and as the physical exercise, discipline, organization, and study of military science are highly beneficial to the student, Military Training is compulsory for all male students during their first two sessions.

Permission has been given by the Militia Headquarters to organize a contingent of the Canadian Officers' Training Corps, in order that

the training taken at the college may qualify students to rank in the Canadian Militia as officers without further training. A contingent of the Officers' Training Corps is a unit of the Active Militia, but is governed by special regulations. It cannot be called out for active service, but all qualified members, if not attached to any militia corps are placed on the Officers' Reserve List of Canada. Certificates of proficiency are issued to members who qualify. These certificates are of two classes, "A" and "B," "A" certificate being given to those who spend two years with the corps as efficient members, and "B" certificate to those who spend three or more years as efficient members.

Students to qualify must attend drills and lectures for a minimum period of two sessions and pass certain examinations.

Students whose unexcused absences from parades and lectures exceed one-eighth but fall below one-fourth of the total possible attendances may, if otherwise approved, be conditioned in military training.

Conditions may be removed at the beginning of the next session by the payment of the usual supplemental examination fee of $5 and attendance on twelve parades for conditioned students.

Students who are declared inefficient must repeat the year's work in military training, as in other courses.

A certificate of proficiency entitles the holder to rank as an officer in the Canadian Militia without further training.

On attaining Class "A" certificate a student will be exempt from further training, but students are advised to continue training.

The time devoted to military training will be two hours per week.

## HONOUR ROLL.

### MEMBERS OF THE STAFF.

Brock, Major Reginald W.
Jordan, Capt. Edward E.
Logan, Capt. Harry T.
Schofield, Lieut. Stuart J.
Eastman, Pte. Mack.

### STUDENTS OF THE UNIVERSITY OF BRITISH COLUMBIA.

Allardyce, William John
Allen, Gordon C.
Anderson, Lce.-Sgt. Allan Jardine
*Anderson, Claude William
Anderson, David Gash
Anderson, John Alexander
Anderson, Sydney
Archibald, Aubrey Parker
Austin, Clarence Ward
Baker, Lincoln Thompson
Banfield, William Orson
Barclay, William Saunderson
Barnwell, George Francis
Baxter, Fred Rowland
Baxter, William E.
Berry, Edward Weldon
Berto, John C.
Best, Edgar Leslie
Bickell, William Albert Bird
Blair, Lieut. Alexander Gilbert
*Bunn, Raymond Spence
Bush, Waldo Murray
Cairnes, Clive Elmore
Callaghan, Gordon
Carter, Bayard M.
Caspell, Edmond Vanderburgh
Castleman, Gordon Cameron
Christie, Alexander Sellar
Clarke, George Savage
Clarke, Lieut. George Ernest Wesley
Clement, Capt. Carleton Main
Cline, Harold MacKechnie
Coates, Wells Wintemute
Coles, Eric Morrell
Colgan, Harry Wilfrid
Collister, Douglas Harold

*Killed in action.

Cook, Archibald James
Craig, Gordon
*Creery, Lieut. Cuthbert John
Creery, Leslie Charles
*Creery, 2nd Lieut. Ronald Hulbert
Cross, George Carmichael
Crute, Ebenezer
Davidson, Douglas Alexander
Dawe, Lieut. William Albert
Day, Frederick James
de Pencier, Joseph Christian
Desbrisay, Merrill
Dixon, Lieut. George Clapham
Doell, Raymond A.
Drewry, John Haworth
Duncan, Lc.-Cpl. Charles Andrew
Emmons, Edward
Emmons, William Frank
Evans, Charles Sparling
Fitzgerald, Herbert George
Fooks, Maynard A.
Fountain, George Frederick
Fowler, Grant
Frampton, Lieut. Geoffrey
Galbraith, Samuel Tait
Gale, William Alexander
*Gibson, Lieut. Harold Alexander Frater
Gibson, Cpl. Thomas Ian
Gillespie, Roy Meredith
Gillie, Kenneth Beresford
Glen, Herbert Douglas Stewart
Goodman, Edwin Monro
Gordon, Lc.-Cpl. Alva McIntyre
Gregg, Elwyn Emerson
Greenwood, Harold Day
Hamilton, Lieut. Robert Stanford
Hamilton, Stuart Perry
*Hardie, Charles Mawer
Harkness, John Alexander Charles
Harris, Henry
Hatch, Marion Charles
Hatch, William George
Heynen, Robert Harry
Hillis, Bruce
Holmes, Sgt. Albert Thomas Franklin
Hughes, Ernest Leigh

*Killed in action.

*Hughes, Norman Vincent
Hunter, Robert Russell
Hurst, Allan McLean
Jackson, Lorne Hugh
Jackson, Major Jackson Arnold
James, Gordon
James, Howard Turnbull
Jane, Robert Stephen
*Jeffs, William Armour Cowan
Johannson, Joseph Soemunder
Johnston, Sgt. Harry Lloyd
Kearne, Lc.-Cpl. Geoffrey Norman
Keenleyside, Hugh Llewellyn
Kellie, Robert Irvine
Kerr, Lieut. John Harold
Kirby, Judson Orville Coates
Lambert, Lieut. Noel Dudley
Lawrence, Cpl. James Lyle
Lawson, Lc.-Cpl. Duncan MacDonald
Leckie, Claude Perrin
Le Messurier, Lieut. Ernest L.
*Le Messurier, Thomas
Letson, Lieut. Harry Farnham Germaine
Lett, Lieut. Sherwood
Livingstone, Lieut. Warren
Lord, Arthur Edward
Lord, Lieut. Ernest Ellis
Lumsden, Gerald Roberts
Macfarlane, Comrie Vernon Hastings
MacLeod, William Ray
Marshall, Abraham Lincoln
*Mathers, Wilford Wiltsie
Maxwell, William Forrest
May, John Gordon
*Mayers, James Christian Francis
Munro, Donald Hugh
McAfee, Weldon Robert
McClay, James Gerald
McDiarmid, Harry de Cew
McDougall, Wilfrid Robinson
McIlvride, Robert
McInnes, Harold Walker
McLellan, Norman Wellington
McLellan, Willard Gilmore
McNamara, Joseph Albert
McPhalen, Hugh Cornelius
McQueen, Donald William

*Killed in action.

McTavish, Cpl. Alexander Morrison
Meadows, George Douglas
Meekison, Sgt. Donald Murray
Melville, Andrew Harry
Mennie, John Hamilton
Meredith, Howard Jackson
Merrill, Gerald Herriman
Miller, Sgt. Arthur Harold
Miller, Cpl. Clive
Milton, Ernest Lytle
*Moore, Capt. Guy Borthwick
Morrison, Loyle Alexander
Munro, Alexander
Munro, Donald Hugh
Murray, Kenneth William
Palmer, Richard Claxton
Palmer, William Mills
Pearse, Hubert Arnold
Pim, Edgar Henry
Ray, Douglas Henderson
Ray, Godfrey H.
Rebbeck, James Waller
Richards, Edgar Charles
Rickaby, William
Rive, Alfred
Robertson, Hugh Milne
Rose, Hedley Alexander
Scott, Gordon Wood
Scott, Sgt. Seaman Morley
*Seidelman, Edward Joseph
Sexsmith, Lieut. Franklin Frederick Burrows
*Shearman, Thomas Stinson Becket
*Simmonds, Lieut. Robert Hazlette
Smeeton, Lieut. Joseph Thomas
Southcott, Lc.-Cpl. James Percy Caldwell
Southam, Harold Davey
Stephen, John Forrest
Stewart, Earl Richard
Stewart, John Malcolm
Story, John Boyd
Thompson, Lc.-Cpl. Douglas Lionel
Thompson, Stephen Cecil Clute
Thomson, William Gregg
Timberlake, Morley
Traves, Charles Wesley
*Traves, Edmond Cornelius

*Killed in action.

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Usher, Alexander Murray
Usher, Charles
Waddington, Cpl. George Wilfrid
Walkinshaw, Wingate Robertson
Wallace, Bryce G. Howie
Wallis, Capt. Preston Richard Montagu
Walsh, Harold Edgar
Watts, Harold Newton
Weart, Sgt. James Foss
Weld, Charles Beecher
Wilkinson, Elmo Clifford
*Wilson, Lieut. Conrad
Wilson, Frank Robinson
Wilson, William Cochrane
Woodward, Eric Raymond
Wright, Lieut. Douglas A.
Wright, Leroy Charles

STUDENTS OF THE McGILL UNIVERSITY COLLEGE OF BRITISH COLUMBIA.

Adams, Robert Frederick
Allen, Lieut. J. S.
*Anderson, Goldie Fraser
Appleton, Lieut. Harold
*Atkins, Lieut. Basil Elmo
Baker, Fred Lefevre
Baldwin, Capt. Sidney George
Barker, Culver Maynard
Bell-Irving, Capt. Malcolm McBain
Bell-Irving, Robert
Bennett, James Lingard
Beveridge, William Wentworth
Black, Alexander Pineo
Boak, Capt. Eric Wellesley
Bodie, Robert Charles
*Bowser, William James
Boyd, James Bruce
*Boyes, Lieut. David Alexander
Boyle, Ernest Allen
Bray, Lieut. Harry Randle
Brydone-Jack, Lieut. Herbert Disbrow
Buck, Frank Hepworth
Bunt, Major William Percy
Bushby, Edward Maurice
Cameron, Lieut. Hamish Johnston
*Cameron, Lieut. Ian MacKenzie
*Campbell, Fred Edward
Campbell, J. M.

*Killed in action.

Carne, Harold Gowan
Carnsew, Lieut. Charles Noel Thomas
Celle, Peter Thomas Dominic
*Chaffey, Charles R.
Chave, Elmer Hargreaves
Chown, Eric Vickers
Clark, Harry McKenzie
Clearihue, Lieut. Joseph D.
Coughlan, Joseph Clare
Crane, Sub-Lieut. Harry Joseph
Creery, Lieut. Kenneth Andrew
Creighton, 2nd Lieut. Charles P.
Davies-Moore, Fritz
*Desbrisay, Eric Merrill
Desbrisay, Harold Archibald
de Pencier, Lieut. Theodore Frederick Wells
De Wolf, Tempest Carroll St. Etienne
Donaldson, Capt. Arthur William
Dowler, Lieut. John Welton Douglas
Draper, Richard
Drost, Herbert Mason
Duchesnay, Lieut. de St. Denis
Duncan, Charles France
Duncan, Robert George
Dunn, Lieut. Frank
Dustan, Alexander Boyle
Earle, George Alfred
Earle, Harry A.
Eberts, Capt. Harold F. H.
Eckardt, Harold Alexander
Elliott, H. Maclean
Elliott, Lachlan McLean
Ellis, William Nichol
Ellison, Price
Ferguson, Clifford Joseph
Finch, Capt. Orie
Fisher, Aubrey Silver
Fitz-Henry, Edward Graham
Flitton, Ralph Cyril
Floyd, Claude Herbert
Foreman, Earl Kenneth
Forrester, Alexander
*Frame, Lieut. William Layton
Frampton, C. S.
Frampton, Keith Bertie
Fraser, Sgt. George Lyall

*Killed in action.

Fullerton, Lieut. James Thornton
*Gibbins, Lieut. Gwynn Gilbert
Gilbert, Lieut. Reginald Herbert
Godfrey, Edward Adolphus Chapnell
Gordon, Lieut. David John
Gordon, Eric Valentine
Grant, Harold David
Graves, Sgt. Herbert Sandham
Handy, Levi
Hannington, Lieut. F. Carleton
*Harvey, 2nd Lieut. Oliver Colin
Helme, Harold
Hickey, Edward John
Hodsdon, Donald Wilbur
Holland, Frederick William
Holland, Richard Rowe
Holmes, Lieut. Cuthbert
Honeyman, Lieut. Pharic Donald Innes
Hoult, Sgt. John H.
Hunt, Lieut. William Lucas
Irwin, Giffard M.
*James, Percy R.
Jones, Thomas Meredith
Kerr, Forrest Alexander
Knowling, Albert James
Lane, James Eldon
Leckie, Sub-Lieut. John Alan
Lindsay, Gordon
Macauley, Alexander Howard
*MacLennan, Neil Kenneth Finlayson
Macnaghten, Ronald Frederick
MacPherson, Lieut. Gordon Angus
MacPherson, Lieut. Ralph Stewart
Marling, Samuel Earle
Mathers, Fred DesBrisay
McDiarmid, Neil H
McDonald, Lieut. John Alexander
McGown, Thomas Hoey
McGregor, Donald Manson
McKay, Angus Howard
McKenzie, C. I.
McLean, Lieut. Allan Gordon Wilson
McLelan, Lieut. Allan Gordon Wilson
McLennan, Robert Purvis
McLennan, Stanley Archibald
McNaught, Robert Donald
McNaughton, Ira James

*Killed in action.

McNeill, Donald Leverin
McTavish, Capt. Charles Hugh
Moodie, Stanley Fyfe Middleton
Moore, Joseph D.
*Morrison, Albert Henry
Muir, William James Cecil
Murray, David Fraser
Murray, Kenneth William
Murray, Capt. William Ewart Gladstone
Mutch, Lieut. John Thomas
Ney, John Stewart
Nicholson, Cuthbert Neilson
Norris, George E.
Norris, Lieut. Thomas G.
Northrop, Harold
*Owen, Harold Heber
Payne, Wilfrid Reid
Plummer, Lieut. Stephen Becker
Pottinger, James McNaughton
Poupore, Major William Edmond
Powell, Harold Milton
Powell, Capt. Fitzhenry Townshend Scudamore
*Price, Capt. Harold Ernest
Priest, Roy Montagu
*Putnam, Laurie Chalmers
*Rand, Edwin Arthur
*Raynes, Walter L.
Reid, Lieut. John Herbert
Ritchie, Rae George
Robinson, Lieut. Harry Lunan
Rogers, William Byron
Rosebrugh, Cpl. Kenneth
*Ross, Lieut. Douglas William
Ross, Lieut. Herbert McKenzie
Ross, Lieut. William C.
Sawers, Capt. Basil Lindsay
*Sclater, Capt. James Loutit
Scott, Cecil Oscar
Scott, James H.
Scott, Sydney Dunn
Selman, Gordon Samuel
Service, Robert W.
Simpson, Donald David
Sivertz, Harold G.
*Smith, Laurence Bradbury
Smith, Philip Paul

*Killed in action.

Smith, Robert Reid
Smithson, Hillerie William
Sproule, Walter Kirby
*Stevens, D. O. Vernon
Stewart, Carroll Alexander
Stewart, Charles Clark
Stewart, Frederic Choate
Stewart, George William
Stone, Clifford Ervin
Stone, Sub-Lieut. Horace Gordon
Stuart, William James
Sutton, William Alan
Swenson, Paul Sidney
*Taylor, Lieut. Arthur
Taylor, Ivan Marcus
*Taylor, Capt. Kenneth
Thomas, Lieut. Owen James
*Thomson, Andrew B.
*Trapp, Donald Joseph
Turnbull, Robert Franklin
*Underhill, Charles B.
Underhill, Frederic Clair
Underhill, James Theodore
Wade, Sub-Lieut. Henry Read
Walker, John Fortune
Wall, Capt. James Thomas
Whyte, Lieut. Harold E.
Wilmot, Major Lemuel Allan
Wilson, Arthur Louis
Wilson, Lieut. Ray Holland
Wilson, Robert Morris
Yates, Arthur

MATRICULANTS.

Akehurst, Charles H. I.
Atkins, Richard Roy
Atkinson, James H. R.
Baker, Albert M. O.
Berto, Joseph B.
Birbeck, Albert
Burns, Torquil H.
Campbell, Harold L.
Caple, Harold Henry
Carlisle, Kenneth W. W.
Chew, Vernor J.
Clendinin, Thomas
Corsan, Stuart Glassford

*Killed in action.

Crowe, Henry A.
Cuthbert, William Arthur
Davenport, Harold
Deans, William
Dirom, Albert Munro
*Domoney, Leslie Ira
Douglas, Llewellyn
Elliott, George Albert
Ewen, Hamish
Ford, Reginald Bryden
Forrester, Norman B.
Foulkes, Godfrey Strother
Fraser, William Alan
Freeman, Frank Eric
Fuller, John Reginald
Gallagher, Victor Rex
Gee, Arthur Milsap
Gray, David Peter
Gray, Robin
Grimmett, John Alexander
Harris, George Howell
Henry, Arthur Taylor
Hine, Robert Fraser
Houghton, Gordon Kingsley
Jack, Thomas Douglas
Jackson, Hugh Arthur Bruce
James, Percy F.
Jensen, Ernest A.
Jones, Russell Heber B.
King, Paul A.
Kirkup, Gilbert Walker
Knight, Albert Leslie
*Knowling, George
*Lalonde, Maurice
Laughton, John A. C.
Lundie, James Athol
Manson, Arthur Bennett
Mawhinney, W. Russell
McAllister, Thomas H.
McInnes, Hubert Campbell
McLeod, Leighton
McMichael, William
McNab, Allan Graham
Morden, Herbert Holmes
Nelson, Gordon R.
Osterhout, Arthur Berson

*Killed in action.

1918-19

Ozburn, R. H.
Parfitt, Victor Raymond
Paterson, Gilzean Walker
Pearce, Harold M.
Peterson, Frank
Phillips, Eugene
Reid, Robert Morgan
Ritchie, Ralph Gardiner
Robson, Wilmot Douglas
Rogers, Judson Havelock
Ross, John H.
Rowan, Eric Reginald
Selman, Roy G.
Small, Frederick Arthur
Stacey, Leonard
Stewart, James Lionel
Swenson, Arthur
Taylor, Thomas Talbot
Thompson, William McNab
Todd, Robert Lawrie
Tuckey, Francis Edward
Waterhouse, Albert Victor
Wellband, Wilbur Arthur
Youngs, Frank

1913-19

## ALPHABETICAL LIST OF STUDENTS AND ADDRESSES.

### FACULTY OF ARTS.

#### FIRST YEAR.

| *Name.* | *Home Address.* |
|---|---|
| Abel, Mary Beatrice | Vancouver |
| Adams, Dorothy Isobel | Marpole |
| Allen, Gordon C. | Vancouver |
| Anders, Victor | Vancouver |
| Anderson, Olive Gray | Vancouver |
| Argue, Ralph Starrat | Vancouver |
| Arkley, Jack MacDougall | Vancouver |
| Barclay, William Saunderson | North Vancouver |
| Barlow, Margaret Young | North Vancouver |
| Blakey, Dorothy | Vancouver |
| Boss, Arthur Evan | Penticton |
| Bowell, Vera Winnifred | New Westminster |
| Brenchley, Dorothy Ann Bennett | Vancouver |
| Buell, Arthur Lightfoot | North Vancouver |
| Bulman, Marjory Maude | Kelowna |
| Buscombe, Harold Frederick Edwin | Vancouver |
| Cale, Gladys Lilian | Central Park P. O. |
| Carlyle, Vernon Sim | New Westminster |
| Carruthers, Dorothy Kathleen | South Vancouver |
| Clarke, Margaret | Kelowna |
| Coates, Lila Frances | Vancouver |
| Coffin, Frederick Winfield | Vancouver |
| Collier, Elmer Baldwin Ferris | Vancouver |
| Cowan, Josephine Irene | Vancouver |
| Cowan, Patricia Louise | Vancouver |
| Cowling, Florence | South Vancouver |
| Cox, Bessie Willard | Vancouver |
| Crickmay, Colin Hayter | North Vancouver |
| Crozier, Isabella Elliott | Vancouver |
| Dougan, Flora Mary | Qualicum Beach, V. I. |
| Dunbar, Violet Evelyn | Vancouver |
| Dunlop, Mary | Vancouver |
| Ebert, Minta Lucinda Audrey | New Westminster |
| Eckert, Viva Marion | Chilliwack |
| Edwards, Sadie | Vancouver |
| Ellard, James Eakins | Victoria |
| Etter, Harold Clinton | Penticton |
| Evans, Gerald Taylor | New Westminster |
| Faulkner, Everett William | Kelowna |
| Faulkner, William Turner | Enderby |
| Ferguson, William Chester Milton | Vancouver |
| Field, Chester Thomas | Vancouver |

| *Name.* | *Home Address.* |
|---|---|
| Fink, Henry Jacob Vincent | Cranbrook |
| Fisher, Lacey Julian | New Westminster |
| Forsyth, Robert Ross | Vancouver |
| Fournier, Leslie Thomas | Vancouver |
| Fraser, Ferguson Ross | North Vancouver |
| Gill, Bonnie Helen | North Vancouver |
| Gilley, Marjorie Evelyn | New Westminster |
| Goldstein, Cyril Moss | Vancouver |
| Goldstein, Sylvia | Vancouver |
| Goranson, Roy Walter | New Westminster |
| Gordon, John Andrian Huntly | New Westminster |
| Granger, Jessie Irene | Vancouver |
| Greenwood, Julia Elizabeth | Vancouver |
| Guerin, Clara Vea | Vancouver |
| Gwyther, Harold William | Vancouver |
| Hall, Vernon Knight | Vancouver |
| Hamson, Winifred Edith | Steveston |
| Harkness, John Alexander Charles | Vancouver |
| Harper, Kathleen Esme | Vancouver |
| Harrison, Ruth | Vancouver |
| Harvey, Marguerite | Vancouver |
| Hatt, Rona Alexandra | Vancouver |
| Healy, Agnes Coupland | Vancouver |
| Henderson, Rachel Catherine | Point Grey |
| Herd, James Fenton | Vancouver |
| Herman, Victoria | Vancouver |
| Hetherington, Ruth Beatrice | Vancouver |
| Hobson, Lillian Belle | Vancouver |
| Hopper, Dorothy Aileen | Vancouver |
| Howard, Ida Marjorie | Vancouver |
| Hudson, Lucy Marion | Vancouver |
| Ingledew, Harold Garfield | Kerrisdale |
| James, Vera Alexandra | Vancouver |
| Johnson, Lily Mabel | Vancouver |
| Jones, Norah Vivian | Kelowna |
| Keatley, Nora Kathleen | Nelson |
| Keir, Jeannie McRae | North Vancouver |
| Kidd, George Stuart | Vancouver |
| Killip, Bessie Helene | Vancouver |
| Killip, Grace Winnifred | Vancouver |
| Kilpatrick, Myrtle Esther | Victoria |
| Kion, Gertrude Anna | Vancouver |
| Laird, Frederick William | Vancouver |
| Lanning, Roland John | Ladner |
| Lavery, Wilfrid Gerard | New Westminster |
| Lawrence, Marion Evangeline | Revelstoke |

| *Name.* | *Home Address.* |
|---|---|
| Lazenby, Frederic Arthur | Port Hammond |
| Lee, Douglas Clarence | Vancouver |
| Le Messurier, Clara | Vancouver |
| Lett, Jessie Katrina | Vancouver |
| Lewis, Kathleen Gwynneth Owen | Victoria |
| Livingstone, Ethel Belle | Vancouver |
| Lynch, James Carrell | Vancouver |
| Lyne, Dorothy Elizabeth | Vancouver |
| Lyness, Ruth Emily | Marpole |
| MacBeth, Jessie Alexandra | Vancouver |
| Macdonald, Margaret Christy | Vancouver |
| Mackenzie, Robert Lennox | Vancouver |
| Mathers, Cliffe St. John | Vancouver |
| Mathers, Nina Adell | Vancouver |
| McAfee, Irene Davin | Vancouver |
| McAlister, Peter | Vancouver |
| McAllister, Elva Merle | Vancouver |
| McArthur, Hattie May | Prince George |
| McCallum, Neil Mitchell | Vancouver |
| McDonald, Anita Cecilia | New Westminster |
| McDougall, Stewart Robertson | New Westminster |
| McIntosh, Kathleen Evangeline | New Westminster |
| McKee, Enid Muriel | Armstrong |
| McKee, Greta Hope | Armstrong |
| McLean, Harold William | Vancouver |
| McLennan, Logan Seaforth | Vancouver |
| Milledge, Emmie Ada | East Burnaby |
| Mitchell, James Reid | Prince Rupert |
| Moe, Audrey Muriel | Vancouver |
| Moody, Charles Edwin | Vancouver |
| Mortimer, Helen | Vancouver |
| Munn, Nina Vivian | New Westminster |
| Munro, Mary | Vancouver |
| Munro, Muriel Rose | Vancouver |
| Munro, Robert James | Vancouver |
| Page, Minerva Elice | Matsqui |
| Parker, Rhoda Kathleen St. George | South Vancouver |
| Partridge, Phyllis Marion Ulmer | Union Bay |
| Peardon, Thomas Preston | Vicosa P. O. |
| Pumphrey, Lionel Frank | Vancouver |
| Reed, Muriel Ruth | Vancouver |
| Roberts, Aubrey Frederick | Vancouver |
| Roberts, Lorna Alexandria Lyllian | Vancouver |
| Robinson, Ruth Dulcie | Cloverdale |
| Robson, Helen McGregor | Vancouver |
| Rogers, Wilbur Stuart | Vancouver |

1918-19

| *Name.* | *Home Address.* |
|---|---|
| Rowan, Maude Elizabeth | Vancouver |
| Rushbury, Henry George Boswell | Vancouver |
| Russell, Alan Macpherson | Marpole |
| Sauder, Marion Eleanor Martha | Vancouver |
| Saunders, John Melville | Vancouver |
| Simmonds, Mabel Agnes | Revelstoke |
| Sing, Marjorie Bruce | Vancouver |
| Smith, Annie Marie | Vancouver |
| Smith, Winston Robinson | Vancouver |
| Solloway, Edgar | Vancouver |
| Somerville, Archibald Laurence Harold | Vancouver |
| Stewart, John Malcolm | Kerrisdale |
| Studer, Frank John | Vancouver |
| Sutherland, Evelina Jessie MacLeod | Vancouver |
| Sutherland, George Fraser | Vancouver |
| Sutherland, Jeanne Henderson | Vancouver |
| Suttie, Ethel Gwendolyn | Vancouver |
| Taylor, Lottie Lillian | Vancouver |
| Thomson, Hazel Marie | Vancouver |
| Thurston, Frederick Robertson | Port Moody |
| Turnbull, Helene Isabell | New Westminster |
| Vanderburgh, Belle | West Summerland |
| Wastell, Frederick Charles | Alert Bay |
| Webster, Arnold Alexander | Agassiz |
| Weinrobe, Morris | Vancouver |
| Whiteside, Jean Kennedy | New Westminster |
| Wilks, Arthur Frederick | Vancouver |
| Wilson, Everilda | New Westminster |
| Wilson, Freda Lenore | Vancouver |
| Wilson, Grace Agnes | Vancouver |
| Wood, Margaret Amelia | Vancouver |
| Wright, Evelyn Isabel | Vancouver |
| York, Albert Edward | Vancouver |
| *Conditioned.* | |
| Boyes, John Calvin Patterson | Vancouver |
| Carruthers, Walter Eric | Vancouver |
| Cartwright, Helena | Vancouver |
| Cribb, Reginald Edward | Wellington |
| Devereaux, Arthur Robert | Ladner |
| Falconer, Nellie Milne | Vancouver |
| Grimmett, Norman Thatcher | Merritt |
| Hampton, Arthur Thurston | Vancouver |
| Hearns, Harry Cecil | Vancouver |
| Hood, Roland Thomas | New Westminster |
| Kemp, Gwendolyn Muriel | Vancouver |
| Kerr, Margaret Isobel | Vancouver |

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| *Name.* | *Home Address.* |
|---|---|
| Layton, Ruth Logan | Vancouver |
| Ledingham, Helen Isabel | Vancouver |
| Lehman, Beatrice Lucy | Mount Lehman |
| Lumsden, Gerald Roberts | Vancouver |
| Mackenzie, Lilian Jean | Point Grey |
| McNaughton, Ronald Russell | Victoria |
| Mutrie, Annie Marjorie | Vancouver |
| Nicholson, Angus Alexander | Haney |
| Peck, Wallace Swanzey | Vancouver |
| Rose, William Wilfred | Steveston |
| Schoenleben, Chester Francis | Weyburn, Sask. |
| Taylor, Cecil Davis | New Westminster |
| Thomson, Helen Isabelle | Vancouver |
| Willson, Ruth Thelma | Eburne |
| *Partial.* | |
| Ballantyne, William Herbert | Vancouver |
| Bertrand, Clemence | Vancouver |
| Fort, Kathleen Nancy Carruthers | Lytton |
| Gilray, Dorothy Estelle | Vancouver |
| Robinson, Dorothy | Naramata |
| Sager, John Earle | Collingwood East |
| Sewell, Eunice Alberta | Vancouver |
| Wah, Liu Tai | Vancouver |
| SECOND YEAR. | |
| Abernethy, Elizabeth Barclay | Vancouver |
| Christie, Alexander Sellar | Ladysmith, B. C. |
| Clark, Charles Augustus Fordyce | Vancouver |
| Coates, Willson Havelock | Vancouver |
| Colgan, Harry Wilfred | Vancouver |
| Couper, Walter James | Kerrisdale |
| Davidson, Jean Munro | Vancouver |
| Davis, David Roy | Vancouver |
| Dawe, Myrtle Fannie | Vancouver |
| Day, Edwin Ethelbert | Vancouver |
| Day, Marjorie | Vancouver |
| Draper, Hester Elizabeth | Central Park, B. C. |
| Dunsmuir, Bessie Fleming | Vancouver |
| Foerster, Russell Earl | Neepawa, Man. |
| Gladwin, Aleen Harrison | Kerrisdale, B. C. |
| Gunn, William George | Vancouver |
| Hanna, Evelyn Clare | Vancouver |
| Harris, Ethel | Vancouver |
| Harvey, Gerald Myles | Vancouver |
| Hill, Annie Graham | Vancouver |
| Hokkyo, Junichi | Vancouver |
| Inrig, Mary Catherine | Vancouver |

| *Name.* | *Home Address.* |
|---|---|
| James, Edwin Telford | Vancouver |
| James, Gordon | Vancouver |
| Keenleyside, Hugh Llewellyn | Vancouver |
| Lucas, Evylin Caroline | Victoria |
| MacKinnon, George Ernest | Revelstoke, B. C. |
| Martin, George Rutherford | Vancouver |
| McClay, James Gerald | Vancouver |
| McGregor, Norma Isabel | Kaslo, B. C. |
| Milley, Chesley Ernest | Vancouver |
| Morris, Verna Edna | Steveston, B. C. |
| Nowlan, Norah Kathleen | Vancouver |
| Peebles, Allon | New Westminster |
| Pillsbury, Katherine Hall | Prince Rupert, B. C. |
| Porter, Gertrude Gladys | Victoria |
| Pratt, Bernard Dodge | Vancouver |
| Roy, Henrietta | Fraser Arm, B. C. |
| Roy, Jessie | Fraser Arm, B. C. |
| Scharschmidt, Daphne Maud | Vancouver |
| Siddons, John Donald | Vancouver |
| Smith, Adela Elizabeth | Jubilee, B. C. |
| Smith, Charles Duncan | Vancouver |
| Smith, Elizabeth Patricia Hamilton | Victoria |
| Usher, Alexander Murray | Marpole, B. C. |
| Walsh, Maud Victoria | Vancouver |
| Weld, John Noel | Vancouver |

*Conditioned.*

| | |
|---|---|
| Adam, Jessie Wallace | Vancouver |
| Alexander, Merle Helena | Eburne P. O. |
| Bickell, Gertrude Elizabeth | Vancouver |
| Boldrick, Helena Elizabeth | Vancouver |
| dePencier, Joseph Christian | Vancouver |
| Fournier, Eugenie Ida | Vancouver |
| Gilley, Janet Kathleen | New Westminster |
| Hunter, Robert Russell | Vancouver |
| Irvine, Florence Annabel | Vancouver |
| Kirby, Judson Orville Coates | Rocky Mt. House, Alta. |
| Law, Frederick Charles | Vancouver |
| McMurray, Herschel Scott | Vancouver |
| Morrison, Margaret Ralston | Vancouver |
| Robson, Margaret Watt | Kerrisdale, B. C. |
| Swencisky, Alfred Harold Joseph | New Westminster |
| Swencisky, Laura Mary | New Westminster |
| Ure, Agnes Margaret | Vancouver |
| Wilby, George Van | Vancouver |

| *Name.* | *Home Address.* |
|---|---|
| *Partial.* | |
| Ballentine, Ellen May | Vancouver |
| Beltz, Edward William | Vancouver |
| Blackhall, Marion Isobel | Vancouver |
| Boulton, William | Joyce Road P. O. |
| Chen, Shu Yen | Canton, China |
| Copping, Marjorie | Vancouver |
| Damer, Margaret Agnes | Vancouver |
| Magee, Frances Ethel | Kelowna, B. C. |
| McKechnie, Eberts Mills | Vancouver |
| Myers, Ada Cordelia | Grand Coulee, Sask. |
| Nelson, John Cecil Thomas | Vancouver |
| Noon, Paul D. | Canton, China |
| Ross, Willow Katharine | Vancouver |
| THIRD YEAR. | |
| Agabob, Walter John | Vancouver |
| Archibald, Annie Marguerite | New Westminster |
| Ashwell, Iris | Chilliwack, B. C. |
| Bain, Janet Burnett | Vancouver |
| Barclay, May Lilian | New Westminster |
| Boyd, Lillian Martha | Vancouver |
| Cameron, Margaret Marion Burleigh | Vancouver |
| Costley, Muriel Helen | Kamloops |
| Dalton, Clara Belle | Vancouver |
| Dunlop, Harry Adam | Vancouver |
| Fraser, Joseph Gordon | Vancouver |
| Gintzburger, Pauline Emma | Vancouver |
| Grant, Muriel | Victoria |
| Gross, Alice Stockton | Vancouver |
| Highmoor, Constance Elizabeth | Vancouver |
| Hosang, Inglis | Vancouver |
| Howard, Edith Louise | Vancouver |
| Hunter, Ellen Craig | Vancouver |
| Kellie, Robert Irwin | New Westminster |
| Kelman, Mildred Alice | Vancouver |
| Kerr, Donna Enid | Duncan, B. C. |
| Ketcheson, Laura Marguerite | Hatzic, B. C. |
| Mahrer, Leopold Joseph | Nanaimo, B. C. |
| Mann, Edith Gertrude | New Westminster |
| Matheson, Agnes Helen | Vancouver |
| Maynard, Catherine Easterby | Vancouver |
| McKay, Evelyn Christiana | Kerrisdale, B. C. |
| McLean, Olive Edmondson | Victoria |
| McLellan, Willard Gilmore | Vancouver |
| Murphy, Eldred Almack | Vancouver |
| Peck, Marjory Gowan | Vancouver |

| *Name.* | *Home Address.* |
|---|---|
| Rollston, Eva Jean | Vancouver |
| Shaw, Ian Alastair | Vancouver |
| Shimizu, Kosaburo | Vancouver |
| Sutcliffe, William George | Vancouver |
| Swencisky, Dylora Mary | New Westminster |
| Thomas, Isabel Martin | Vancouver |
| Vollum, Roy Lars | Vancouver |
| Wallace, Norah Elizabeth | Vancouver |
| Wesbrook, Helen Fairchild | Vancouver |
| *Conditioned.* | |
| Brown, Magnus Forbes | Vancouver |
| Emmons, Richard Conrad | Vancouver |
| Marwick, Edna Mary Ellen | Victoria |
| Wolfe, Miriam Bedingfield | Vancouver |
| *Partial.* | |
| Baxter, Catherine Florence (*nee* Weir) | Lougheed, Alta. |
| Bell, William Sidney | Vancouver |
| Bottger, Hermine Dorothea | Vancouver |
| Browne, Margaret | Vancouver |
| Gill, Margaret Susannah | North Vancouver |
| Houston, Dorothy Margaret | Vancouver |
| Rive, Alfred | Vancouver |
| FOURTH YEAR. | |
| Barclay, George Chapman | Central Park, B. C. |
| Best, Edgar Leslie | Vancouver |
| Bodie, Helena | Vancouver |
| Bolton, Dorothea Blanchard | Vancouver |
| Bradshaw, Kathryn Reade | Victoria |
| Broatch, Angus Campbell | Keeler, Sask. |
| Castleman, Gordon Cameron | Vancouver |
| Cayley, Beverley Cochrane | Vancouver |
| Chatwin, Alfred Hill | Vancouver |
| Clarke, Norma Gates | Bellingham, Wash. |
| Clement, Elsie Bonallyn | Vancouver |
| Coy, Norah Elizabeth | Vancouver |
| Emmons, William Frank | Vancouver |
| Frame, Eleanor Mary | Vancouver |
| Fulton, Ruth Vivia | Vancouver |
| Godsmark, James Edward | Derby, Eng. |
| Griffith, Meiriona Ellis | Vancouver |
| Harvey, Isobel | Vancouver |
| Henderson, Grace Kilpatrick | Vancouver |
| Hurst, Macleod Ewart | Kerrisdale, B. C. |
| Jackson, Lorne Hugh | Vancouver |
| Marshall, Abraham Lincoln | Victoria |
| Martin, Genevieve Noel McKinnon | Vancouver |

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| *Name.* | *Home Address.* |
|---|---|
| McGuire, Stella Victorine | Vancouver |
| McInnes, Harold Walker | Grand Forks, B. C. |
| McIntosh, Richard Harold | Vancouver |
| Miller, Arthur Harold | Vancouver |
| Morrison, Agnes McKenzie | Vancouver |
| Mounce, Irene | Vancouver |
| Richards, Edgar Charles | Victoria |
| Robertson, Hugh Milne | Vancouver |
| Sillers, Myrtle Adela Elizabeth | Carlyle, Sask. |
| Wilband, Hazel Grace | Vancouver |

*Partial.*

| | |
|---|---|
| Macdonald, Mary | Vancouver |
| Monteith, Mary Annette | Arnprior, Ont. |
| Taylor, Bina | Vancouver |
| Wright, Thomas Hall | Vancouver |

Graduates taking Partial Course:

| | |
|---|---|
| Clement, Shirley Pope | Vancouver |
| Mounce, Marion Jean | Vancouver |
| Peck, Kathleen Margaret | Vancouver |
| Suggitt, Maizie Anne | Vancouver |

## FACULTY OF AGRICULTURE.

### FIRST YEAR.

| *Name.* | *Home Address.* |
|---|---|
| English, John Frederick Kerr | Chilliwack, B. C. |
| Harris, Henry | Larkin, B. C. |
| Lamb, Cecil Alexander | Cloverdale, B. C. |
| Woodward, Robert Cecil | Victoria |

*Conditioned.*

| | |
|---|---|
| McKenzie, Frederick Francis | Marpole, B. C. |

*Partial.*

| | |
|---|---|
| Greenwood, Harold Day | Vancouver |
| Wright, Walter McMartin | Summerland, B. C. |

## FACULTY OF APPLIED SCIENCE.

### FIRST YEAR.

| | |
|---|---|
| Anderson, Robert Griffith | Vancouver |
| Cook, Archibald James | Marpole, B. C. |
| Gill, James Edward | Vancouver |
| Jane, Robert Stephen | Vancouver |
| Kingham, Joshua Rowland | Victoria |
| McLellan, Norman Wellington | Vancouver |
| Meekison, Andrew Gordon | Vancouver |
| Melville, John | Vancouver |

| *Name.* | *Home Address.* |
|---|---|
| Parks, William Henry | Vancouver |
| Swanson, Clarence Otto | Vancouver |
| Thompson, Gordon Maurice | Vancouver |

*Conditioned.*

| | |
|---|---|
| Stedman, Donald Frank | Vancouver |
| Taylor, Richard Cuthbert | Greenwood, B. C. |

*Partial.*

| | |
|---|---|
| Anders, Charles Harold | Vancouver |
| Waun, Arthur | Vancouver |

SECOND YEAR.

| | |
|---|---|
| Anderson, David Gash | Vancouver |
| Andrews, Henry Ivan | Vancouver |
| Ashwell, Ewart L. | Chilliwack |
| Aylard, Clayton Leslie | Victoria |
| Boomer, Edward Herbert | Vancouver |
| Gilchrist, George Gladstone | Vancouver |
| Glen, Herbert Douglas Stewart | Enderby, B. C. |
| Hardie, Roderick Campbell | Esquimalt, B. C. |
| James, Howard Turnbull | Vancouver |
| McKechnie, Donald Cowan | Marpole, B. C. |
| Morrison, Donald McKay | Vancouver |
| Rebbeck, James Waller | Vancouver |
| Tamenaga, Seiji | Vancouver |
| Wallace, Douglas Archibald | Vancouver |
| Yonemoto, Shinji | Vancouver |

*Conditioned.*

| | |
|---|---|
| Healy, Margaret Louise | Vancouver |
| MacDonald, Jack Lorraine | Vancouver |
| McQueen, Donald William | Vancouver |
| Melville, Andrew Harry | Vancouver |
| Thomson, William Gregg | Vancouver |

*Partial.*

| | |
|---|---|
| Huntingdon, Frank Alline | Vancouver |

THIRD YEAR.

| | |
|---|---|
| Bullard, Russell Joseph | Vancouver |
| Stedman, Horace George | Vancouver |

1918-19

## SUMMARY OF ATTENDANCE, SESSION 1917-18.

### MEN.

| Year | Undergraduates | Conditioned | Partial | Total | |
|---|---|---|---|---|---|
| Arts, IV. | 16 | .... | 1 | 17 | |
| III. | 12 | 2 | 2 | 16 | |
| II. | 24 | 7 | 6 | 37 | |
| I. | 68 | 15 | 3 | 86 | |
| | | | | — | 156 |
| Applied Science, III. | 2 | .... | .... | 2 | |
| II. | 15 | 4 | 1 | 20 | |
| I. | 11 | 2 | 2 | 15 | |
| | | | | — | 37 |
| Agriculture, I. | 4 | 1 | 2 | | 7 |
| | | | | | 200 |

### WOMEN.

| | | | | | |
|---|---|---|---|---|---|
| Arts, IV. | 17 | .... | 7 | 24 | |
| III. | 28 | 2 | 5 | 35 | |
| II. | 23 | 11 | 7 | 41 | |
| I. | 99 | 11 | 5 | 115 | |
| | | | | — | 215 |
| Applied Science, II. | .... | 1 | .... | 1 | |
| | | | | — | 1 |
| | | | | | 216 |
| Total | | | | | 416 |

### SHORT COURSES.

| | Returned Soldiers. | Civilians. | No. in Class. | |
|---|---|---|---|---|
| *Fruit Growing* | | | | |
| Nov. 20th—30th, 1917 | 44 | 6 | 50 | |
| *Agronomy and Animal Husbandry* | | | | |
| Jan. 8th—18th, 1918 | 48 | 41 | 89 | |
| *Mining* | | | | |
| Jan. 14th—Mar. 9th, 1918 | 28 | 20 | 48 | |
| *Vocational Training* for | | | | |
| Returned Soldiers | 71 | ... | 71 | |
| | 191 | 67 | 258 | |
| Total | | | | 258 |
| Total Registration | | | | 674 |

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# PASS LISTS, SESSIONAL EXAMINATIONS, 1918-19.

## FACULTY OF ARTS.

### FOURTH YEAR.

### CONFERRING DEGREE OF BACHELOR OF ARTS

William Frank Emmons, Lorne Hugh Jackson and Edgar Charles Richards, having enlisted for Service Overseas, are granted the Degree without examination.

PASSED.

(Names in Order of Merit.)

*Class I.*

Irene Mounce
Abraham Lincoln Marshall
Macleod Ewart Hurst
Kathryn Reade Bradshaw
Ruth Vivia Fulton

*Class II.*

Myrtle Adela Elizabeth Sillers
Meiriona Ellis Griffith
George Chapman Barclay
Harold Walker McInnes
Hazel Grace Wilband
Stella Victorine McGuire
Elsie Bonallyn Clement
Angus Campbell Broatch
Mary Macdonald
Helena Bodie
Norah Elizabeth Coy
Richard Harold McIntosh
Isobel Harvey
Genevieve Noel McKinnon Martin
Dorothea Blanchard Bolton
Agnes McKenzie Morrison
Beverley Cochrane Cayley
Arthur Harold Miller
Edgar Leslie Best
Hugh Milne Robertson

PASSED.

Norma Gates Clarke
Alfred Hill Chatwin
Gordon Cameron Castleman
Grace Kilpatrick Henderson
James Edward Godsmark (aegrotat)
Eleanor Mary Frame (aegrotat)

## MEDALS, SCHOLARSHIPS AND PRIZES.

### FACULTY OF ARTS—FOURTH YEAR.

1. Governor-General's Gold Medal.....Irene Mounce

FACULTY OF ARTS—THIRD YEAR.

1. Scholarship, $75.00 ..... Evelyn Christiana McKay
2. Scholarship, $75.00 ..... Roy Lars Vollum

FACULTY OF ARTS—SECOND YEAR.

1. Scholarship, $75.00 ..... Ethel Harris
2. Scholarship, $75.00 ..... Elizabeth Patricia Hamilton Smith
3. Scholarship, $75.00 ..... Evylin Caroline Lucas

FACULTY OF ARTS—FIRST YEAR.

1. Scholarship, $75.00 ..... Dorothy Blakey
2. Scholarship, $75.00 ..... Victoria Herman
3. Scholarship, $75.00 ..... Cyril Moss Goldstein

FACULTY OF APPLIED SCIENCE—SECOND YEAR.

1. Scholarship, $75.00 ..... Henry Ivan Andrews

FACULTY OF APPLIED SCIENCE—FIRST YEAR.

1. Scholarship, $75.00 ..... Clarence Otto Swanson
2. Returned Soldier Scholarship, $75.00 ..... Joshua Rowland Kingham

FACULTY OF AGRICULTURE—FIRST YEAR.

1. Scholarship, $75.00 ..... Cecil Alexander Lamb

PRIZES.

1. Prize, $25.00 (Book Prize), for Essay on "War Poetry"—
   Margaret Marion Burleigh Cameron,
   Hugh Llewellyn Keenleyside.
2. Prize, $25.00 (Book Prize), for Essay on "Price Regulation by Governments in a Time of Crisis"—
   Meiriona Ellis Griffith.

FACULTY OF ARTS—THIRD YEAR.

Robert Irwin Kellie, having enlisted for Service Overseas, is allowed to complete in one year.

PASSED.

(Names in Order of Merit.)

*Class I.*

Evelyn Christiana McKay
Roy Lars Vollum

*Class II.*

William George Sutcliffe
Muriel Grant
Clara Belle Dalton
Edith Gertrude Mann
Margaret Marion Burleigh Cameron
Isabel Martin Thomas
Ian Alastair Shaw
Edith Louise Howard
Muriel Helen Costley
Joseph Gordon Fraser
Norah Elizabeth Wallace
Harry Adam Dunlop (S)
Helen Fairchild Wesbrook
Pauline Emma Gintzburger
May Lilian Barclay
Inglis Hosang
Leopold Joseph Mahrer
Catherine Florence Baxter
Kosaburo Shimizu
Donna Enid Kerr
Constance Elizabeth Highmoor
Edna Mary Ellen Marwick

PASSED.

Marjory Gowan Peck
Lillian Martha Boyd
Richard Conrad Emmons (S)
Iris Ashwell
Alice Stockton Gross
Magnus Forbes Brown (S)
Miriam Bedingfield Wolfe (S)
Eldred Almack Murphy (S)
Ellen Craig Hunter
Olive Edmondson McLean (S)
Catherine Easterby Maynard
Janet Burnett Bain
Laura Marguerite Ketcheson
Eva Jean Rollston (S)
Mildred Alice Kelman (S)
Dylora Mary Swencisky (S)
Willard Gilmore McLellan (S)

Walter John Agabob (aegrotat)

## FACULTY OF ARTS—SECOND YEAR.

Harry Wilfred Colgan, Gordon James and Judson Orville Coates Kirby, having enlisted for Service Overseas, are granted their standing.

Robert Russell Hunter, Gerald James McClay and Alexander Murray Usher, having enlisted for Service Overseas, are allowed to complete in two years.

PASSED.

(Names in Order of Merit.)

*Class I.*

Ethel Harris
Elizabeth Patricia Hamilton Smith
Evylin Caroline Lucas
Henrietta Roy
Katherine Hall Pillsbury

*Class II.*

George Ernest MacKinnon
Walter James Couper
Hester Elizabeth Draper
Willson Havelock Coates
Marjorie Copping (S)
Jessie Roy
Elizabeth Barclay Abernethy
Gerald Myles Harvey
Hugh Llewellyn Keenleyside
Evelyn Clare Hanna
Bessie Fleming Dunsmuir
Daphne Maud Scharschmidt
Eugenie Ida Fournier (S)
Norma Isabel McGregor

PASSED.

Norah Kathleen Nowlan
Gertrude Gladys Porter
David Roy Davis
Edwin Telford James (S)
Margaret Ralston Morrison (S)
Verna Edna Morris
Laura Mary Swencisky
Allon Peebles
Mary Catherine Inrig (S)
John Donald Siddons
Aleen Harrison Gladwin
Ada Cordelia Myers (S)
Jessie Wallace Adam (S)
Jean Munro Davidson
Edwin Ethelbert Day (S)
Agnes Margaret Ure (S)
Adela Elizabeth Smith (S)
Alfred Harold Joseph Swencisky (S)
John Noel Weld (S)
Marjorie Day (S)
Charles Duncan Smith
Helena Elizabeth Boldrick (S)
Janet Kathleen Gilley (S)
Annie Graham Hill (S)
Junichi Hokkyo (S)
Frederick Charles Law (S)

The following students have completed their standing:

Merle Helena Alexander
Margaret Agnes Damer
Florence Annabel Irvine
John Cecil Thomas Nelson
Chesley Ernest Milley

## FACULTY OF ARTS—FIRST YEAR

*John Malcolm Stewart, having enlisted for Service Overseas, has been granted his standing.

Gordon C. Alen, having enlisted for Service Overseas, is allowed to complete in three years.

* Obiit.

PASSED.

(Names in order of merit.)

*Class I.*

Dorothy Blakey.
Victoria Herman.

*Class II.*

Cyril Moss Goldstein
Harold Clinton Etter
Florence Cowling
Mabel Agnes Simmonds
Bessie Willard Cox
Flora Mary Dougan
Leslie Thomas Fournier
Frank John Studer
Lila Frances Coates
Roy Walter Goranson
Harold Garfield Ingledew
Stewart Robertson McDougall
Isabella Elliott Crozier
Thomas Preston Peardon
Marion Evangeline Lawrence
Gerald Taylor Evans
Grace Winnifred Killip
Enid Muriel McKee

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James Reid Mitchell
Arthur Evan Boss
Jessie Alexandra MacBeth
Muriel Rose Munro
Chester T. Field
Ida Marjorie Howard
Sadie Edwards
Frederic Arthur Lazenby
Arthur Lightfoot Buell
Ruth Dulcie Robinson
Agnes Coupland Healy
Hattie May McArthur
Ralph Starrat Argue
Kathleen Esme Harper
Marjorie Bruce Sing
Morris Weinrobe
Violet Evelyn Dunbar
Charles Edwin Moody
Greta Hope McKee
Arthur Frederick Wilks
Albert Edward York
Irene Davin McAfee

PASSED.

Margaret Clarke
Wallace Swanzey Peck (S)
Everilda Wilson
Ruth Beatrice Hetherington
Annie Marie Smith (S)
Lacey Julian Fisher
Rona Alexandra Hatt
Margaret Christy Macdonald
Myrtle Esther Kilpatrick
Dorothy Isobel Adams
Frederick William Laird
Roland John Lanning (S)
Mary Dunlop
Harold William McLean
Helen McGregor Robson
Sylvia Goldstein (S)
Norah Vivian Jones
Cliffe St. John Mathers (S)
Jack MacDougall Arkley
*Phyllis Marion Ulmer Partridge*
Henry Jacob Vincent Fink
Jessie Katrina Lett
Wilbur Stuart Rogers
Julia Elizabeth Greenwood
Rhoda Kathleen St. George Parker
Reginald Edward Cribb (S)
Ethel Gwendolyn Suttie
Logan Seaforth McLennan
Nina Vivian Munn
Bonnie Helen Gill (S)
Winnifred Edith Hamson
Kathleen Evangeline McIntosh
Muriel Reed
Lillian Belle Hobson
Kathleen Gwynneth Owen Lewis
Archibald Laurence Harold Somerville (S)
Frederick Robertson Thurston (S)
Freda Lenore Wilson
Ferguson Ross Fraser
Jeanne Henderson Sutherland (S)
Marjorie Evelyn Gilley
Ruth Emily Lyness
Eunice Alberta Sewell (S)
Cecil Davis Taylor (S)
John Alexander Charles Harkness (S)
Robert James Munro
Winston Robinson Smith
Everett William Faulkner (S)
Nora Kathleen Keatley (S)
Nina Adell Mathers
Neil Mitchell McCallum (S)
Marion Eleanor Martha Sauder
*Vera Winnifred Bowell*
Angus Alexander Nicholson (S)
Norman Thatcher Grimmett (S)
James Fenton Herd (S)
Alan Macpherson Russell
Beatrice Lucy Lehman (S)
Arnold Alexander Webster (S)
Ruth Harrison (S)
Dorothy Aileen Hopper (S)
Harry Cecil Hearns (S)
Douglas Clarance Lee
Hazel Marie Thomson
Anita Cecilia McDonald (S)
Emmie Ada Milledge (S)
Helen Mortimer (S)

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John Earle Sager (S)
Dorothy Kathleen Carruthers (S)
Lionel Frank Pumphrey (S)
Edgar Solloway
Grace Agnes Wilson (S)
Jeannie McRae Keir (S)
Vera Alexandra James
Evelina Jessie McLeod Sutherland (S)
Dorothy Estelle Gilray (S)
Rachel Catherine Henderson (S)
George Stuart Kidd (S)
James Carrell Lynch
Mary Munro
Dorothy Elizabeth Lyne (S)
Gertrude Anna Kion
Victor Anders
Ronald Russell McNaughton (S)
Maude Elizabeth Rowan (S)
Minta Lucinda Audrey Ebert (S)
Nellie Milne Falconer (S)
Patricia Louise Cowan (S)
Dorothy Anne Bennett Brenchley (S)
Colin Hayter Crickmay (S)
Elmer Baldwin Ferris Collier (S)
Lorna Alexandria Lyllian Roberts (S)

Gladys Lilian Cale (Aegrotat).
Bessie Helene Killip (Aegrotat).
Evelyn Isabel Wright (Aegrotat).

The following students have completed their standing:—

Mary Beatrice Abel.
James Eakins Ellard.

## FACULTY OF AGRICULTURE—FIRST YEAR.

Harold Day Greenwood, having enlisted for Service Overseas, is granted his standing.

PASSED.

(Names in order of merit.)

*Class I.*

Cecil Alexander Lamb.

*Class II.*

Frederick Francis McKenzie.

PASSED.

Henry Harris.
John Frederick Kerr English.
Robert Cecil Woodward (S).

## FACULTY OF APPLIED SCIENCE—THIRD YEAR.

PASSED.

(Names in order of merit.)

*Class I.*

Horace George Stedman.

PASSED.

Russell Joseph Bullard.

## FACULTY OF APPLIED SCIENCE—SECOND YEAR.

David Gash Anderson, Donald William McQueen, Andrew Harry Melville, and William Gregg Thomson, having enlisted for Service Overseas, are granted their standing.

PASSED.

(Names in order of merit.)

*Class II.*

Henry Ivan Andrews
Clayton Leslie Aylard
Edward Herbert Boomer
Donald Cowan McKechnie
Shinji Yonemoto
Herbert Douglas Stewart Glen
Douglas Archibald Wallace

PASSED.

James Waller Rebbeck
Seiji Tamenaga (S)
Roderick Campbell Hardie (S)
Howard Turnbull James (S)
Ewart L. Ashwell (S)

The following student has completed his standing:—

Donald McKay Morrison.

## FACULTY OF APPLIED SCIENCE—FIRST YEAR.

Norman Wellington McLellan, having enlisted for Service Overseas, is granted his standing.

Archibald James Cook, having enlisted for service overseas, is allowed to complete in three years.

PASSED.

(Names in order of merit.)

*Class I.*

Clarence Otto Swanson.
James Edward Gill.
Donald Frank Stedman.

*Class II.*

John Melville.
William Henry Parks.
Gordon Maurice Thompson.

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PASSED.

Robert Stephen Jane.
Robert Griffith Anderson.
Joshua Rowland Kingham.
Andrew Gordon Meekison.
Charles Harold Anders (S).

## FACULTY OF ARTS—FOURTH YEAR.

FRENCH, 4. (SPECIAL.)

*Class I.*—Monteith; Griffith; and Wilband.

*Class II.*—Macdonald, M.; Coy; and McGuire.

*Passed.*—Bodie; Clarke, N. G.; Henderson, G. K.

FRENCH, 4. ORDINARY COURSE.

*Class I.*—Griffith; and Monteith.

*Class II.*—Wilband; Coy; Bodie; Macdonald, M.; and McGuire.

*Passed.*—Clarke, N. G.; Henderson, G. K..

GREEK, 3.

*Class II.*—Barclay, G. C.

CHEMISTRY, 7.

*Class I.*—Marshall.

*Class II.*—McIntosh, R. H.

CHEMISTRY, 9.

*Class I.*—Marshall; and Martin, G. M.

*Class II.*—Robertson.

FIRE ASSAYING.

*Passed.*—Marshall.

## FACULTY OF ARTS—THIRD AND FOURTH YEARS.

ECONOMICS, 2.

*Class I.*—Sutcliffe; Mounce, I.; Sillers.

*Class II.*—McInnes; and McKay; Macdonald, M.; Broatch; and Coy; Clement, E. B.; and Costley; Cameron; Robertson; Cayley.

*Passed.*—Martin, G. M.; and Miller; Gross; Bell; Bain; Murphy; McLellan, W. G.; Best; Henderson, G. K.; Nelson.

1918-19

ECONOMICS, 3.

*Class I.*—Sutcliffe; McKay; Hurst; Broatch; Macdonald, M.

*Class II.*—Coy; Griffith; and Hosang; Bradshaw; Harvey, I.; Wesbrook; Gintzburger; Costley; Fraser, J. G.; Bolton; and Shimizu; Emmons, R. C.; and Robertson.

*Passed.*—Castleman; Murphy; Gross; Morrison, A. M.; Chatwin; Boyd; Bell; and Henderson, G. K.; Ketcheson; Marwick.

ECONOMICS, 4.

*Class I.*—Sutcliffe.

*Class II.*—Hosang; and Hurst; Taylor, B.; Emmons, R. C.; Peck, M. G.

*Passed.*—Castleman; Chatwin.

ENGLISH, 5—DRAMA.

*Class I.*—Cameron; McGuire; Costley; and Harvey, I.

*Class II.*—Marwick; Sutcliffe; and Wilband; Shaw; Peck, M. G.; Cayley; and Mann.

*Passed.*—Alexander; Mahrer; Kelman; Gilley, J. K.; and Irvine; and Swencisky, D. M.

ENGLISH, 8.

*Class I.*—Grant; Bodie; and Marwick; and Morrison, A. M.

*Class II.*—Fulton; and Wesbrook; Peck, M. G.; Fraser, J. G.; Boyd; Mahrer.

*Passed.*—Maynard; Damer; and Bottger; Ketcheson; Gill, M. S.

ENGLISH, 9—MILTON AND SHAKESPEARE.

*Class I.*—Grant; Bradshaw; and Cameron; Bolton; Harvey, I.; and McGuire; and Taylor, B.

*Class II.*—Bodie; and Wilband; Martin, G. M.; Browne, M.; Cayley; and Sutcliffe.

*Passed.*—Best; Castleman; Henderson, G. K.; and Macdonald, M.; Hosang; Robertson; Rollston; Chatwin; Hunter, E. C.; and Shimizu.

GERMAN, 3.

*Class I.*—Griffith.

*Class II.*—Gintzburger.

*Passed.*—Bottger.

1918-19

HISTORY, 4.

*Class I.*—McGuire; Sutcliffe; McKay; Mahrer; and Wilband.

*Class II.*—Best; Clement, E. B.; and Costley; and Hosang; Bottger; Coy; Fraser, J. G.; Miller; Rollston.

*Passed.*—Bain; Irvine; McLellan, W. G.

HISTORY, 6.

*Class I.*—Macdonald, M.; and McKay; Bradshaw; Sillers.

*Class II.*—Chatwin; and Fraser, J. G.; Best; Bolton; Hurst; Castleman; Ketcheson; Boyd; and Rollston.

*Passed.*—Murphy; and Wolfe; Hunter, E. C.

LATIN, 4.

*Class I.*—Mounce; Clement, E. B.; and McInnes.

*Class II.*—Fulton; Barclay, G. C.; Morrison, A. M.; Clarke, N. G.; Miller; Gross; Highmoor.

*Passed.*—Dunlop, H. A.; Maynard; Gill, M. S.; Bell.

HISTORY OF MODERN PHILOSOPHY.

*Class I.*—Broatch; Bradshaw; and Grant.

*Class II.*—Howard, E. L.; Shimizu; Miller; Mahrer.

*Passed.*—Morrison, A. M.; Cayley; Marwick; Kerr, D. E.; Swencisky, D. M.; Emmons, R. C.

PHYSICS, 4.

*Class II.*—Shaw; McIntosh, R. H.

SPANISH, 1.

*Class II.*—Howard, E. L.; McIntosh, R. H.; Wallace, N. E.
*Passed.*—Ashwell, I.; Emmons, R. C.; Ross.

ZOOLOGY, 2.

*Class I.*—Dunlop, H. A.; and Vollum.
*Class II.*—Bell; and Brown, M. F.; Shaw; Robinson, D.

BACTERIOLOGY.

*Class I.*—Mounce; Fulton; McLean, O. E.

*Class II.*—Grant; and Kerr, D. E.; Chatwin; and Vollum; McIntosh, R. H.; Boyd; Baxter; Bolton; Robinson, D.; Gill, M. S.

*Passed.*—Castleman; Fraser, J. G.; Peck, M. G.; Kelman.

1918-19

## FACULTY OF ARTS—THIRD YEAR.

### ENGLISH, 7.

*Class I.*—Browne, M.; McKay; Grant; Cameron; and Highmoor; and Wesbrook.

*Class II.*—Marwick; and Shimizu; Gintzburger; Mahrer; Baxter; and Thomas; Shaw; Wallace, N. E.; Costley; and Ketcheson; and Sutcliffe.

*Passed.*—Bottger; and Boyd; and Fraser, J. G.; Wolfe; Peck, M. G.; Ashwell, I.; and Mann; and McLellan, W. G.; Gill, M. S.; and Swencisky, D. M.; Gross; Hosang; Bain; Howard, E. L.; Barclay, M. L.; and Dalton; and Kerf, D. E.; and Rollston; Hunter, E. C.; and Murphy; Brown, M. F.; and Kelman; and Maynard; and Vollum.

### FRENCH, 3.

*Class II.*—Gintzburger; Grant; Wallace, N. E.

*Passed.*—Ashwell, I.; and Thomas; Bottger; and Cameron; Costley; Hosang; and Wesbrook; Bain; and Peck, M. G.; Highmoor; and Hunter, E. C.; Maynard; Barclay, M. L.; and Kelman; Gill, M. S.; Browne, M.

### LATIN, 3.

*Class I.*—Dalton; Mann.

*Class II.*—Hunter, E. C.; Archibald; and Howard, E. L.; Barclay, M. L.; Ashwell, I.; Murphy; and Shimizu.

*Passed.*—Kelman; and Wolfe; Boyd; Swencisky, D. M.

### GERMAN, 2.

*Class I.*—McKay.

### ANALYTIC GEOMETRY.

*Class I.*—Thomas.

*Class II.*—Mann; Barclay, M. L.

*Passed.*—Dalton; and Wallace, N. E.

## FACULTY OF ARTS—SECOND YEAR.

### ENGLISH, 3—LITERATURE.

*Class I.*—Harris, E.; Lucas; and Smith, E. P.; Law; Roy, H.

*Class II.*—Roy, J.; James, E. T.; Pillsbury; Scharschmidt; Abernethy; and Copping; and Draper; and Dunsmuir; and Hanna; and Magee; and McGregor; and Nowlan.

*Passed.*—Morrison, M. R.; and Myers; Coates, W. H.; and Couper; and

Keenleyside; and MacKinnon; Harvey, G. M.; and Inrig; and Baxter; Weld; Morris; and Porter; and Ure; Fournier, E. I.; and Milley; and Smith, A. E.; Peebles; Davidson; Day, M.; and Swencisky, L. M.; Adam; and Boldrick; and Davis, D. R.; and dePencier; and Gladwin; and McKechnie, E. M.; and Siddons.

ENGLISH, 4—COMPOSITION.

*Class I.*—Harris, E.; Smith, E. P.; Keenleyside; and Pillsbury; and Roy, J.; Couper; and Magee; Lucas; and MacKinnon; and Nowlan; and Roy, H.

*Class II.*—Ure; Coates, W. H.; Abernethy; and Baxter; and Scharschmidt; Copping; Porter; Brown, M. F.; and Hanna; McGregor; Draper; Davidson; and Gladwin; and James, E. T.; and Morris; and Peebles.

*Passed.*—Morrison, M. R.; Swencisky, L. M.; Harvey, G. M.; Fournier, E. I.; Myers; Siddons; and Smith, C. D.; Dunsmuir; Inrig; and McKechnie, E. M.; Davis, D. R.; and Weld; McMurray; Boldrick; and Pratt; and Swencisky, A. H. J.; Woodward; Adam; and Day, M.; and dePencier.

FRENCH, 2,

*Class I.*—Harris, E.; Smith, E. P.; Lucas; Roy, H.; Pillsbury; Irvine; Copping; and MacKinnon.

*Class II.*—Abernethy; Roy, J.; Coates, W. H.; Draper; Porter; Magee; Hanna.

*Passed.*—Baxter; and Dunsmuir; Morris; and Scharschmidt; Nowlan; McGregor; Harvey, G. M.; and James, E. T.; Davis, D. R.; and Fournier, E. I.; Wolfe; Adam; and Inrig; Alexander; Gladwin; Damer; Ross; Davidson; and Siddons; and Smith, C. D.

LATIN, 2.

*Class I.*—Smith, E. P.; Lucas; Pillsbury; MacKinnon.

*Class II.*—Couper; and Dunsmuir; Roy, H.; Abernethy; and Hanna; Roy, J.; Coates, W. H.; Nowlan; Fournier, E. I.

*Passed.*—Inrig; and McGregor; Morris; and Swencisky, L. M.; James, E. T.; Adam; and Smith, A. E.; Porter; and Ross; Keenleyside; Peebles; Nelson; Davidson; and Day, E. E.; Alexander; and Boldrick; and Day, M.; and Swencisky, A. H. J.

GERMAN, 1.

*Passed.*—Smith, C. D.

PSYCHOLOGY.

*Class I.*—Harris, E.; Couper; Dalton; Bradshaw.

*Class II.*—Coates, W. H.; Harvey, G. M.; and Taylor, B.; Baxter; Pillsbury; Browne, M.; Scharschmidt; and Wolfe; McLean, O. E.

*Passed.*—Ure; Bolton; Gladwin; and Siddons; Clarke, N. G.; Ashwell, I.; and Castleman; and McKechnie, E. M.; Hunter, E. C.; and Magee; and Smith, A. E.; Weld; Chatwin; and Peebles; and Swencisky, L. M.; Kelman.

LOGIC.

*Class I.*—Dalton; Harris, E.; Couper; Harvey, G. M.

*Class II.*—Coates, W. H.; Pillsbury; Bradshaw; Scharschmidt; and Taylor, B.; Adam.

*Passed.*—Baxter; Marwick; and Wolfe; Peebles; Swencisky, L. M.; Browne, M.; Ashwell, I.; and Bolton; and McLean, O. E.; and Siddons; Gladwin; and Hunter, E. C.; Smith, A. E.; Clarke, N. G.; Castleman; and Chatwin.

ALGEBRA AND ANALYTIC GEOMETRY.

*Class I.*—Draper.

*Class II.*—Davis; Lucas; Smith, E. P.; Coates; and Copping; Myers.

*Passed.*—Nowlan; Gladwin.

HISTORY, 2.

*Class I.*—Harris, E.; and Keenleyside; MacKinnon.

*Class II.*—Couper; Harvey, G. M.; Siddons; Abernethy; and Cayley; and Roy, H.; Roy, J.; Peebles; Day, E. E.; and James, E. T.; and Magee; and Scharschmidt; and Smith, C. D.; Porter; Morrison, M. R.; dePencier; and McKechnie, E. M.; and Morris; and Pratt.

*Passed.*—Swencisky, A. H. J.; Davidson; and Dunsmuir; Hanna; and McGregor; and McMurray; Ure; Swencisky, L. M.; Weld; Robson, M. W.; Foerster; Day, M.; Boldrick; and Christie; Bickell.

ECONOMICS, 1.

*Class I.*—Harris, E.; Marshall; and McInnes; Sillers; and Thomas; Cayley; and Taylor, B.; Couper; and Harvey, G. M.; and Roy, H.

*Class II.*—Dalton; and Harvey, I.; Clement, E. B.; and Griffith; MacKinnon; and McGregor; Maynard; Howard, E. L.; and Keenleyside; Brown, M. F.; and Highmoor; and Robertson; and Swencisky, A. H. J.; Shimizu; Peebles; and Roy, J.; Mahrer; and Scharschmidt; Dunsmuir; and Porter.

*Passed.*—Abernethy; and Dunlop, H. A.; and Hanna; Day, E. E.; Magee; and Swencisky, L. M.; Alexander; and Hill; and Morrison, M. R.; Davidson; Morris; McLellan, W. G.; and Smith, C. D.; and Swencisky, D. M.; Siddons; Christie; and McLean, O. E.; and Robson, M. W.; Damer; and Pratt; and Ure; Bain; and Hokkyo; Day, M.

PHYSICS, 2.

*Class I.*—Draper; Mann.

*Class II.*—Copping; Barclay, M. L.; Davis, D. R.
*Passed.*—Swencisky, A. H. J.; Gintzburger.

BOTANY.

*Class I.*—Mounce; Hurst.
*Class II.*—Myers; and Wesbrook; McLean, O. E.; Broatch.
*Passed.*—Morrison, M. R.

## FACULTY OF ARTS—FIRST YEAR.

ENGLISH LITERATURE.

*Class I.*—Blakey; Dougan; Fort; Herman; and Simmonds; Coates, L. F.; and Etter; and Healy, A. C.; and Lanning; and Smith, A. M.; Cox; and Crozier; and Goldstein, C. M.; and Sing.

*Class II.*—Goranson; Cowling; and Munro, M. R.; McLean, H. W.; Ingledew; Howard, I. M.; and Lett; Killip, G. W.; and Peardon; and Sutherland, J. H.; Hatt; and Lamb; Gill, B. H.; and McKee, E. M.; Edwards; and Fisher; and McKee, G. H.; Field; and McDougall; and Milledge; Fournier, L. T.; and Greenwood, J. E.; and Livingstone; and MacBeth; and McAfee; Hetherington; and Kilpatrick; and Lawrence; and Lyness; and Mitchell.

*Passed.*—Dunlop, M.; and McArthur; Abel; and Harper; and Hobson; and Wilson, G. A.; and York; Evans; and Lazenby; and Sewell; and Wilks; Adams; and Clarke, M.; and Gilley, M. E.; and Henderson, R. C.; and Jones; and Lewis; and Mathers, N. A.; and Partridge; and Robinson, R. D.; and Turnbull; Cribb; and Gordon; and Harrison; and Laird; and Macdonald, M. C.; and McCallum; and McIntosh, K. E.; and Studer; and Weinrobe; Cale; and Hamson; Boss; and Carruthers, D. K.; and Hopper; and Lehman; and Mortimer; Anderson, O. G.; and Goldstein, S.; and Harris, H.; and Keatley; and Rowan; Fraser, R. F.; and McDonald, A. C.; and Parker; and Russell; and Smith, W. R.; Nicholson; Brenchley; and Dunbar; and Gilray; and Keir; and Wright, W. M.; Collier, E. B.; and Cowan, J. I.; and Crickmay; and Ellard; and McLennan; and Moody; and Roberts, L.; Herd; and Kemp; and Lyne; Bowell; and Buell; and Cowan, P. L.; and Ebert; and Kerr, M. I.; and McNaughton; and Munn; and Peck, W. S.; and Reed; and Rogers; and Sauder; and Solloway; and Sutherland, E. J.; and Suttie; and Thomson, H. M.; and Webster; and Wilson, E.; English; Anders, V.; Arkley; and Fink; and Kion; and Sommerville; Argue; and Faulkner, E. W.; and Robson, H. M.; and Sager; Grimmett; and Hearns; and Munro, M.; and Pumphrey; and Taylor, C. D.; and Wilson, F. L.; James, V. A.; and Lee; and Lynch; and Munro, R. J.; and Thurston.

ENGLISH COMPOSITION.

*Class I.*—Etter; Blakey; and Cowan, P. L.; and Dougan; Coates, L. F.; and Fort; and Taylor, B.; and Webster.

*Class II.*—Cribb; Adams; Argue; and Cale; and Ingledew; Herman;

Evans; and MacBeth; and Wright, E. I.; Cowling; and Edwards; and Gordon; and Milledge; and Peardon; Mitchell; and Rose; and Sing; Crickmay; and Faulkner, E. W.; and Goldstein, C. M.; and Howard, I. M.; and McAfee; and Simmonds; and Taylor, C. D.; Fisher; and Fournier, L. T.; and Lawrence; and Lett; and Mathers, N. A.; and McCallum; and McLean, H. W.; and Roberts, L.; and Smith, A. M.; Lanning; and McDougall; and Pumphrey; and Roberts, A. F.; and Rogers; and Suttie.

*Passed.*—Dunlop, M.; and Hamson; and Livingstone; and McIntosh, K. E.; Boss; and Collier, E. B.; and Cox; and Crozier; and Field; and Harvey, M.; and Healy, A. C.; and Hobson; Gill, B. H.; and Goldstein, S.; and Henderson, R. C.; and Hetherington; and Kemp; and Lyness; and Sewell; Harper; and Hatt; and Laird; and Rowan; and York; Kidd; and Lehman; and McKee, G. H.; and Reed; Anderson, O. G.; and Coffin; and Ebert; and Jones; and Kilpatrick; and Lamb; and McKee, E. M.; and Munn; Arkley; and Dunbar; and James, V. A.; and Munro, M. R.; and Russell; and Taylor, L. L.; and Wilks; Ferguson; and Greenwood, J. E.; and Keir; and Kion; and Lazenby; and Lewis; and Lyne; and Mackenzie, L. J.; and McArthur; and Nicholson; and Robinson, D.; Faulkner, W. T.; and Herd; and Hopper; and Keatley; and Kerr, M. I.; and Le Messurier; and Macdonald, M. C.; and McDonald, A. C.; and Page; and Parker; and Robson, H. M.; Anders, V.; and Barclay, W. S.; and Bowell; and Ellard; and Forsythe; and Killip, G. W.; and Layton; and Mortimer; and Munro, R. J.; and Smith, W. R.; and Studer; and Sutherland, E. J.; and Sutherland, J. H.; and Thurston; and Wastell; and Weinrobe; and Wilson, E.; and Wilson, F. L.; Abel; and Buell; and Carlyle; and Carruthers, D. K.; and Gilley, M. E.; and Gwyther; and Lee; and McLennan; and Munro, M.; and Mutrie; and Solloway; and Clarke, M.; and Goranson; and McKenzie, F. F.; and McNaughton; Bertrand; and Cowan, J. I.; and English; and Fink; and Fraser, F. R.; and Hall; and Hudson; and Killip, B. H.; and Moody; Gilray; and Harris, H.; and Harrison; and Sager; and Thomson, H. M.; and Turnbull; and Wilson, G. A.; and Wright, W. M.; Brenchley; and Grimmett; and Harkness; and Lynch; and Mackenzie, R. L.; and Mathers, C.; and Thomson, H. I.; Partridge; and Peck, W. S.; and Sauder; Somerville.

HISTORY, 1.

*Class I.*—Cale; and Etter; Blakey; Lanning; and Peardon; Clarke, M.; and Coates, L. F.; Dougan; Harvey, M.; and Hatt; and McArthur; and Wright, E. I.; Cowling; and Robinson, D.; Crozier; and Fort; and Goldstein, C. M.; and McLean, H. W.; and Simmonds; Cribb; and Gilray.

*Class II.*—Arkley; and Edwards; Adams; and Harrison; and Herman; and Killip, B. H.; and Killip, G. W.; and Mitchell; and Parker; Boss; and Coffin; and Fournier, L. T.; Kilpatrick; and Sing; Cox; and Milledge; and Turnbull; Howard, I. M.; and McKee, G. H.; Gill, B. H.; and Ingledew; and Munro, M. R.; and Smith, A. M.; and Weinrobe; and York; Bertrand; and Crickmay; and Dunbar; and McDougall; and Moody; and Nicholson; Abel; and Sutherland, E. J.; MacBeth; and Studer; Argue; and Dunlop, M.;

and Goldstein, S.; and Harper; and Hetherington; and Kion; and Lazenby; and Lewis; and Reed; and Rogers; and Thurston; and Webster; Brenchley; and Kerr, M. I.; and Lett; and McAfee; and McKee, E. M.; and Suttie; Cowan, J. I.; and Faulkner, E. W.; and Hopper; and Pumphrey; and Russell; Fisher; and Fraser, F. R.; and Jones; and Rowan; and Sewell; and Wilks; Faulkner, W. T.; and Healy, A. C.; and Herd.

*Passed.*—Field; and Macdonald, M. C.; and McIntosh, K. E.; Carruthers, D. K.; and Fink; and Keir; and Lynch; and Rose; and Sauder; and Wilson, E.; Goranson; and Grimmett; and McCallum; and McDonald, A. C.; and Mutrie; and Peck, W. S.; and Smith, W. R.; Barclay, W. S.; and Evans; and Gilley, M. E.; and Hudson; and McLennan; and Page; Hamson; and Harkness; and Lyness; and Partridge; and Robson, H. M.; Cartwright; and Ebert; and Eckert; and Greenwood, J. E.; and Hearns; and Henderson, R. C.; and Lawrence; and Lee; and Lehman; and Mortimer; and Munro, M.; and Roberts, L.; Bulman; and James, V. A.; and Kidd; and Livingstone; and Wilson, G. A.; Gordon; and Hobson; and Mackenzie, L. J.; and Mathers, C.; and Solloway; Bowell; and Keatley; and McNaughton; Ferguson; and Lyne; and Sager; and Sutherland, J. H.; and Vanderburgh; Collier, E. B.; and Cowan, P. L.; and Johnson, L. M.; and Laird; Anders, V.; and Buell; and Kemp; and Mathers, N. A.; and Wilson, F. L.; Wastell; Mackenzie, R. L.; Falconer; and Roberts, A. F.; and Taylor, C. D.; and Taylor, L. L.; and Thomson, H. M.; Ellard; Munn; Munro, R. J.

ALGEBRA.

*Class I.*—Blakey; Studer; Buell; Ingledew; Peardon; Lawrence; Lazenby; Herman; and Killip, G. W.; McKee, E. M.; and Peck, W. S.; Dunbar; and Simmonds; Fournier, L. T.; Argue; and Goldstein, C. M.

*Class II.*—Arkley; and Harper; Healy, A. C.; Cowling; and Cox; and Howard, I. M.; and Wilson, E.; Macdonald, M. C.; and McDougall; and Weinrobe; Boss; and Carlyle; and Goranson; and Harkness; and McArthur; and Mitchell; Irvine; and Moody; and Sauder; Bowell; and Falconer; and Laird; and McKee, G. H.; and Taylor, C. D.; and Wilson, F. L.; Crickmay; and McAfee; Coates, L. F.; and Crozier; and Field; Evans; and Munn; Fink; and MacBeth; and Mathers, C.; and Reed; and Robinson, R. D.; Gilley, M. E.; and Munro, M. R.; Fisher; and Lee; and Sager.

*Passed.*—Somerville; Grimmett; Dunlop, M.; and Greenwood, J. E.; and Hetherington; and Layton; Lett; and Robson; and Russell; Edwards; Adams; and Lyness; and McLean; Lewis; Kion; and McLennan; Abel; and Bulman; and Page; and Rogers; and Sing; Boyes; and Dougan; and Ellard; and Mackenzie, R. L.; McCallum; and Munro, R. J.; and Suttie; Carruthers, D. K.; and Cowan, J. I.; and McIntosh, K. E.; and Rushbury; Etter; and Hall; and Kerr, M. I.; and Mathers, N.; and Thomson, H. M.; and Wilks; and Damer; Ebert; and Kilpatrick; and Lynch; and Roberts, L.; and York; Hamson; and Hatt; and Partridge; and Wilson, G. A.; Cale; and Clarke, M.; and Hobson; and James, V. A.; and Smith, W. R.; Gilray; and Hopper;

and Parker; Gill, B. H.; Lehman; and Milledge; and Pumphrey; Fraser, F. R.; and Solloway; Jones; and Keatley; and Munro, M.; Sewell.

PHYSICS.

*Class I.*—Blakey; Goranson; Dougan; and Etter; and Herman; McDougall.

*Class II.*—Evans; and Fournier, L. T.; and Hall; McKee, E. M.; and Studer; Crozier; and Mitchell; and Robinson, R. D.; and Thurston; Coates, L. F.; and Cowling; and Munro, M. R.; and Simmonds; Argue; and Lamb; and Goldstein, C. M.; Boss; and Cox; and Mathers, C.; and Weinrobe; Dunbar; and Edwards; and Field; Fink; and Ingledew; and Killip, G. W.; and Wastell; McKee, G. H.; and Moody; and Peardon; Keatley; and Swencisky, L. M.; Goldstein, S.; and Lazenby; and Sutherland, E. J.

*Passed.*—Buell; and Laird; and Lett; and Solloway; Clarke, M.; and Healy, A. C.; and Peck, W. S.; and Smith, W. R.; Killip, B. H.; and McArthur; Robson, H. M.; and Taylor, C. D.; and Wilks; Dunlop, M.; and Howard, I. M.; and McCallum; and McNaughton; and Partridge; and Somerville; and Thomson, H. M.; and York; McLennan; and Parker; and Smith, A. M.; Carruthers, W. E.; and Kidd; and Lee; and Mackenzie, R. L.; and McAlister, P.; and Mortimer; and Wilson, E.; Adams; and Faulkner, E. W.; and Harper; and Hetherington: and Lawrence; and MacBeth; Jones; and MacDonald, M. C.; and Suttie; Gilray; and Grimmett; and Hamson; and Lyne; and Pumphrey; and Rogers; and Russell; Anders, V.; and Arkley; and Falconer; and Gill, B. H.; and Lyness; and Mathers, N. A.; and Sager; and Sing; and Sutherland, J. H.; Bulman; and Carlyle; and Gilley, M. E.; and Harris; and Hearns; and Robson, M.; and Sewell; Hobson; and McIntosh, K. E.; and McKenzie, F. F.; and Milledge; and Robinson, D.; Harrison; and Hatt; and Rowan; and Wilson, F. L.; Barclay, W. S.; and Fisher; Fraser, F. R.; and Kerr, M. I.; and LeMessurier; and Lewis; and McAfee; and Page; and Webster; English; Kilpatrick; and Lehman; and McLean, H. W.; Cribb; and James, V. A.; and Munro, M.; Hopper; and Keir; and Lynch; and Munro, R. J.; and Nicholson; and Sauder; Carruthers, D. K.; Bowell; and Greenwood, J. E.; and Reed; and Wilson, G. A.; Harkness; and Herd; Henderson, R. C.; Kion; and Munn.

TRIGONOMETRY.

*Class I.*—Blakey; Lawrence; Goranson; and Peardon; Lazenby; and Studer; Buell; Argue; and Fournier, L. T.; and Harkness; and Taylor; C. D.; Fisher; and Herman; and Peck, W. S.; Harper; and Laird; and Mitchell; Goldstein, C. M.; Cowling; and Nelson; Boss; and Ingledew; and Moody; Cox.

*Class II.*—Carlyle; and Crickmay; and Etter; and Simmonds; Parker; and Weinrobe; Clarke, M.; and Evans; and Faulkner, W. E.; and Killip, G. W.; York; Hearns; and Mackenzie, R. L.; and McArthur; and Wilson, E.; Crozier; and Munn; Hobson; and McAlister, P.; and McKenzie, F.F.; and

McLennan; and Robinson, R. D.; and Somerville; Coates, L. F.; and Layton; Field; Wilks; Dunbar; and Falconer; and Fink; and Fraser, F. R. Munro, M. R.; and Partridge; Arkley; and Howard, I. M.; and Roberts, L.; Abel; and Collier, E. B.; and Ellard; and Lee; and MacBeth; and Mathers, C.; and Mathers, N. A.; and McDougall; and Sing; Robson; and Wilson, F. L.

*Passed.*—McKee, E. M.; and Smith, A. M.; Herd; and McKee, G. H.; and Nicholson; and Thomson, H. M.; Collier, L.; and Grimmett; and Healy, A. C.; and Taylor, R. C.; Cale; and Goldstein, S.; and Lamb; and Lett; and McAfee; and Sauder; Carruthers, W. E.; and Killip, B. H.; Cribb; and Gordon; and Harrison; and McIntosh, K. E.; and Sutherland, J. H.; Boyes; and Dunlop, M.; Hetherington; and Kidd; and Lynch; and Lyne; and Macdonald, M. C.; and Russell; and Taylor, L. L.; Edwards; and Munro, R. J.; and Wright, E. I.; Bowell; and McNaughton; Jones; and Kion; and Lyness; and McCallum; and Reed; and Rushbury; and Webster; Granger; and James, V. A.; and Kilpatrick; and Lewis; and Rogers; Dougan; and Gill, B. H.; and Greenwood, J. E.; and Sager; McLean, H. W.; Anders, V.; and Gilley, M. E.; and Henderson, R. C.; and McDonald, A. C.; Thurston; Adams; and Smith, W. R.; Hamson; and Hatt; and Lanning; and Munro, M.; and Solloway; Mortimer; Suttie; Pumphrey; and Sewell; and English.

GREEK.

*Class I.*—Munro, R. J.
*Class II.*—Cribb.
*Passed.*—Webster.

LATIN, 1.

*Class I.*—Blakey; Goldstein, C. M.; and Herman; Cowling; and Lawrence; and Wright, E. I.; Cox; Simmonds; Etter; Dougan; and Edwards; and Ingledew; and MacBeth.

*Class II.*—Fournier, L. T.; and Moe; Sing; Killip, G. W.; Field; and Howard, I. M.; and Kilpatrick; and Lanning; and McAfee; and York; Crozier; and Studer; Jones; and Killip, B. H.; Harper; and Suttie; Clarke, M.; and Coates, L. F.; Lazenby; and Munn; Adams; and Macdonald, M. C.; and McKee, E. M.; and Munro, M. R.; and Peardon; Wilson, E.; Hamson; and Mitchell.

*Passed.*—Fraser, F. R.; Arkley; and Herd; and McArthur; James, V. A.; and Lehman; McLean, H. W.; and Munro, M.; and Pumphrey; and Wilks; Argue; and Cribb; and Gill, B. H.; and Gilley, J. K.; and Sewell; and Wood, M.; Buell; and Dunlop, M.; and Faulkner, E. W.; and Healy, A. C.; and Hobson; and McDonald, A. C.; Fisher; and Henderson, R. C.; and McKee, G. H.; Reed; and Whiteside; Carruthers, D. K.; and Fink; Bowell; and Cale; and Cowan, P. L.; and Partridge; Keir; and Lewis; and Nicholson; Barclay, W. S.; and Gilley, M. E.; and Hopper; and Robson, H. M.;

Lyness; and Rogers; and Sauder; Boyes; and Brenchley; and Goldstein, S.; and Rose; Johnson, L. M.; and Lett; and McLennan; Anders, V.; and Webster; Abel; and Sutherland, J. H.; Mortimer; and Solloway; Lynch; Mathers, N. A.; and Thurston; Lyne; Harkness; Milledge and Munro, R. J.; Peck, W. S.

FRENCH.

*Class I.*—Blakey.

*Class II.*—Goldstein, C. M.; and Herman; MacBeth; and Simmonds; Cox; and Dougan; Etter; Crozier; Cowling; and Goldstein, S.; and Healy, A. C.; and Lanning; Robson, H. M.; Lawrence; and McKee, E. M.; and McKee, G. H.; and Smith, A. M.; and Studer; Coates, L. F.; and Goranson; and Kilpatrick; and Wilson, E.; Field; and Killip, G. W.; Ingledew; and McAfee; and McArthur; and Munro, M. R.; and Partridge; and Wright, E. I.; Damer; and Fournier, L. T.; and Mitchell; and Sing.

*Passed.*—Adams; and Howard, I. M.; and Macdonald, M. C.; Hatt; and York; Dunlop, M.; and Lazenby; and Lewis; and McDougall; and Nelson; Boss; and Clarke, M.; and Fisher; and Greenwood, J. E.; and Harper; and Keatley; Dunbar; and Edwards; and Johnson; and Jones; and Keir; and Mathers, N. A.; Evans; and Hetherington; and McDonald, A. C.; and McLean, H. W.; and Munn; and Reed; and Wilson, G. A.; Argue; and Ebert; and Gill, B. H.; and Kion; and Laird; and Moody; and Mortimer; and Sewell; Abel; and Bowell; and Gilley, M. E.; and Hamson; and Hopper; and Smith, W. R.; and Sutherland, J. H.; and Weinrobe; Nicholson; Cale; and Carruthers, D. K.; and Killip, B. H.; and Sauder; and Wilson, F. L.; Cowan, J. I.; and Hobson; and Mutrie; Harrison; and Munro, M.; and Sutherland, E. J.; and Suttie; and Taylor, L. L.; and Vanderburgh; Harvey, M.; and Herd; and Lyne; and Milledge; and Thomson, H. M.; Ballentine; and Cartwright; and Cowan, P. L.; and Henderson, R. C.; and Lyness; and McIntosh, K. E.; and Rose; and Rowan; Anders, V.; and Arkley; and Brenchley; and Collier, E. B.; and Eckert; and Faulkner, E. W.; and Fink; and Fraser, F. R.; and Hudson; and Kemp; and Kidd; and Lehman; and Mackenzie, L. J.; and Milley; and Parker; and Roberts, L.; and Robinson, D.; and Somerville; and Taylor, C. D.; James, V. A.; Lett; Grimmett; and Mathers, C.; Lee; Hearns; and Russell.

BEGINNERS' GERMAN.

*Class I.*—McKenzie, F. F.

*Class II.*—Hetherington.

*Passed.*—Cartwright; Gilray.

## ARTS AND APPLIED SCIENCE.

CHEMISTRY, 2.

*Class I.*—Stedman, H. G.; Barclay, G. C.

*Class II.*—McKechnie, D. C.; Martin, G. R.; Day, E. E.; Gross.

*Passed.*—Bullard, R. J.; Morrison, D. M.; Tamenaga; Wilby.

CHEMISTRY, 3.

*Class I.*—Shaw; and Stedman, H. G.; Thomas.

*Class II.*—Vollum; Kerr, D. E.

CHEMISTRY, 4.

*Class I.*—Stedman, H. G.; Shaw; Vollum.

*Class II.*—Martin, G. M.

*Passed.*—Kerr, D. E.; and Morrison, D. M.; Harvey, I.; Barclay, G. C.

CHEMISTRY, 5.

*Class I.*—Fulton; Vollum.

*Class II.*—Kerr, D. E.; McIntosh, R. H.; Martin, G. M.; Harvey, I.; Robertson.

GEOLOGY, 1.

*Class I.*—Bradshaw; Cameron; Stedman, H. G.; Fulton; Bodie; Sillers; Henderson, G. K.

*Class II.*—Keenleyside; Bolton; Clarke, N. G.; Kerr, D. E.; Wallace, N. E.; McInnes.

*Passed.*—Marwick; Emmons, R.C.; Gilley, J.K.; Ketcheson; Bullard, R.J.

MINERALOGY, 1.

*Class I.*—Hurst; Beltz; Barclay, G. C.; Marshall.

*Class II.*—Martin, G. R.; and Stedman, H. G.

*Passed.*—Ellard; Bullard, R. J.; Shaw; Wilby.

MATHEMATICS, 3.—CALCULUS.

*Class I.*—Barclay, M. L.; Thomas; Yonemoto; Mann; McKechnie, D. C.; Wallace, N. E.; Andrews.

*Class II.*—James, H. T.; Dalton; and Tamenaga; Boomer; Aylard; Morrison, D. M.; and Wallace, D. A.; Glen; Hardie, R. C.

*Passed.*—Rebbeck.

MATHEMATICS, 4—CALCULUS.

*Class I.*—Stedman, H. G.; Marshall.

MATHEMATICS, 4.—PROJECTIVE GEOMETRY AND MATHEMATICAL DRAWING.

*Class I.*—Stedman, H. G.; Marshall.

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ELECTRICAL ENGINEERING.

*Class I.*—Stedman, H. G.; Marshall.

## ARTS, APPLIED SCIENCE AND AGRICULTURE.

CHEMISTRY, 1.

*Class I.*—Gill, J. E.; Stedman, D. F.; and Wallace, D. A.; Aylard; McDougall; Evans; Boomer; Parks; and Peck, W. S.; Boss; and Wilks.

*Class II.*—Buell; Dunlop, H. A.; and Fournier, L. T.; and Lamb; Robinson, R. D.; Glen; and Moody; and Robinson, D.; Goranson; and Hatt; and Kingham; Dunbar; and James, H. T.; and Peardon; and Rogers; and Yonemoto; Mathers, C.; and Rebbeck; Anders, C. H; and Andrews; and Greenwood, J. E.; and Hardie, R. C.; and Hearns.

*Passed.*—Harkness; McIntosh, K. E.; and Sager; Thurston; Somerville; and Weinrobe; Ashwell, E. L.; and Parker; and Smith, A. M.; and Wilson, F. L.; McKenzie, F. F.; Kidd; and Laird; and Lee; and Lynch; and McLennan; Falconer; Ebert; and McCallum; Harris, H.; Ellard; and Gilray; and Grimmett; and Meekison; and Mutrie; Kion; and Smith, W. R.; Harrison; and Russell; and Sutherland, E. J.; and Wilson, G. A.; Taylor, C. D.; and Woodward; Thomson, H. M.; English; Keatley; Barclay, W. S.; and Solloway.

THIRD YEAR—SUMMER ESSAY.

*Class I.*—Bullard, R. J.

## FACULTY OF APPLIED SCIENCE.

FIRST YEAR.

Norman Wellington McLellan, having enlisted for Service Overseas, is granted his standing.

Archibald James Cook, having enlisted for Service Overseas, is allowed to complete in three years.

## FACULTY OF APPLIED SCIENCE—FIRST YEAR.

PASSED.

(Names in Order of Merit.)

*Class I.*

Clarence Otto Swanson.
Donald Frank Stedman.
James Edward Gill.

*Class II.*

John Melville.
William Henry Parks.
Gordon Maurice Thompson.

PASSED.

Robert Stephen Jane.
Robert Griffith Anderson.
Joshua Rowland Kingham.
Andrew Gordon Meekison.
Charles Harold Anders (S).

FACULTY OF APPLIED SCIENCE—SECOND YEAR.

David Gash Anderson, Donald William McQueen, Andrew Harry Melville, and William Gregg Thomson, having enlisted for Service Overseas, are granted their standing.

PASSED.

(Names in Order of Merit.)

Henry Ivan Andrews.
Clayton Leslie Aylard.
Edward Herbert Boomer.
Donald Cowan McKechnie.
Shinji Yonemoto
Herbert Douglas Stewart Glen
Douglas Archibald Wallace.

PASSED.

James Waller Rebbeck.
Seiji Tamenaga (S).
Roderick Campbell Hardie (S).
Howard Turnbull James (S).
Ewart L. Ashwell (S).

The following student has completed his standing:

Donald McKay Morrison.

FACULTY OF APPLIED SCIENCE—THIRD YEAR.

PASSED.

(Names in Order of Merit.)

*Class I.*

Horace George Stedman.

PASSED.

Russell Joseph Bullard.

THIRD YEAR—STRUCTURAL ENGINEERING, 3.

*Passed.*—Bullard, R. J.

GENERAL MINING.

*Class I.*—Morrison, D. M.

*Passed.*—Bullard, R. J.

THIRD YEAR—MINE SURVEYING.

*Class II.*—Bullard, R. J.

THIRD YEAR—GENERAL METALLURGY.

*Class II.*—Bullard, R. J.

THIRD YEAR—ORE DRESSING.

*Passed.*—Bullard, R. J.

THIRD YEAR—GENERAL ENGINEERING, 2.

*Class II.*—Bullard, R. J.

THIRD YEAR—MECHANICAL ENGINEERING, 2.

*Passed.*—Bullard, R. J.

THIRD YEAR—MECHANICAL ENGINEERING, 3.

*Class II.*—Bullard, R. J.

THIRD YEAR—ENGINEERING ECONOMICS.

*Class I.*—Stedman, H. G.

*Class II.*—Morrison, D. M.

*Passed.*—Bullard, R. J.

SECOND YEAR—SURVEYING, 1.

*Class I.*—Boomer.

*Class II.*—Aylard; Wallace, D. A.; and Yonemoto; McKechnie, D. C.; Andrews.

*Passed.*—James, H. T.; Ashwell, E. L.; Glen; Rebbeck; Hardie, R. C.; MacDonald, J. L.; and Tamenaga.

SECOND YEAR—FIELD SURVEYING, 1.

*Class I.*—Glen; Andrews; Melville, J.; Huntington.

*Class II.*—Rebbeck; Hardie, R. C.; and McKechnie, D. C.; Anderson, D. G.; and Healy, M. L.; Aylard; and Boomer; and McQueen; Ashwell, E. L.

*Passed.*—Tamenaga; and Yonemoto; Wallace, D. A.; Thomson, W. G.; James, H. T.; and MacDonald, J. L.

SECOND YEAR—GENERAL ENGINEERING, 1.

*Class I.*—Wallace, D. A.; Andrews; Aylard.

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*Class II.*—Boomer; Glen; James, H. T.; Hardie, R. C.; and Yonemoto; McKechnie, D. C.; Tamenaga; Rebbeck; Ashwell, E. L.; and MacDonald, J. L.

SECOND YEAR—MECHANICAL ENGINEERING, 1.

*Class II.*—Andrews; Yonemoto; McKechnie, D. C.; and Wallace, D. A.; Tamenaga.

*Passed.*—Aylard; and Boomer; James, H. T.; Glen; Rebbeck; Hardie, R. C.; Ashwell, E. L.

SECOND YEAR—SHOPWORK, 2.

*Class I.*—Boomer.

*Class II.*—Glen; Andrews; and Hardie, R. C.; Wallace, D. A.

*Passed.*—Rebbeck; Yonemoto; Ashwell, E. L.; and Aylard; and Tamenaga; James, H. T.; McKechnie, D. C.

SECOND YEAR—MECHANICAL DRAWING.

*Class II.*—Ashwell, E. L.; Aylard; and Tamenaga; Andrews.

*Passed.*—Boomer; and Hardie, R. C.; Rebbeck; Yonemoto; Healy, M. L.; Wallace, D. A.; James, H. T.; Glen; and MacDonald, J. L.; and McKechnie, D. C.

SECOND YEAR—MECHANICS, 2.

*Class I.*—Andrews.

*Class II.*—McKechnie, D. C.; Yonemoto; Tamenaga.

*Passed.*—Boomer; and Glen; Aylard; Rebbeck; Wallace, D. A.; James, H. T.

SECOND YEAR—MAPPING, 1.

*Class II.*—Ashwell, E. L.; Aylard; Hardie, R. C.; and Tamenaga; and Wallace, D. A.; Glen; and Rebbeck; Yonemoto; Andrews.

*Passed.*—Boomer; Healy, M. L.; McKechnie, D. C.; James, H. T.; MacDonald, J. L.

SECOND YEAR—STRUCTURAL ENGINEERING, 1.

*Class I.*—Boomer; Glen; Andrews; James, H. T.

*Class II.*—Aylard; McKechnie, D. C.; Ashwell, E. L.

*Passed.*—Rebbeck; and Yonemoto; Hardie, R. C.; Wallace, D. A.; Tamenaga.

SECOND YEAR—PHYSICS, 2.

*Class II.*—Aylard; Andrews; Rebbeck; Gilchrist; and Glen.

*Passed.*—Boomer; Hardie, R. C.; and McKechnie, D. C.; Tamenaga; Yonemoto; Wallace, D. A.; Morrison, D. M.

FIRST YEAR—ALGEBRA.

*Class I.*—Gill, J. E.; and Swanson; Melville, J.; Stedman, D. F.

*Class II.*—Parks.

*Passed.*—Jane; Thompson, G. M.; Meekison; Kingham; Anderson, R. G.

FIRST YEAR—PLANE AND SPHERICAL TRIGONOMETRY.

*Class I.*—Gill, J. E.; Swanson; Melville, J.; Thompson, G. M.

*Class II.*—Stedman, D. F.; Kingham; and Parks; Jane; Meekison.

*Passed.*—Anderson, R. G.

FIRST YEAR—DESCRIPTIVE GEOMETRY.

*Class I.*—Stedman, D. F.; Swanson.

*Class II.*—Gill, J. E.; and Melville, J.; Thompson, G. M.

*Passed.*—Jane; and Parks; Anderson, R. G.; and Meekison; Kingham; Anders, C. H.

FIRST YEAR—MECHANICS, 1.

*Class I.*—Stedman, D. F.; Swanson.

*Class II.*—Gill, J. E.; Thompson, G. M..

*Passed.*—Parks; Jane; Melville, J.; Anderson, R. G.; Meekison.

FIRST YEAR—PHYSICS.

*Class I.*—Stedman, D. F.; Swanson; Parks; Gill, J. E.; Melville, J.

*Class II.*—Thompson, G. M.; Anderson, R G.; and Jane; Kingham.

*Passed.*—Meekison; Anders, C. H.

FIRST YEAR—MECHANICAL DRAWING.

*Class II.*—Melville, J.; and Stedman, D. F.; and Swanson; Thompson, G. M.; Kingham; Anders, C. H.

*Passed.*—Gill, J. E.; and Parks; Anderson, R. G.; and Jane; Waun; Meekison.

FIRST YEAR—FREEHAND DRAWING.

*Class I.*—Anders, C. H.

*Class II.*—Thompson, G. M.; Parks; Meekison; and Melville, J.; Swanson; Stedman, D. F.; Gill, J. E.; Waun.

*Passed.*—Anderson, R. G.; Jane; Kingham.

FIRST YEAR—SHOPWORK, 1.

*Class II.*—Swanson; Thompson, G. M.; Melville, J.; Gill, J. E.

*Passed.*—Anderson, R. G.; Anders, C H.; and Parks; and Stedman, D. F.; Kingham; Jane; Meekison.

## FACULTY OF AGRICULTURE.

FIRST YEAR—ANIMAL HUSBANDRY, 1.

*Class I.*—Lamb.

*Class II.*—McKenzie, F. F.; English.

*Passed.*—Harris, H.; Wright, W. M.

FIRST YEAR—BIOLOGY.

*Class I.*—Lamb.

*Class II.*—Brown, M. F.; Barclay, W. S.; McKenzie, F. F.; and Woodward; Harris, H.

*Passed.*—English; Wright, W. M.

FIRST YEAR—FRENCH.

*Class I.*—Lamb.

*Class II.*—English.

*Passed.*—Harris, H.

1918-19

The following attended the Short Course in Fruit Growing, from November 20th to November 30th, 1917:

| *Name.* | *Home Address.* |
|---|---|
| Archibald, Grace Florence | Alta Lake |
| Baker, Henry Edgar | Vancouver |
| Bigilow, Ernest Whitman | Port Coquitlam |
| Buckerfield, Thomas Henchman | Vancouver |
| Burrows, Alfred Fernand | North Vancouver |
| Carr, William Henry | Penticton |
| Cook, J. A. | Vancouver |
| Coventry, Edward Willis | Penticton |
| Fraser, Andrew | New Westminster |
| Furness, Ernest Cecil | New Westminster |
| Goyns, Bertram Francis | Vancouver |
| Gray, John A. H. | Vancouver |
| Gray, John Russell | Vancouver |
| Harris, Henry Charles N. | Vancouver |
| Hayes, Harold Hubert | Victoria |
| Herridge, Herbert Wilfred | Nakusp |
| Hobson, David | Vancouver |
| Humphreys, Stanley Alfred | Burnaby |
| Jones, H. V. M. | Hatzic |
| Jones, John | South Vancouver |
| Kay, C. | |
| Leigh, Walter | Vedder River P. O. |
| Lewis, Reuben Arthur | Vancouver |
| Loxton, William Henry | Central Park |
| Mackay, Donald | Vancouver |
| Markham, Lieut.-Col. Alfred | Vancouver |
| Marshall, E. M. | |
| Martindale, Arthur | Vancouver |
| McInnes, John William | Winnipeg, Man. |
| Milledge, Arthur | East Burnaby |
| Mills, Frederick William | Burnaby |
| Northwood, James Henry | Vancouver |
| O'Brien, Charles | Vancouver |
| Pybus, Henry | Vancouver |
| Rae, Matthew Stewart | Victoria |
| Redman, Rev. William Henry | South Vancouver |
| Richardson, Thomas E. | Victoria |
| Richmond, William | Prince Rupert |
| Roberts, William Thomas | Port Hammond |
| Rollins, William Alan | Vancouver |
| Searl, John William | Vancouver |
| Simmons, William Lindgate | Vernon |
| Stuart, John Keith | Alexandria P. O. |

1918-19

| *Name.* | *Home Address.* |
|---|---|
| Stubbs, Fred James | Vancouver |
| Thomas, W. | Vancouver |
| Topper, Robert | Mission City |
| Tucker, F. J. | New Westminster |
| Tyson, John | Vancouver |
| Whyte, J. | |
| Wilson, Mrs. Edith McLaren | Vancouver |

List of students registered in the Short Course in Mining, from January 14th to March 9th, 1918:

| | |
|---|---|
| Arnold, Harry | Vancouver |
| Ashworth, James | Vancouver |
| Avis, Pte. J. | Vancouver |
| Baker, Pte. H. | Resthaven, V. I. |
| Bentley, Pte. Wm. L. | Vancouver |
| Bottger, G. C. | Vancouver |
| Chrystal, E. C. | Vancouver |
| Creighton, James | Penticton |
| Cruickshank, W. | Vancouver |
| Fisher, S. W. | Ladner |
| Frame, W. J. | Dawson, Y. T. |
| Fraser, Pte. A. | Vancouver |
| Gay, Pte. A. J. | Vancouver |
| Gill, John | Vancouver |
| Gregory, George J. | Vancouver |
| Grell, John | Princeton |
| Hamilton, Charles T. | Vancouver |
| Healey, Pte. A. C. | Vancouver |
| Hendry, R. M. S. | Vancouver |
| Herring, A. M. | New Westminster |
| Hinnitt, H. H. | Vancouver |
| Job, P. J. | Vancouver |
| Jones, F. A. | Vancouver |
| Jones, W. | Vancouver |
| Kay, Pte. C. | Vancouver |
| Kastoff, T. | Vancouver |
| Kirwin, A. | Vancouver |
| Legace, F. R. | Vancouver |
| McCallum, W. H. M. | Vancouver |
| McIntyre, M. | Merritt |
| McRae, Pte. F. W. | Vancouver |
| Meloche, F. F. | Blubber Bay |
| Munro, C. H. | Vancouver |
| Newton, L. V. | Cawston |

1918-19

| *Name.* | *Home Address.* |
|---|---|
| Pearson, N. | Vancouver |
| Savage, W. C. | Vancouver |
| Schuthe, G. L. | Vancouver |
| Smith, Arthur | North Burnaby |
| Smith, T. J. | Vancouver |
| Southin, Lieut. J. W. | Ladysmith |
| Street, H. H. | South Vancouver |
| Thomas, E. J. | Vancouver |
| Thomas, D. H. | Kerrisdale |
| Thomas, R. R. | Qualicum |
| Tingley, H. H. | Vancouver |
| Webster, J. L. | Vernon |
| Whaley, Pte. W. | Vancouver |
| White, Pte. W. H. | Qualicum |

List of Short Course students, Agronomy and Animal Husbandry, January, 1918:

| | |
|---|---|
| *Allen, Edward Chas. Francis (R.S.) | Kaslo |
| Amoore, B. W. (R. S.) | Kaslo |
| Barratt, J. S. (R. S.) | North Gabriola Island |
| Bason, A. (R. S.) | |
| Baynes, Richard Fred | Matsqui |
| Beaumont, James (R. S.) | Golden |
| Bigelow, E. W. (R. S.) | |
| Bool, F. (R. S.) | Salmon Arm |
| Bowers, C. H. (R. S.) | |
| Bland, William E. | Vancouver |
| Brough, James M. | Vancouver |
| Burns, J. L. | Cloverdale |
| Cameron, Alice Ann | Vancouver |
| Clarke, Joseph | Vancouver |
| Clouston, Thomas | Lougheed, Alta. |
| Collett, Horace | Kelowna |
| Collins, W. C. (R. S.) | Grand Forks |
| Coventry, Edward M. | Penticton |
| Delorme, P. A. (R. S.) | Vernon |
| Donaldson, Elizabeth Florence (Mrs.) | Vancouver |
| Dundas, Adam | Vancouver |
| Erskine, James, Jr. | Eburne |
| Farmer, W. R. (R. S.) | |
| Finch, John (R. S.) | Vancouver |
| Forsythe, A. G. (R. S.) | |
| George, James | Coughlan |
| Goffin, R. H. | Port Haney |
| Goodchild, Charles Robert | Matsqui |

* Returned Soldier.

| *Name.* | *Home Address.* |
|---|---|
| Grantham, Frederic Charles | Vancouver |
| Gray, John Russell | Vancouver |
| Greenwood, Chas. E. | Vancouver |
| Grieve, James | Chilliwack |
| Grouch, H. L. (R. S.) | |
| Hayes, Harold H. (R. S.) | Victoria |
| Haywood, E. J. (R. S.) | |
| Hereson, M. | Kelowna |
| Herridge, H. W. (R. S.) | Nakusp |
| Hopwood, G. W. (R. S.) | |
| Johnson, Henry Mayott | North Vancouver |
| Jones, H. (R. S.) | |
| Keller, Cornelius James, Capt. (R. S.) | North Vancouver |
| Kennedy, D. (R. S.) | |
| Kennedy, G. (R. S.) | Duncan, V. I. |
| Kerr, E. D. (R. S.) | Vancouver |
| Lehrman, Charles (R. S.) | South Vancouver |
| Lewis, R. A. (R. S.) | |
| MacLurg, David | Point Grey |
| McClellan, J. E. | Vancouver |
| Markham, Col. (R. S.) | Vancouver |
| Martindale, A. (R. S.) | |
| Mathewson, J. E. (R. S.) | |
| Millar, S. L., Cpl. (R. S.) | Vancouver |
| Mole, John | Kerrisdale |
| Morris, Colin J. (R. S.) | Vancouver |
| Morris, David | Cambria, B. C. |
| Nickolls, W. M. (R. S.) | |
| Northwood, J. H., Sgt. (R. S.) | |
| Page, W. M. | Matsqui |
| Parker, John Goffe | Vancouver |
| Payne, William | Clinton |
| Postell, V. (R. S.) | |
| Potts, Pte. (R. S.) | |
| Paxton, J. L. (R. S.) | |
| Pratt, H. H. (R. S.) | |
| Pybus, Henry | Vancouver |
| Raney, Frank C. | Kerrisdale |
| Redman, William Henry, Rev. | Vancouver |
| Rive, Charles | Vancouver |
| Roberts, W. T. (R. S.) | Port Hammond |
| Robertson, G. S. (R. S.) | |
| Robinson, Gilbert | Duncan, V. I. |
| Rose, Mark C. | Steveston |
| Sharpe, A. E. (R. S.) | |
| Siddall, R. (R. S.) | De Roche |

1918-19

| *Name.* | *Home Address.* |
|---|---|
| Simmons, W. L. (R. S.) | Vernon |
| Symes, H. H. (R. S.) | |
| Strachan, David W. | Kamloops |
| Swanson, Charles Gustaf | Vancouver |
| Thomas, D. H. (R. S.) | Kerrisdale |
| Thompson, John J. | Eburne |
| Townsend, Allan R. | Ladner |
| Townsend, William R. | Ladner |
| Turner, James | Victoria |
| Vetleson, Gustave | Spence's Bridge |
| Waring, Fred. | Vancouver |
| Welford, Herbert, Lieut. (R. S.) | Vancouver |
| Williams, J. C. (R. S.) | Lulu Island |
| Williamson, Alfred | Cumberland |
| Williamson, Edward | Cumberland |

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List of students in attendance at the Short Course in Vocational Training for Returned Soldiers, January 7th:

| | |
|---|---|
| Anderson, Albert | Vancouver |
| Anderson, J. | Blue Springs |
| Arnold, Thomas | Vancouver |
| Attridge, Edward | Vancouver |
| Baldie, Alexander | |
| Bennett, Dixon | South Vancouver |
| Blow, James | Vancouver |
| Brazier, Herbert | Vancouver |
| Brush, John W. | Vancouver |
| Burrows, Charles Edward | Vancouver |
| Campbell, Charles | Vancouver |
| Cannell, Richard Thomas | Vancouver |
| Carter, William | Vancouver |
| Clifton, John | Vancouver |
| Copithorne, Thomas Francis | Vancouver |
| Crawford, Henry | Vancouver |
| Darkis, Roy Darold | West Summerland |
| Dawson, John | Vancouver |
| England, Francis G. | Vancouver |
| Esplin, John | Burnaby |
| Faulkner, Arthur James | Iron Springs, Alta. |
| Faulkner, Gordon Herbert | Vancouver |
| Flood, James | Vancouver |
| Greenard, Ralph | Vancouver |
| Hepburn, Andrew | Prince Rupert |
| Higginbotham, Thomas | Victoria |

| *Name.* | *Home Address.* |
|---|---|
| Holdom, Leslie David John | Vancouver |
| Hopkins, John | Victoria |
| Hopkins, Harold John | Victoria |
| Hopwood, George William | South Vancouver |
| Hulbert, William George | Vancouver |
| Jameson, Frank | Vancouver |
| Johnstone, Thomas Glass | Vancouver |
| Jones, Richard | Vancouver |
| Jones, William Evan | Briton Ferry, S. Wales |
| Ker, Edwin Dickson | Vancouver |
| Lehrman, Charles | South Vancouver |
| Mahy, Edgar | Point Grey |
| McCoy, Frank | Ladysmith |
| McLean, Donald | Vancouver |
| Millar, James Archibald | Mission City |
| Millar, John | Vancouver |
| Montgomery, William | Vancouver |
| Moris, George | Vancouver |
| Murphy, Thomas | Vancouver |
| Myers, John William | Vancouver |
| Palmer, Willet | Vancouver |
| Parkes, Ernest | Vancouver |
| Peacock, Thomas | South Vancouver |
| Peart, William Emerson | New Westminster |
| Perovitch, R. M. | Vancouver |
| Peterson, J. | South Vancouver |
| Pike, William Chesney | Vancouver |
| Pinson, John George | Westholme, V. I. |
| Powell, Joseph James | Vancouver |
| Richmond, R. | Prince Rupert |
| Ryall, Frank | Vancouver |
| Sapsted, Thomas William | Vancouver |
| Smylie, Robert Henry | North Vancouver |
| Sweatman, Eric A. | Vancouver |
| Todd, C. H. | Victoria |
| Turmel, Jean | Vancouver |
| Waddington, John Frederick | Victoria |
| Walker, Alexander | New Westminster |
| White, Thorpe Leslie | Centralia, Wash. |
| Whitehead, Thomas | Victoria |
| Willoughby, Percy | South Vancouver |
| Wood, Frederick G. | New Westminster |
| Workman, William Frederick | Vancouver |
| Wright, James | Lashburn, Sask. |
| Zuehlke, Frederick | Vancouver |

# SESSIONAL TIME-TABLES

# CLASS-WORK

1918-19

# ARTS' TIME-TABLE 1918-1919

| | Year | Monday | Year | Tuesday | Year | Wednesday | Year | Thursday | Year | Friday | Year | Saturday |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 1<br>2<br>3,4 | 1-2-4 Mathematics,1<br>French, 2<br>History, 4<br>Philosophy, 2 | 1<br>2<br>3<br>4 | 2-3 Latin Comp. 1<br>1-4 Mathematics, 1<br>Mathematics, 2<br>Zoology (2nd term)<br>English, 7<br>Mathematics, 4 | 1<br>2<br>3,4 | 1-4 Latin Comp., 1<br>2-3 Mathematics, 1<br>English, 3<br>Geology, 2<br>History, 4<br>Philosophy, 2 | 1<br>2<br>3,4 | 3-4 English, 1<br>1-2 English, 2<br>Mathematics, 2<br>Zoology (2nd term)<br>Geology, 5<br>German, 3<br>History, 3<br>Latin, 3 | 1<br>2<br>3,4 | 2-3-4 Mathematics,1<br>German, 2<br>Latin, 2<br>Economics, 6<br>Geology, 2<br>History, 4<br>Philosophy, 2 | 1<br>1,2<br>2,3,4 | 5 Physics, Lab., 1<br>Chemistry, 1<br>Geology (dist.), 1<br>Chemistry, 2 |
| 10 | 1<br>2<br>3,4<br>4 | 1-2 English, 1<br>3-4 English, 2<br>Latin, 2<br>German, 2<br>Agriculture,<br>Economics, 5<br>French, 4<br>Histology<br>Mathematics, 3<br>Philosophy, 4<br>Mathematics, 4 | 1<br>1,2<br>2<br>3,4 | Greek, 1<br>Chemistry, 1<br>Geology, 1<br>English (Dist.), 3<br>German, 3<br>History, 3<br>Latin, 3 | 1<br>2<br>3<br>3,4<br>4 | 3-4 English, 1<br>1-2 Physics, 1<br>German. 2<br>Latin, 2<br>Mathematics, 3<br>Agriculture<br>Economics, 5<br>Embryology<br>French, 4<br>Philosophy, 4<br>Mathematics, 4 | 1<br>1,2<br>2<br>2,3,4<br>3,4 | German, 1<br>Greek, 1<br>Chemistry (dist.),1<br>Geology, 1<br>French (dist.), 2<br>Philosophy (dist.),1<br>Physics (dist.), 2<br>English, 10<br>Spanish, 1 | 1<br>1,2<br>2<br>2,3,4<br>3<br>3,4<br>4 | Latin, 1<br>Biology, 1<br>Mathematics,<br>(Dist.), 2<br>Economics (dist.),1<br>Mathematics, 3<br>Agriculture<br>Mathematics, 4 | 1<br>1,2<br>2,3,4 | 5 Physics Lab., 1<br>Chemistry, 1<br>Geology (dist.), 1<br>Chemistry, 2 |
| 11 | 1<br>1,2<br>2<br>3,4 | Latin, 1<br>Biology, 1<br>Mathematics, 2<br>Chemistry, 5<br>Economics, 2<br>English, 8 | 1<br>2<br>2,3,4<br>3,4 | History, 1<br>Philosophy, 1<br>Physics, 3<br>Chemistry, 3<br>English, 6<br>Latin, 4<br>Spanish, 1 | 1<br>1,2<br>3,4 | 3,4 Mathematics, 1<br>Biology Lab.<br>Geology, 5<br>German, 3<br>Latin, 3 | 1<br>2,3,4<br>3,4 | 1-2 English, 1<br>3-4 Physics, 1<br>Geology, 3<br>Economics, 2<br>English, 8 | 1<br>2,3,4<br>3,4 | 1 Mathematics, 1<br>3-4 Physics, 1<br>Chemistry, 2<br>Geology, 5<br>German, 3<br>Latin, 3 | 1<br>1,2<br>2,3,4 | 6 Physics, Lab., 1<br>Chemistry, 1<br>Geology (dist.), 1<br>Chemistry, 2 |
| 12 | | | | | 1,2<br>2,3,4 | Biology Lab.<br>Geology, 3 | | | | | 1 | 6 Physics, Lab. |

1918-19

| | | | |
|---|---|---|---|
| 1 | 1 4 French, 1<br>2 Philosophy, 1<br>2,3,4 Physics, 2<br>3,4 Chemistry, 3<br>English, 6<br>Latin, 4<br>Spanish, 1 | 1 2 French, 1<br>1 Physics Lab., 1<br>2 English, 4<br>3,4 Chemistry, 5<br>Economics, 2<br>English, 8 | 1 B. Latin, 1<br>2 French, 2<br>2,3,4 Physics, 2<br>3,4 French, 3 |
| 2 | 1 2 French, 1<br>German, 1<br>Greek, 1<br>2 History, 2<br>2,3,4 Economics, 1<br>3,4 Bacteriology, 2<br>(1st term)<br>Bacteriology, 1<br>(2nd term)<br>Geology, 4 | 1 3 French, 1<br>1 Physics Lab., 1<br>2 German, 2<br>Latin, 2<br>3,4 Agriculture<br>Chemistry, 5 | 1 German, 1<br>Greek, 1<br>1,2 Chemistry, 1<br>Geology, 1<br>3,4 Bacteriology, 2<br>(1st term)<br>Bacteriology, 1<br>(2nd term)<br>Embryology and<br>Histology |
| 3 | 1 3 French, 1<br>1,2 Biology (dist.), 1<br>2,3,4 Geology, 3<br>3,4 Bacteriology, 2<br>(1st term)<br>Bacteriology, 1<br>(2nd term)<br>Geology, 4 | 1 1 French, 1<br>3 Physics, Lab , 1<br>2 French, 2<br>3,4 Chemistry, 5<br>Economics, 6<br>History, 4<br>Philosophy, 2 | 1 Physics (dist.), 1<br>2 History, 2<br>2,3,4 Economics, 1<br>3,4 Bacteriology, 2<br>(1st term)<br>Bacteriology, 1<br>(2nd term)<br>Embryology and<br>Histology<br>Geology, 4 |
| | 1,2 Geology (dist.), 1<br>2,3,4 Geology, 3<br>3,4 Bacteriology, 2<br>(1st term)<br>Bacteriology, 1<br>(2nd term)<br>French, 3<br>Geology, 4 | 1 3 Physics, Lab., 1<br>Military Drill | 1 1 French, 1<br>3,4 Embryology and<br>Histology<br>Geology, 4 |

| | | | | |
|---|---|---|---|---|
| 1 1 French, 1<br>1 2 Physics, Lab.<br>2,3,4 Chemistry, 2<br>Geology (dist.), 3<br>3 Mathematics, 3<br>3,4 Embryology and Histology | 1 4 French, 1<br>1-2 Physics<br>2 English, 3<br>3,4 Chemistry, 3<br>Geology, 2 | | | |
| 1 4 French, 1<br>1 2 Physics Lab.<br>2,3,4 Chemistry, 2<br>Geology (dist.), 3<br>3,4 Bacteriology, 2<br>(1st term)<br>Bacteriology, 1<br>(2nd term)<br>Embryology and Histology | 1 French (dist.), 1<br>1,2 Chemistry, 1<br>2 History, 2<br>2,3,4 Economics, 1<br>3,4 Chemistry, 3<br>Geology 2 | | | |
| 1 2 French, 1<br>1 4 Physics Lab.<br>2,3,4 Chemistry, 2<br>3,4 Bacteriology, 2<br>(1st term)<br>Bacteriology, 1<br>(2nd term)<br>French, 3 | 1 3 French, 1<br>1,2 Chemistry, 1<br>2 Philosophy, 1<br>2,3,4 Physics, 2<br>3,4 Chemistry, 3<br>English, 10<br>Geology 2<br>Spanish, 1 | | | |
| 1 4 Physics Lab.<br>Military Drill | 1 German, 1<br>1,2 Chemistry, 1<br>2,3,4 Physics, 2<br>3,4 French, 3 | | | |

## AGRICULTURE TIME-TABLE, 1918-1919

| | Year | Monday | Year | Tuesday | Year | Wednesday | Year | Thursday | Year | Friday | Year | Saturday |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 1<br>2 | Mathematics<br>French, II<br>German, II | 1<br>2 | Mathematics<br>Botany | 1<br><br>2 | French, I<br>German, 1<br>English | 1<br>2 | English Compos<br>Botany | 1<br>2 | French, I<br>Agronomy<br>Horticulture | 2 | Chemistry, Lab. |
| 10 | 2 | Agronomy, II<br>Horticulture, II | 1<br>2 | Chemistry, I<br>English | 1<br>2 | Physics<br>Animal Husbandry,<br>Poultry, I | 1<br>2 | Horticulture, I<br>Animal Husbandry<br>Horticulture | 1<br>2 | Biology<br>Botany | 2 | Chemistry, Lab. |
| 11 | 1<br>2 | Biology, I<br>Botany | 1<br>2 | German, 1<br>Animal Husbandry<br>Poultry | 1<br>2 | Biology I, Lab.<br>Botany, Lab. | 1<br>2 | Agronomy, I<br>French, II<br>German, II | 1<br>2 | Mathematics<br>Chemistry, II | 2 | Chemistry, Lab. |
| 12 | | | | | 1<br>2 | Biology I, Lab.<br>Botany, Lab. | | | | | | |
| 1 | 1 | Agronomy, I<br>Animal Husbandry | 1<br>2 | Physics, Lab.<br>English Comp. | | | 1<br><br>2 | Horticulture<br>Animal Husbandry<br>Chemistry II, Lab. | 1<br>2 | Physics<br>English | | |
| 2 | 1 | *Agronomy*, I<br>Animal Husbandry | 1<br>2 | *Physics*, Lab.<br>Animal Husbandry,<br>Poultry, I | 1<br>2 | *Chemistry*<br>Agronomy, II<br>Horticulture, II | 1<br><br>2 | *Horticulture*<br>Animal Husbandry<br>Chemistry II, Lab. | 1<br>2 | Chemistry, Lab.<br>Animal Husbandry<br>Poultry | | |
| 3 | 1<br>2 | Biology, I, Lab.<br>Agronomy, II<br>Botany, Lab. | 2 | Animal Husbandry<br>Poultry | 1<br>2 | Animal Husbandry<br>Agronomy, II<br>Horticulture, | 1<br><br>2 | Horticulture<br>Animal Husbandry<br>Chemistry II, Lab. | 1<br>2 | Chemistry, Lab.<br>Animal Husbandry<br>Poultry | | |
| 4 | 1<br>2 | Biology, I, Lab.<br>Agronomy, II<br>Botany, Lab. | | Military Drill | 1<br>2 | Animal Husbandry<br>Agronomy, II<br>Horticulture, | | Military Drill | 1<br>2 | Chemistry, Lab.<br>Animal Husbandry<br>Poultry | | |

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