

December 9th, 1927.

Dean H. M. Mackay,
Faculty of Applied Science,
McGill University.

Dear Dean Mackay:-

There is a matter which I have often thought of mentioning to you, but in case I should continue to overlook it I had better mention it to you now.

One of our graduates when visiting in Ottawa recently had some conversation with a Mr. Lynch, a graduate of ours in the Government service. Mr. Lynch stated that when the Dominion Government called for applications for positions for which graduates in Science might be expected to reply he noticed that a great many applications came from Queen's men and scarcely any from McGill. Now this may indicate that McGill graduates are so well placed that they are satisfied with their present positions, or it may mean that Queen's have some organization for bringing these vacancies more readily to the notice of their graduates.

Let me know some time what your appreciation of the situation is.

Yours faithfully,

Principal.

MCGILL UNIVERSITY
MONTREAL

FACULTY OF APPLIED SCIENCE
OFFICE OF THE DEAN

December 16th, 1927.

Sir Arthur Currie, G.C.M.G., K.C.B.,
Principal.

Dear Sir Arthur:-

After thinking over your letter of Dec. 9th regarding the difference in the relative numbers of McGill and Queen's graduates who apply for Civil Service positions under the Dominion Government, I am inclined to think that this difference does not arise so much from any lack of information on the part of our graduates as from their attitude towards Government positions.

My own experience is that it is rather hard to interest a graduate in a Government position even although he has no other immediate prospect in sight. Colleagues who have been active in placing graduates say the same thing. Broadly, our graduates think that the chances for promotion in Government service are less, and also that in a considerable number of positions the experience they are likely to get does not fit them particularly well for other lines of work should they desire to make a change. I feel that there is considerable foundation for both of these opinions. I have information on hand regarding the earnings

Sir Arthur Currie,

P.2.

since graduation of 600 of our graduates, Of these 35 or 40 have Government positions. At the start the latter, on the average, received 5 to 10 per cent more than those entering commercial positions, but the relation between their earnings goes down steadily, until, after 20 years' service, the average income of a Government employee is only about 40 per cent of that of the whole body, and the "median" income about 55 per cent of that of the whole body.

There are a good many lines of employment under the Government which are so specialised that the experience gained therein is of comparatively little value in other lines of work. I can speak with some feeling about this, because I was for three years in the Civil Service, more than thirty years ago, and although the work was quite interesting I have always regarded the time so spent as practically wasted. There are, however, certain circumstances in which I would have no hesitation in recommending a graduate to go into the Government service: wherever the line of work is interesting to him and is likely to expand, as, for instance, is the case in the design of aircraft and the like where excellent opportunities may arise. I have placed two or three men with Col. Stedman and I think all concerned are satisfied. In certain routine positions again, I think that a certain type of man (who is steady and reliable, but has little initiative,) may do just as

Sir Arthur Currie.

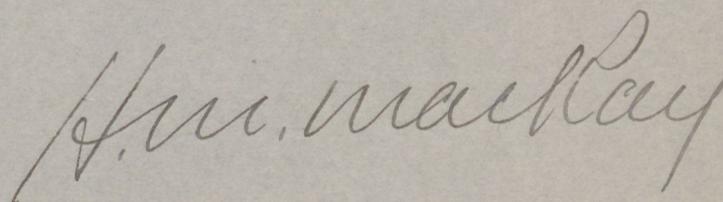
P.3.

well as in any other line of work. Broadly-speaking, however, I think that the instinct of our graduates is fairly sound in this respect. I do not know why more Queen's men apply, but it has been suggested to me that a larger proportion of them may come from surroundings in which a Government position and the salaries attached seem more attractive than they do to the bulk of our graduates. This, however, is merely a theory.

We always direct the attention of graduates who are on our list as unemployed to Government positions, but with the response as limited as it is, it hardly seems worth while to go further than we are already doing.

Of course the above remarks and considerations do not apply to the employees under certain Government Commissions, or to the Canadian National Railway. We have a number of graduates in the latter organization who are in excellent positions, such as Bond, Brookes, Needham, Henry and several others.

Yours faithfully,

A handwritten signature in cursive script, reading "H. M. Mackay". The signature is written in dark ink and is positioned below the typed name "Dean".

Dean.



OFFICE OF THE PRESIDENT

February 20, 1931

Sir Arthur W. Currie, Principal
McGill University
Montreal, Quebec, Canada

My dear Sir Currie:

It is the desire of the Massachusetts Institute of Technology to come into closer relations with colleges and universities from which it receives students by transfer or for graduate work. It hopes to facilitate their admission by furnishing them with information and advice in regard to their choice of subjects to be offered for credit, to help them in planning to make up deficiencies, if they have any, by taking summer work, and in general to enable them to carry out their post-graduate program with the least possible expense and delay.

With this object in view, Professor James L. Tryon, Director of Admissions at the Institute, will call at McGill University the latter part of March, the exact date to be fixed later, and I shall appreciate your courtesy if you will put him into relations with officers who serve as advisers to students who are expecting to pursue further studies after finishing their work at your institution.

Cordially yours,

Karl T. Compton

President

February 23, 1931.

Professor E. Brown,
Acting Chairman,
Faculty of Engineering.

Dear Professor Brown,

The following communication has been received by Sir Arthur Currie, from the President of the Massachusetts Institute of Technology:-

"It is the desire of the Massachusetts Institute of Technology to come into closer relations with colleges and universities from which it receives students by transfer or for graduate work. It hopes to facilitate their admission by furnishing them with information and advice in regard to their choice of subjects to be offered for credit, to help them in planning to make up deficiencies, if they have any, by taking summer work, and in general to enable them to carry out their post-graduate program with the least possible expense and delay.

"With this object in view, Professor James L. Tryon, Director of Admissions at the Institute, will call at McGill University the latter part of March, the exact date to be fixed later, and I shall appreciate your courtesy if you will put him into relations with officers who serve as advisers to students who are expecting to pursue further studies after finishing their work at your institution."

Will you deal with this as you see fit, and make suitable acknowledgement on behalf of the Principal?

Yours faithfully,

CWS



MCGILL UNIVERSITY

25th April 1933.

MEMORANDUM TO THE PRINCIPAL:-

I beg to inform you that Assembly Bill No.193, amending the Civil Engineers Act, with the amendments agreed to by myself on behalf of the Faculty of Engineering, was duly sanctioned on the 13th April 1933 and is now known as the Act 23 George V, chapter 81.

A handwritten signature in dark ink, appearing to read 'W. J. B. 502', written over a horizontal line.

Director of Extra-Mural Relations.

Handwritten initials 'W. J. B.' written vertically in dark ink.

April 18, 1932.

J.A.L.Waddell, Esq., D.E., LL.D.,
150 Broadway,
New York, N.Y.

My dear Dr. Waddell,

Let me acknowledge your letter of April 14th, with reference to Mr. Wessman, who wishes to teach structural engineering in a university. I am afraid that owing to present conditions which preclude any expansion of our staff there is no possible chance of a vacancy here. I am sending your letter on, however, to Dean Ernest Brown, for future reference or in case he has any enquiries for a man of Mr. Wessman's qualifications.

Ever yours faithfully,

Principal.

May 25th, 1932.

Mr. Harold E. Wessman,
Care Waddell & Hardesty,
Consulting Engineers,
150 Broadway,
New York, N. Y.

Dear Mr. Wessman,

Let me thank you for your letter of May 19th, with enclosures, which I have noted carefully. I am sorry that under present conditions I can hold out no hope of a vacancy where we might utilize your services, but I am asking the Dean of Engineering to keep your application current.

Yours faithfully,

Principal.

ENGINEERS

Old among engineering colleges. Founded about 10 years after M.I.T. Was soon recognized. At first housed in the East Wing. In 1893 moved to the first Engineering Building. At this time was recognized as one of the most notable schools of engineering in the world. Received donations from many sources including a wonderful set of Kinematic models from a German professor. Unfortunately these were burned in the fire of April 5th, 1907, when building was almost completely destroyed. The old building was scene of some of the first McGill dances so that the Plumbers' Ball can claim respectable antiquity.

If a University is to be judged by its products, McGill's Faculty of Engineering need not fear comparison with any school. Catalogue of graduates distinguished in their own field is a long one. We should have heard ~~more~~ more than we have about them had the Engineer had the faculty of getting himself before the public or of making money. If you were anxious to do either you would not be engineers. The engineer's principal object seems to be to do a good job without much fuss, and the economic history of Canada shows what a good job Canadian engineers have done.

WAR SERVICE

Fetherstonhaugh - now Dean of Manitoba
Wen Perry
Scotty Duguid
E. J. Mason
Herbert Molson
W. B. Anderson
T. V. Anderson
A. A. Anderson

Killed

Stitt - in charge of Water Corps H.Q. - Last thing he thought of before he died was that a well near Corps H. Q. was not pure.

Harold McDonald
Andy McNaughton
Eric McGuaig

George Baillie) Libraries named for them
G. Blackader |
Fred Fisher, V.C.
Jack Moyses - son of the dean.

At present school handicapped for funds, never by lack of devotion, enthusiasm or ability in staff.
Look forward to development of graduate work as well as to strengthening of undergraduate department.

Engineering Survey Key

So direct is bearing of articles prepared by late Dean H.M. MacKay that they are given intact, following are topics discussed:-

- A. Results international survey of engineering education by S.P.E.E.
- B. General objective and curriculum of engineering courses; preliminary training
- C. Provision of new or increased laboratory facilities in hydraulics, mechanical engineering, electrical engineering, municipal engineering.
- D. Changes in curriculum including: abolition of shopwork; requirements regarding engineering experience before graduation; new courses in communications, preparation of reports, public speaking.
- E. Special emphasis laid on need new building for Mining, Metallurgy and Geology, and on development of graduate work, requiring both staff and scholarships of adequate amount.

And, compiled from a questionnaire then sent out (B927-28) this is opinion of graduates on such questions as:-

- A. Extent to which college training provided a proper scientific and technical training for future work.
- B. Quality or sufficiency of relationship between subjects studied in college and the problems and procedure of engineering practice.
- C. Objectives of an engineering course; subjects of greatest professional value; desirable subjects for study not included in curriculum.
- D. Relative values of academic attainment, personal qualities such as initiative, leadership, etc; and value of college training in developing qualities looked for in engineers in practice.

It was found that our general policy and aims were in harmony with recommendations resulting from the International Survey.

Re Mathematics and Cultural Subjects.

The whole question of matriculation is under review now by the Matriculation Board. The pre-engineering year course should be made more suitable to engineering needs by being made a part of their own curriculum, but for present there can be no change.

Specialized courses

Such as Industrial, Ceramic, Marine, Radio, Textile, etc. engineering. The best opinion is opposed to over specialisation. Legitimate needs of specialization can usually be made by providing options in the fourth year courses. This Faculty holds tenaciously to the view that the curriculum should be the same in the first 2 years of all engineering courses. Some 25 years ago a dept. of railroad engineering was established here. It was found that graduates in civil or mechanical engineering were well qualified to go into rr. work. Experience proved t

a separate organisation was not necessary.

Fuel Engineering
has not been a successful venture.

Survey Camp

Suggests establishment permanent survey camp in the mountains, perhaps could use Y.M.C.A. or Boy Scouts' existing summer camps. Ste. Annes no longer suitable.

English Course

There is necessity for revising course in English for 1st year Arts and senior matriculation English for engineering students.

Engineering Physics

There is really little to justify the term "Engineering" unless students take the 5th year in Electrical Engineering. With that 5th year the course is practically an honours course in Mathematics and Physics in the Faculty of Arts and Science.

Budget

Attention is drawn to the lack of fellowships and scholarships sufficient in amount to attract students from elsewhere or to encourage our best students to remain for a year after graduation and engage in a combined course of teaching and research. The provision of open fellowships of substantial amount in the graduate school would attract an increasing number of men here from other universities and would aid us in making junior appointments.

Salaries should be adequate in the teaching staff to attract outside new blood. We should not become ingrown. Our graduates have been chosen for engineering professorships in most of the leading universities and colleges in this country.

Registration

A chart showing registration in the ten years.

A chart showing that Toronto since 1925 has risen rapidly in engineering registration and McGill has not risen at all.

Graduates going to U.S.

An impression that large numbers of our graduates were lost to this country because of better opportunities elsewhere was not supported by the facts and figures of incomes of men of 5 to 20 years standing were almost same in both countries. 10.7% of our graduates reside in U.S. Almost 40% in Montreal and district.

Needs.

- A.) Provision of new buildings: 1. Mining and Metallurgy. Geology.
- B. Provision of funds for maintenance of equipment and purchase new.
- C. Provision of staff to carry on undergraduate and graduate teaching.
- D. Open fellowships or scholarships to attract able students from elsewhere.

Budget

Dr. J. B. Phillips, Chemical Engineering, is expected to be appointed next year.
p.38.

Conclusion.

The committee as a whole or a smaller group might consider some of the general ~~xxxxxxxxxxxx~~ questions in more detail when funds are available or might formulate desirable schemes on which an appeal for funds might be based.

The report is signed by Brown only, not by the members of the committee.

The future prestige of the Faculty in the view of the late Dean MacKay was bound up with graduate work, and for this we urgently need not one but several research professors and a system of scholarships.

Peters.

Almost forty per cent. of the graduates in applied science from McGill University are at present located in Montreal and district, according to a report of a recent examination of the lists of over two thousand graduates whose addresses are known. ~~xxxxxxx~~ An impression that has existed that large numbers of McGill graduates were lost to this country because of better opportunities elsewhere ^{was} ~~xxxx~~ not supported by facts, as it was found that the figures on incomes of graduates of five, ten, fifteen and twenty years' standing were almost the same in Canada and the United States.

In regard to the numbers of graduates to be found elsewhere, the examination indicated that 10.7 per cent. now reside in the United States. In ~~xxx~~ Canada, nearly 40 per cent. reside in and about Montreal. Next in order and classified by districts under the name of the principal city of each district are the following: Ottawa, 8.7 per cent; Toronto, 5.6 per cent; Sherbrooke, 2.1 per cent; Halifax and Prince Edward Island, 2.1 per cent; Winnipeg, 1.8 per cent; with smaller percentages scattered over a dozen other districts.

McGill graduates in applied science are also listed in Great Britain, European countries, Africa, Mexico, Panama, South America, China and Australia, representing in some cases those who have returned home after studying ~~xxxxxx~~ here, and in other cases

those whose professional work has taken them abroad.

Many of these graduates now occupy high positions covering a wide field of activity. Throughout the Dominion, in Government service, in the executive and operating departments of the largest public utilities and manufacturing and construction industries, in mining and smelting, on the research staffs of the National Research Council and of industrial concerns, and on the teaching staffs of the universities, McGill graduates occupy leading positions and touch the national life of the Dominion at many points.

McGill's faculty of applied science, now known as the faculty of engineering, can justly claim that its graduates are playing an important part in the development of the resources of the Dominion.

Peters.

Behind the scenes in the Engineering Building at McGill University goes on a large amount of laboratory and research work which seldom becomes known to the general public. Large companies, government branches and public enterprises, however, feel the ~~benefits~~ benefits of the collaboration of the McGill staff and the opportunities made available in the McGill laboratories. This work continues without cessation in the inner sanctums of the Engineering Building.

The Department of Civil Engineering and Applied Mechanics plays an important part in this work, with three laboratories under its immediate administration -- the hydraulic laboratory, the highways laboratory and the strength of materials laboratory.

In the past few years the hydraulic laboratory has been greatly enlarged and new equipment has been added, including an experimental turbine with interchangeable runners of the latest types, centrifugal pumps, an experimental pipe line and other improvements. It is now possible to provide for graduate research investigations where flows of water not greater than 10 cubic foot seconds are ~~required~~ required; this flow is obtained by recirculating the water through the university pumps.

The university staff has been greatly aided

It has been the policy of this department to encourage its members to make commercial and technical contacts by engaging in engineering work as opportunity offers, and by serving as members of various technical committees associated with professional work. It is found that it develops in the younger members of the staff a self-confidence which is a valuable asset and enhances the effectiveness of their teaching. It also sets a good example to the students, besides keeping the members of the university staff in constant touch with the public and the profession.

Recent statistics in reference to the number of students in this department of civil engineering and applied mechanics shows that after a marked decline in enrolment from 1923-1929, the figures are rising again to a point up to the high level achieved in the few years immediately following the war.

The Faculty of Engineering has taken every possible step to keep up to the requirements of industry.

1. With the help of the Montreal Light, Heat and Power Cons., the Shawinigan Water and Power Company and the Bell Telephone Company of Canada, a new wing was added to the Macdonald Engineering Building. Much saving was ensured by the use of old foundations.
2. The space thus freed was used to fit up a hydraulic laboratory. We had been much handicapped previously by limitation of space for this equipment.
3. Basement space has been utilised for the provision of a new Highway Engineering Laboratory.
4. In the new Electrical Wing provision has been made for instruction in Communication Engineering, and other equipment has been supplemented.
5. A new gas and petroleum engine laboratory has been fitted up. We now have good examples of apparatus producing steam, oil, and water power.
6. The mining engineering laboratory has been completely rearranged.
7. A number of changes have been made in the curriculum. I might note the addition of courses in Communication Engineering, Engineering Problems, Report Writing and Public Speaking, while the course in Chemical Engineering is being thoroughly revised. An option has been established leading to aeronautical engineering.

I should like to lay special emphasis on the economy practised in the provision or reconditioning of all these new laboratories, the work was almost entirely designed and carried out by our own staff, and well within all their estimates.

8. The principal needs of the Faculty of Engineering are at present:-

a. Facilities for graduate work. Several professors are required who can devote most of their time to advanced work, together with a system of scholarship for promising students.

b. A new building for the departments of Mining, Metallurgy and Geology. c. Funds for maintenance of existing equipment and the purchase of new.

d. Adequate staff to deal with new and important phases of engineering work.

MCGILL UNIVERSITY
MONTREAL

FACULTY OF APPLIED SCIENCE
OFFICE OF THE DEAN

November 27th, 1930.

Sir Arthur Currie, G.C.M.G., K.C.B., LL.D.,
Principal.

Dear Sir Arthur:-

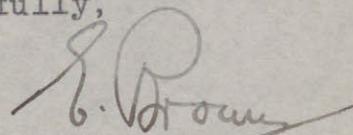
I enclose a summary of the discussion and findings of the Committee appointed at the last meeting of Faculty to consider the question of change of name of the Faculty.

In recommending the change of name for approval, we did not prepare any formal motion. The meeting on Tuesday next has been called specially to consider this question and there may be considerable discussion, although I think, on the whole, members are favourable to the change. If the Faculty adopts this report, a formal resolution could be submitted expressing our desire for the change.

I have consulted Professor Corbett in regard to procedure, should the change be approved. It will involve notice of motion in general terms at the meeting of Corporation on Wednesday, December 3rd, followed at the next meeting of Corporation by the submission of formal resolutions giving effect to the changes involved.

The Committee consisted of Professors McKergow, Christie, McBride and myself.

Yours faithfully,



Chairman of the Faculty.

Encl.

- (5) that the holding of a degree in an approved university or school of engineering is recognized in the qualifications of those legally entitled to practice the profession;
- (6) that the Faculty of Applied Science in recognition of these facts and with a desire to avoid confusion with the B.Sc. course in the Faculty of Arts, has already approved the institution of the Degree of "Bachelor of Engineering";
- (7) that a rational outcome of the above conditions would be the establishment of a distinctively professional faculty to be called "The Faculty of Engineering";
- (8) that the recent division of the Faculty of Arts into Arts and Science groups will tend to cause more confusion than heretofore between the B.Sc. course in Applied Science, and the B.Sc. course in Arts;
- (9) that while the name "Faculty of Applied Science" is of long standing and favourably known, existing conditions make a change of name desirable.

Your Committee therefore recommends that the Faculty of Applied Science approve a proposal to change the name of the Faculty to "Faculty of Engineering".

Should this proposal be adopted, it would have to be presented to Corporation for approval, after notice of motion of the proposed change has been given at a regular meeting of Corporation. The notice of motion for approval would also include the proposal already approved by Faculty to institute the Degree of Bachelor of Engineering.

McGILL UNIVERSITY,
FACULTY OF APPLIED SCIENCE.

Report of Committee on Change of Name of Faculty.

Your Committee met on Friday, November 21st. The report of the Committee on Bachelor Degrees in Engineering presented to the Faculty for first consideration at the meeting held on January 20th, 1930 and again at the meeting held on March 3rd, 1930, was read. At the meeting on March 3rd, the following resolution was carried.

"That in the opinion of this Faculty, it is desirable that the degree of Bachelor of Engineering should be substituted for the degree of Bachelor of Science presently granted, and that this Faculty recommends to Corporation such change, to be first effective with the class of 1931.

Further that the procedure to be followed in effecting this change be left to the Dean."

In the discussion regarding the advisability of adopting the name "Faculty of Engineering" instead of "Faculty of Applied Science", the following points were emphasised:-

- (1) that engineering is a profession in the same sense as law, medicine, dentistry, etc.;
- (2) that in recognition of this fact, the practice of the profession is regulated by law in various provinces of the Dominion;
- (3) that the influence and prestige of technical engineering societies and institutions, comprising the members of the engineering profession, have increased greatly during recent years;
- (4) that the part played by the engineering profession in national affairs and in the everyday life of the community justifies the recognition which is being accorded to an increasing degree.

Faculty should likewise recommend the institution of the degree of Master of Engineering. This change would have to be approved by the Faculty of Graduate Studies, and subsequently by Corporation.

November 27th, 1930.

GEORGE C. McINTYRE

Licentiate Accountant

AUDITS AND INVESTIGATIONS

1761 STAR BUILDING, 80 KING STREET W., TORONTO.

Oct 8/31

General Sir Arthur Currie

McGill University

Montreal. Que

Dear Sir,

Many thanks for your very satisfactory reply to my enquiry re Canadian Engineers. In explanation of my enquiry I may say that I am interested in the Warlike Sons of Canada movement, and it is our intention to make a protest regarding the employment of foreign engineers when there are suitable Canadians to fill any engagements. We also intend, that should any such future appointments be proposed, to make a strong protest to the government against them.

Yours sincerely

George C. McIntyre

MCGILL UNIVERSITY
MONTREAL

FACULTY OF ENGINEERING
OFFICE OF THE DEAN

October 3rd, 1931.

Sir Arthur Currie, G.C.M.G., K.C.B., LL.D.,
Principal.

Dear Sir Arthur,

I am returning the letter written to you by George C. McIntyre with reference to the engagement of Sir Alexander Gibb to report on the general problem of Canadian harbours. He asks whether there are available graduates of McGill University or of any other Canadian University equally capable of doing this work. I do not know the precise terms of reference in regard to this inquiry.

There are many engineers in Canada with considerable experience in harbour work, both from the point of view of construction and development. I might mention J.J. Macdonald, a graduate of our Faculty, who was designing engineer in connection with the Halifax harbour many years ago. He has recently been engaged on the reconstruction of the wharves destroyed by fire at St. John during the past summer. I do not know to what extent he has studied the general question of economics of harbour administration, and it may well be that Sir Alexander Gibb has been asked to report on this phase of the problem.

Then again, one might mention engineers such as Mr. F. W. Cowie, former Chief Engineer of the Montreal Harbour Board, and Mr. Swan, an engineer from the old country who came out to Canada many years ago and has been identified with harbour development work, notably at Vancouver. Mr. Swan is not a McGill graduate.

In addition, McGill graduates are serving in the Department of Public Works, and in this way have been brought into contact with harbour construction and harbour problems. Mr. D.W. McLachlan is a graduate in Civil Engineering who served as Chairman of the Canadian Section of the St. Lawrence Waterways Board. Previous to that he was identified with the harbour works on the Hudson Bay, and I believe is still connected with this work.

Sir Arthur Currie.

#2.

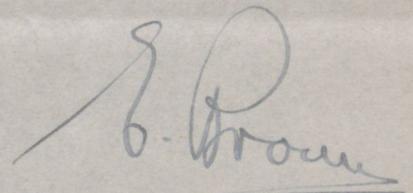
It is possible that Sir Alexander Gibb has been called in to report on work with which the above-mentioned engineers have been directly connected, and while I know nothing of the reasons which governed his selection, it is possible that the desire to obtain an impartial report may not have been entirely absent from the mind of Mr. Bennett.

Messrs. Coverdale and Colpitts of New York have been prominently identified with inquiries into the operation of large public utilities during recent years and have dealt with the rehabilitation of railroads and many other industrial schemes of great magnitude. I believe that this firm would be capable of analysing the data concerning the operation of our harbours. Mr. Colpitts, one of the members of this firm, is a graduate of our Faculty.

I need not mention more names, but I think you will gather that in my opinion we have engineers of great ability in connection with harbour work, both from the point of view of design, construction and general economics. Whether any of these engineers, either singly or in combination, might have been engaged instead of Sir Alexander Gibb remains an open question. I cannot express an opinion because I do not know the terms of reference. It is obvious that some of these men might be considered as interested parties.

I am returning Mr. McIntyre's letter herewith.

Yours faithfully,

A handwritten signature in dark ink, appearing to read 'J. Brown', written in a cursive style. The signature is positioned above a horizontal line.

Dean.

GEORGE C. McINTYRE
 Licentiate Accountant
 AUDITS AND INVESTIGATIONS

1701 STAR BUILDING, 80 KING STREET W., TORONTO,

Sept 24[#]/31

Sir Arthur Currie

Dear Sir,

No doubt you have read recently a statement made by Sir Alexander Gibb to Canadian newspapers that Mr Bennett asked him to come to Canada and look over some of its harbors.

Apropos of this statement would you be kind to let me know if there available any graduates of McGill University who would be equally capable of doing this job, or if you know of any graduates of any Canadian University who could undertake to prepare such a report?

Your reply will be very greatly appreciated

Yours sincerely,

George C. McIntyre

W. W. Brown

Can you think of any graduates capable of doing this job?

W. W. Brown

7/6/9/31

October 5, 1931.

George C. McIntyre, Esq.,
1701 Star Building,
80 King Street W.,
Toronto, Ontario.

Dear Sir,

Let me thank you for your letter of the 24th September in regard to the work to be done in Canada by Sir Alexander Gibb.

I asked the Dean of our Engineering Faculty what he would say in reply to your enquiry, and I am enclosing a copy of his report.

Ever yours faithfully,

Principal.

McGill University

FACULTY OF APPLIED SCIENCE

January 15th, 1931.

MEMORANDUM

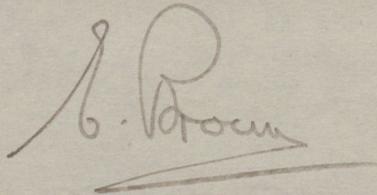
TO Professor Carleton Stanley,
Assistant to the Principal. FROM Professor E. Brown.
Chairman of the Faculty.

Dear Professor Stanley,

I am returning the letter from Mr. Pilcher of the Manchester Corporation Transport Department regarding instruction in McGill University in transport problems.

I have attached a copy of my reply.

Yours faithfully



E. Brown



R. STUART PILCHER.
F. R. S. E., M. INST. T.
GENERAL MANAGER.

TELEPHONE NO 7800 CITY.
TELEGRAMS: TRAMWAYS, MANCHESTER.

All communications to be addressed to the General Manager.

Manchester Corporation Transport Department.

General Offices: 55, Piccadilly.

Manchester.

To Professor Brown:
Will you please answer
this for the Principal?

C.W.S.

2nd January, 1931.

Dear Sir, January 13, 1931.

I am endeavouring to interest the University authorities of Great Britain in the question of Technical Education in regard to transport. I should be glad to know if in the University of McGill there are any special facilities for the study of transport, or whether the question is merely one of the subjects dealt with under economics.

I should be pleased to learn whether in the future there is any possibility of transport being treated as a special subject by the creation of a lectureship or a Chair of Transport.

There is a growing feeling amongst transport officials in Great Britain that the scope and importance of transport is increasing so rapidly that specialists in transport will be required in the future.

The Municipal Tramways and Transport Association hold annually competitions for essays on transport problems with suitable awards; also the Institute of Transport have examinations for membership of the Institute.

I should be indebted to you for any information you could let me have on this subject.

Yours faithfully,

President - Municipal Tramways
and Transport Association.

*noted
auto*

The Principal,
McGill University,
Montreal.

RSP/MB.

COPY.

January 15th, 1931.

R. Stuart Pilcher, Esq.,
President, Municipal Tramways & Transport Association,
Manchester Corporation Transport Department,
55, Piccadilly, Manchester.
E n g l a n d.

Dear Sir:-

Your letter dated January 2nd to the
Principal has been referred to me for answer.

At present we have no course in McGill
University dealing specially with questions of transport.
Some years ago there was a special department known as the
Department of Railways functioning in the Faculty of Applied
Science as a unit, similar to other units such as Civil,
Electrical and Mechanical Engineering. The department existed
for several years, but the course was abandoned during the War.
It was financed partly by the aid of the Canadian railways, but
our general feeling was that the demand for such a specialized
course did not fully justify its existence.

Students taking this course spent a
considerable amount of time in the Departments of Civil and
Mechanical Engineering. As a rule there were two full-time
professors in the University both of whom were experts in
railway work. In addition, lecturers and instructors who were
at the time employed by the railway companies, gave courses
dealing with special phases of railway organization. Lectures
were also given by members of the University staff in economics,
engineering law and English.

I think you will obtain a good idea of
the course by looking through the extracts from an old calendar
which I enclose. These include the following:-

- Pages 191-194 - General outline of Engineering courses.
(Note: All students of the Faculty followed the same course
in the first and second years.)
- Pages 218-220 - Details of the third and fourth year courses
in Railway Engineering.
- " 276-281, and 248-249 - Further details of the organiza-
tion of the Department, and list of subjects
covered.

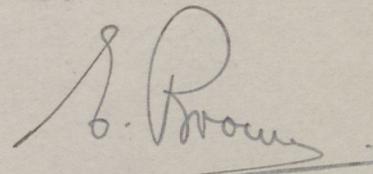
R. Stuart Pilcher, Esq.

2.

I think it is safe to say that the general feeling after the experiment with this course, was that insofar as it was differentiated from the work of the closely allied Departments of Civil and Mechanical Engineering, the subjects dealt with could best be studied in actual railway practice. In other words, an Engineering graduate with a sound knowledge of Civil and Mechanical Engineering is well equipped to enter the service of the railway companies. It is possible that the course was ahead of its time, but at the moment I do not think it likely that the experiment will be renewed. Our problem of transport is being linked up more and more with that of aviation, and it would seem to be more probable that a course in aviation will be developed rather than that anything along previous lines will be re-established.

If I can give you any further information I shall be glad to do so.

Yours faithfully,

A handwritten signature in cursive script, appearing to read "S. Brown". The signature is written in dark ink and is positioned above a horizontal line.

Chairman of the Faculty.

27th February, 1930.

H. H. Dansereau, Esq., Secretary,
Metropolitan Planning Board of Montreal,
Public Works Department, City Hall,
Montreal, P. Q.

Dear Mr. Dansereau,

Replying to your letter of the
20th February, I have pleasure in nominating
Professor R. DeL. French as the representative
of McGill University on the Metropolitan Planning
Board.

Yours faithfully,

Principal.

McGILL UNIVERSITY
MONTREAL

FACULTY OF APPLIED SCIENCE
OFFICE OF THE DEAN

February 26th, 1930.

Sir Arthur Currie, G.C.M.G., K.C.B., LL.D.,
Principal.

Dear Sir Arthur:-

Referring to the attached letter from Mr. Dansereau regarding University representation on the Metropolitan Planning Board, I suggest that Professor R. DeL. French be nominated as representative of McGill University.

Mr. French has been active on the work of the Board for some time, as the representative of the Engineering Institute of Canada, but I understand that his term in that capacity has expired, or is about to expire. Inasmuch as most of the engineers at present on the Board are representatives of particular interests, it seems to me rather desirable that the University representative should also be an engineer thoroughly conversant with traffic and other municipal problems.

Yours faithfully,

J. M. Mackay
Dean.

Encl.

CITY OF MONTREAL

PUBLIC WORKS DEPARTMENT

CITY HALL

MONTREAL, February 20th., 1930

(No.)



H. A. TERREAU
CHIEF ENGINEER
DIRECTOR

Sir Arthur Currie,
Vice-Chancellor & Principal,
McGill University,
Montreal.

Dear Sir:-

A Nominating Committee of the Metropolitan Planning Board of Montreal of which Dr. W. D. Lighthall, K.C., is Chairman, was named by the Board to recommend names to add to the roll of public bodies now represented on the Board to assist in its work for a sound development of the City.

The Committee has made its report and I have been instructed to address you to kindly indicate your nominee for a place on the Metropolitan Planning Board from which the respective working sections will be named,

The duties will not be onerous, but as the issues confronting Montreal for the next five years will be so great, it is felt that all responsible public bodies should have representation.

Will you kindly advise and oblige,

Yours very truly,

Secretary,
Metropolitan Planning Board of Montreal.

To Dean H. M. MacKay.
What do you advise?

Feb. 22, 1930.

LA COMMISSION D'URBANISME DU DISTRICT METROPOLITAEN DE MONTREAL
 THE METROPOLITAN PLANNING BOARD OF MONTREAL

Liste des Membres

List of Members

Terreault, H.A. Président - Chairman	Directeur des Travaux Publics de la Cité Director of Public Works.
Beaubien, Joseph	Maire, Cité d'Outremont.
Blair, D.E.	General Superintendent, Montreal Tramways Company.
Cunningham, H.A.	Efficiency Engineer, Canadian Pacific Railway Company.
Duperron, A.	Ingénieur en Chef, Commission des Tramways.
Dupuis Armand,	Secr. Trés. Dupuis Frères Ltée. Repr. Ligue du Progrès Economique.
Ferguson, Alex.	Asst. Gen. Manager, Harbour Commissioners of Montreal.
French, Prof. R. de L.	McGill University, Repr. Engineering Institute of Canada.
Allen, S.	Bureau of Economics, Canadian National Railways.
Henry, H.A.C.	Deputy-Minister of Railroads.
Hutcheson, Col. J.E.	Vice-President & Genral Manager, Montreal Tramways Company.
Lawson, Harold,	Architect,
Lighthall, Dr. H.D., K.C.,	Advocate, Repr. City Improvement League.
MacLeod, Geo. H.	Asst. Chief Engineer of the City.
Quinn, Ed.	Manager, Can. Cartage & Storage Co. Repr. Vehicular Traffic Assn. and others.
Seurot, Paul	Ingénieur du Transport Rapide, Compagnie des Tramways de Montréal..
Simpson, Frank H.	Engineer of Fundamental Plans, Bell Telephone Co. of Canada.
Thornley, K.B.	Asst. Genral Manager, Montreal Tramways Company.
Beaudouin, Oscar	Ingénieur, Pointe-Claire.
Béique, Paul	Ingénieur, Ville LaSalle.
Cohier, Ernest	Ingénieur, Ville Saint-Laurent.
Hadley, H.	Engineer, Town of Verdun.
Jarman, P.E.	Engineer, City of Westmount.
Laberge, F.C.	Ingénieur.
Lacroix, Gaile	Ingénieur-Administrateur, Outremont.

Lafraiboise, A.	Ingénieur, Ville de Lachine.
Langelier, J.. Nap.	Ingénieur-Surintendant, Montréal-Est et Pointe-aux-Trembles.
Schlemm, L. E.	Engineer, Town of Hampstead.
Dansereau, H.. H.	Secrétaire.

RECEIVED BY THE CO

THE NATIONAL UNION BANK

December 23rd, 1926.

Messrs. Grosby Lockwood and Son,
7, Stationers' Hall Court,
London, E.C.4.

Dear Sirs:-

I have much pleasure in
acknowledging receipt of the copy of Mr. George
Higgins' "Centrifugal Pumps", which you so kindly
sent me.

I am passing this book on to
our Faculty of Applied Science for an opinion as
to its usefulness.

Yours faithfully,

Principal.

McGILL UNIVERSITY
MONTREAL

FACULTY OF APPLIED SCIENCE,
OFFICE OF THE DEAN

December 6th.1926.

Sir Arthur Currie, G.C.M.G., K.C.B., LL.D.,
Principal.

Dear Sir Arthur,

I am enclosing herewith a copy of the agenda for the meeting of the Faculty of Applied Science this afternoon.

I am also taking this opportunity of sending you an analysis of the replies to some of the more interesting questions in the questionnaire sent out to our graduates some time ago.

Trusting that these will be of interest,

I remain,

Yours faithfully,

H. M. MacKay

Dean.

E.

A G E N D A

1. Minutes of meeting of November 1st.
2. Business arising out of minutes
 - (a) Case of W. H. Abbott
 - (b) Codification of Regulations of Faculty.
3. Candidate for degree of B.Sc. - A. W. Moore.
4. Baylis Bursary, recommendation for award.
5. Report of Committee on fourth year supplemental pass standard.
6. Report of Time Table Committee re first term examinations.
7. Report of Committee re honorary degree of Doctor of Engineering.
8. Other Business.

Dec. 6th. 1926.

Analysis of Replies to certain questions from the questionnaire submitted to Graduates in Applied Science in 1925. This questionnaire was sent to all graduates up to and including the class of 1921.

Question 5:- "If you have followed engineering as a major vocation since you graduated from college, or if your work has been such that a course in engineering may reasonably be considered as the proper preparation for it, please indicate to what extent you believe your college course gave you the proper scientific and technical foundation for your work."

SUMMARY OF REPLIES.

Departments	Chem. Eng.	Civil	Elect.	Mech.	Mining	All	S.P.E.E.
Number of Replies	35 25	121 93	71 45	75 43	61 37	363 243	1789
	%	%	%	%	%	%	%
Little or none	0.0 0.0	1.6 0.0	0.0 0.0	0.0 0.0	1.6 2.7	0.8 0.4	1.1
Poor, not what it should have been.	2.9 4.0	0.8 0.0	2.8 2.2	4.0 4.7	1.6 2.7	2.2 2.1	2.2
Reasonably good	20.0 16.0	17.4 14.0	33.8 35.6	25.3 30.2	18.0 34.3	22.6 22.6	20.1
Good	48.5 56.0	38.8 40.9	38.0 33.4	42.7 37.2	49.2 43.3	42.1 40.7	42.7
Excellent	28.6 24.0	41.4 45.1	25.4 28.8	28.0 27.9	29.6 27.0	32.3 34.2	33.9

*For explanation of duplicate figures
See page 2.*

The upper of each pair of figures in these tables refers to Graduates up to and including 1921; the lower to graduates in the fifteen years 1907-21 inclusive. The last column summarizes the replies received from all engineering schools in America by the S.P.E.E.

Question 9:- "Please indicate your judgment as to the quality or sufficiency of relationship between the engineering subjects which you studied in college and the problems and procedures of engineering practice."

SUMMARY OF REPLIES

Departments	Chem. Eng.	Civil	Elect.	Mech.	Mining	All	S.P.E.E.
Number of Replies	26 21	119 92	70 43	70 45	53 30	338 233	1778
	%	%	%	%	%	%	%
Conspicuously poor	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.8
Poor, not what it should have been.	19.2 14.3	3.4 0.9	5.7 4.6	15.7 13.3	5.7 6.3	8.0 6.0	5.6
Passable	26.9 33.3	20.2 18.5	27.2 18.6	22.8 24.4	28.3 31.2	24.0 22.8	22.3
Good	50.0 42.9	60.5 62.0	57.1 65.2	52.9 46.7	49.0 50.0	55.6 56.2	55.9
Excellent	3.9 9.5	15.9 18.5	10.0 11.6	8.6 15.6	17.0 12.5	12.4 15.0	15.4

Question 10:- "Please indicate your judgment on the standards of work done and of graduates produced by the engineering colleges as fixed by the requirements of engineering practice."

SUMMARY OF REPLIES.

Departments	Chem. Eng.	Civil	Elect.	Meeh.	Mining	All	S.P.E.E.
Number of Replies	27 20	109 87	64 39	73 43	51 30	324 219	1776
	%	%	%	%	%	%	%
Conspicuously poor.	0.0 0.0	0.0 0.0	0.0 0.0	1.4 2.3	0.0 0.0	0.3 0.5	0.3
Poor, not what they should be	18.5 20.0	1.8 1.1	4.7 5.1	4.1 2.3	5.9 10.0	4.9 5.0	5.2
Passable.	18.5 20.0	19.2 19.5	36.0 33.0	26.1 25.6	23.6 30.0	24.7 24.6	27.9
Good.	55.5 45.0	63.4 63.3	46.8 46.2	61.6 65.1	60.7 53.3	58.7 57.6	56.4
Excellent.	7.5 15.0	15.6 16.1	12.5 15.4	6.8 4.7	9.8 6.7	11.4 12.3	10.2

A typical answer to question 9 is "from top to bottom according to subject (and professor)."

Typical comments on question 10 are:-

"Assuming college an average one or better depends more on man than on college."

"Depends entirely on the man."

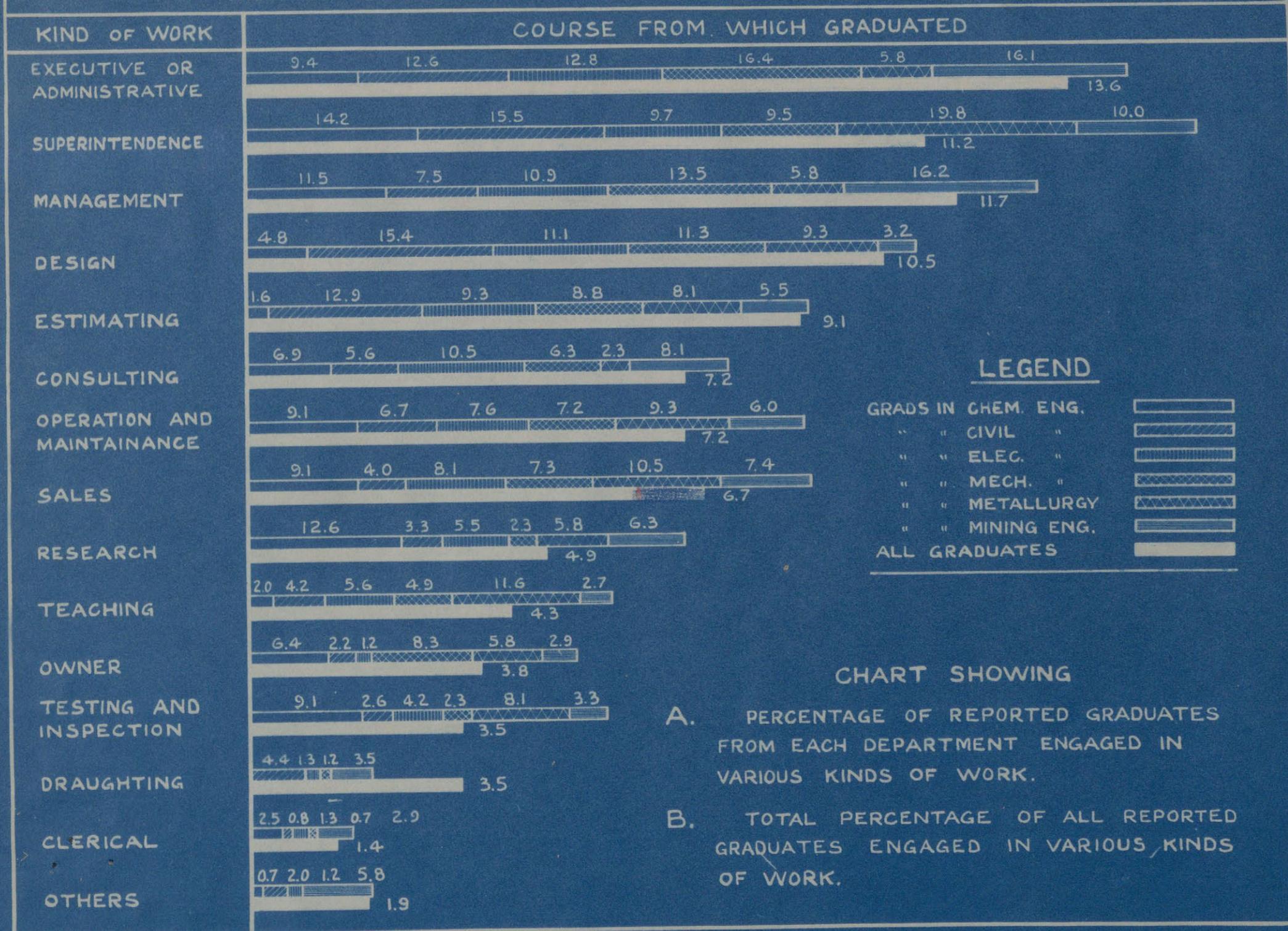
" Good considering material college has to work on."

A prominent Mining Engineer says:-

- - - - "University conspicuously poor - no personality;

- - - University better - more personality. McGill, good."

MCGILL UNIVERSITY — FACULTY OF APPLIED SCIENCE



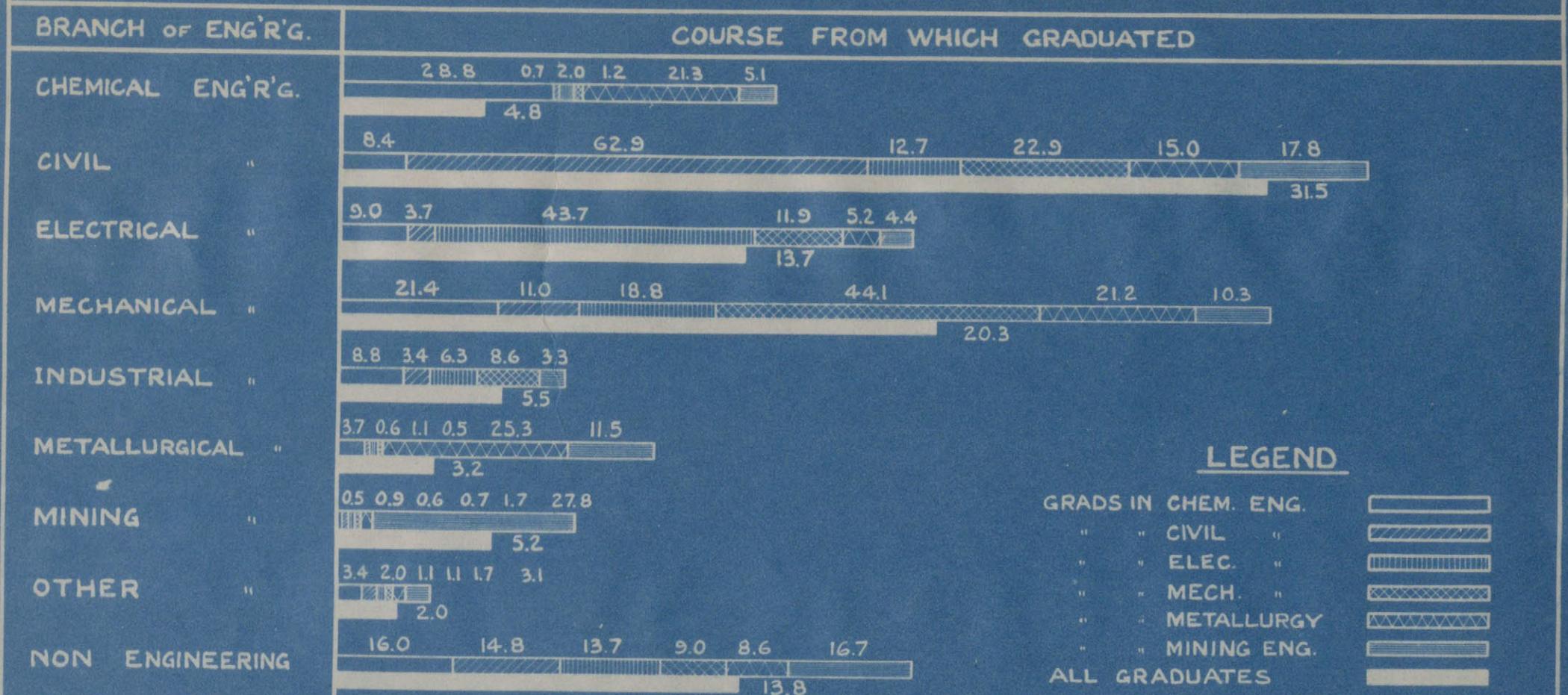
LEGEND

- GRADS IN CHEM. ENG.
- " " CIVIL "
- " " ELEC. "
- " " MECH. "
- " " METALLURGY
- " " MINING ENG.
- ALL GRADUATES

CHART SHOWING

- A. PERCENTAGE OF REPORTED GRADUATES FROM EACH DEPARTMENT ENGAGED IN VARIOUS KINDS OF WORK.
- B. TOTAL PERCENTAGE OF ALL REPORTED GRADUATES ENGAGED IN VARIOUS KINDS OF WORK.

MCGILL UNIVERSITY — FACULTY OF APPLIED SCIENCE



LEGEND

GRADS IN CHEM. ENG.	
" " CIVIL "	
" " ELEC. "	
" " MECH. "	
" " METALLURGY	
" " MINING ENG.	
ALL GRADUATES	

CHART SHOWING

- A. PERCENTAGE OF REPORTED GRADUATES FROM EACH DEPARTMENT ENGAGED IN VARIOUS BRANCHES OF ENGINEERING WORK.
- B. TOTAL PERCENTAGE OF ALL REPORTED GRADUATES ENGAGED IN VARIOUS KINDS OF ENGINEERING WORK.

RULES, REGULATION and PRACTICE.

FACULTY OF APPLIED SCIENCE.

MCGILL UNIVERSITY.

ADVANCED STANDING.

Students may be admitted to advanced standing:

- (a) By special arrangement with the institutions from which they come, e.g. Acadia, Mount Allison, St. Francis Xavier.
- (b) Upon the recommendation of the Committee on Entrance from other Colleges, which considers each case upon its merits.

ADVISERS.

At the opening of each session, each first year student is assigned a Faculty adviser by the Dean. Each adviser is notified of the students assigned to him; he is also notified in the event that warnings for low standing are sent to any of his advisees.

(Dec.17,1913.)

ATTENDANCE.

1. The following are the standard attendance rules in the University:-

- (a) Lectures begin at five minutes past the hour and end at five minutes before the hour.
- (b) Students may not enter a lecture late, except with the permission of the lecturer. If permitted to enter, they will be marked as late. Two "lates" are equivalent to one absence.
- (c) Credit for attendance may be refused on the ground of lateness, inattention, disorderly conduct or neglect of study.
- (d) Students must attend at least seven-eighths of the exercises in each course, unless excused. Excuses may be granted by the Dean for illness, domestic affliction, and other important reasons.
- (e) Students must obtain excuses immediately upon their return to the University after absence, and present the same at once to instructors from whose classes they have been absent, in order that such absences shall not be counted against them.
- (f) Requests for excuses must be supported by medical certificate, or such other documents as may be necessary.
- (g) The issuance of an excuse to a student does not entitle him to credit for exercises which he may have missed.
- (h) Students whose unexcused absences exceed one-eighth, but not one-quarter, of the total scheduled exercises in any course, are considered as having failed in that course.
- (i) Students whose unexcused absences exceed one-quarter of the total scheduled exercises in any course, are required to repeat the whole course.

ATTENDANCE
(Continued.)

2. The Faculty, acting under the authority of Corporation, has power to modify the seven-eighths attendance rule, and notice of modification is posted on the bulletin board of the Faculty at the opening of each session. The following modifications of the seven-eighths rule are at present in force. In all other particulars the standard rules are in effect:-

- (a) The standard attendance regulations shall apply without modification throughout the first year.
- (b) The standard attendance regulations shall apply to students of the second year without modification throughout the first term. At the end of the first term, the regulations may be modified in some cases, after consideration of the standing of students.
- (c) All students of the third, fourth and fifth year courses, unless otherwise ordered by the Faculty, shall be exempted from the seven-eighths attendance rule insofar only as lectures are concerned, but this exemption shall not apply to lecture periods when duly scheduled class examinations are held.
- (d) Records of attendance of students in all years, and in all subjects of the courses, shall be kept as heretofore, and certificates of absence owing to illness, domestic affliction, etc., must be submitted to the Dean in accordance with the standard attendance regulations.
- (e) The exemptions granted under the above rules may be modified or withdrawn at any time, at the discretion of the Faculty. (Oct. 11, 1926.)

3. Students may attend only the classes for which they have registered, and to which they have been assigned.

CALENDAR.

1. The Faculty appoints a committee each session to revise that portion of the University Calendar referring to this Faculty, and the Faculty Announcement. This work is done in consultation with the Departments concerned, and the completed text is then forwarded to the University Registrar's office.

CLASS EXAMINATIONS.

1. Class examinations are held at the end of October, the end of November and the end of the first term in the most important subjects in the first and second years. Returns of these examinations are made to the Dean. The instructors concerned are asked for these returns some days before they are required.

2. Marking of class examinations is subject to the following rules:-

(a) When written notice of the dates of class examinations has been posted not less than one week in advance, a student failing to attend shall be marked zero, but shall have this replaced by "average" marks if he present an excuse within a reasonable period, provided, however, that if the student present an excuse acceptable to the head of the Department, he may be marked exempt and be given average marks even if this excuse does not come within the category of absence excuses acceptable to the Faculty. Such departmental action shall not relieve the student from being marked absent in the quarterly report to the Dean.

(b) When written notice has not been given as under (a), an absent student shall not be marked zero, but shall be given average marks.

3. Instructors may, if they desire, assign not more than 40% of the total marks in any course to the class examinations in that course. (Nov.1,1909.) This procedure is also common in connection with laboratory and drafting-room courses, although it does not seem to be expressly authorized by the Faculty.

4. Warnings to students for low standing, and recommendations for supplementary instruction in the Douglas Tutorial Classes, are based on the returns from class examinations.

DEGREES.

1. Candidates for degrees in engineering, beginning with the class of 1929, must meet the requirements of the Faculty as to experience in practical engineering work. (See "Employment".)

2. Degrees are granted at the May convocation, as follows:-

- (a) To candidates who pass in all the subjects of their courses.
- (b) To candidates who fail in one subject rated at 100 marks, or who fail in two subjects rated at 50 marks each, only if the total marks obtained in the subjects passed amount to 50% of the highest possible marks which might have been obtained in all the subjects of the course, no credit being given for any marks obtained in subjects not passed. Failures may be in either third or fourth, or fourth and fifth year subjects. The average of 50% is required for fourth or for fifth year subjects only.
- (c) To candidates who, having failed to obtain degrees at the May convocation, have fulfilled later the requirements of the Faculty. (See "Standing, Promotion and Eligibility".) Such students may graduate at the convocation in October following their failure, or at a later convocation, dependent upon the extent of their failure.
- (d) Candidates who have failed in subjects the marks assigned to which amount to more than 100, will not be permitted to take degree. (Mar.8,1923.)

3. A meeting of heads of departments recommends candidates to the Faculty for degrees, basing its recommendation on the returns from the sessional examinations and from laboratory or drafting room work.

DISCIPLINE.

1. Instructors may require a student guilty of disorderly conduct, neglect of study, etc., to leave their classes. Persistence in such offences shall, after admonition by the instructor, be reported to the Dean, who may -at his discretion- reprimand the offender or refer the matter to the Faculty at its next meeting, and, in the interval, suspend the offender from classes.

EMPLOYMENT.

1. Every engineering student must, before he receives his degree, have had at least six to eight months experience in practical engineering work, satisfactory to the Faculty. This requirement applies to the class of 1929, et seq. (Mar. 10, 1925.)

2. The Faculty maintains a standing committee to assist students entering the second, third, fourth and fifth years to find summer employment, and to assist graduating students to find permanent employment. Its activities are limited to advising students and prospective employers, and establishing contact between the two.

3. Early in the second term of each session this committee prepares a bulletin, with the assistance of the various Departments, for circulation among possible employers.

EXEMPTIONS.

1. Exemptions may be granted as follows to students repeating their year:-

(a) In subjects in which regular sessional examinations are held, provided first-class standing was obtained.

(b) In subjects such as laboratory or drafting room work, provided high second-class standing was obtained.

(Oct. 5, 1921.)

FACULTY MEETINGS.

i. 1. Regular meetings of the Faculty are held on the first Monday of each month during the session. Special meetings are held when necessary. All members of the Faculty are notified of meetings.

INVIGILATION.

1. Junior members of the staff are required to act as invigilators at the sessional and supplemental examinations.

2. Remuneration at the rate of \$5.00 per examination period for chief invigilators and \$3.00 for assistant invigilators, is made by the University Bursar at the request of the Examination Committee. When an invigilator serves alone, he is classed as chief invigilator when there are 30 or more candidates; when there are fewer than this number he receives remuneration as assistant invigilator.

NOTICES TO STUDENTS.

1. General Faculty notices to students are posted on the bulletin boards of the Faculty.
2. Notices of failures, circulars regarding summer reading and summer essays, and a circular of general information regarding the coming session are sent by mail to all students in June of each year. Failure to receive such notices does not relieve students of any responsibility.
3. Special notices are sent by mail to students who have failed in their final year, and to others who may have to comply with special conditions.

PRIZES and HONOURS.

1. The Science Undergraduate Society's prizes for summer essays are awarded each year by a special committee of the Faculty. Each Department is expected to submit the best essays written by its students for consideration by this committee.

2. Other prizes are awarded by the Faculty, upon the recommendation of its Committee, after consultation with the heads of the Departments concerned.

3. Students who have been exempted in certain subjects shall be eligible for exhibitions and prizes which are given for standing in the complete curriculum of the year, their standing being calculated on the basis set forth (see "Standing," etc.) In the case, however, of prizes or exhibitions given for individual subjects, or groups of subjects, in one or more of which the student has been exempted, he must take the regular examination or examinations in all subjects, to be eligible for these prizes. (Mar. 5, 1917.)

4. Honours are awarded to students making an average of at least 80% in the principal subjects of their courses in the fourth year. (May 22, 1923.)

RE-EXAMINATION OF PAPERS.

1. Any student who believes that an error has been made in the marks assigned to an examination paper which he has written at a sessional examination, may have his paper re-read by the head of the Department on making written application to the Dean within thirty days after the date on which the results of the examination were posted. With this application he must enclose a Bursar's receipt for \$2.50. This fee will be returned to the student if the paper proves to have been incorrectly marked, but if not, it will be forfeited to the University. (Dec. 5, 1921.)

REGISTRATION.

1. Students entering the Faculty for the first time, whether freshmen or those admitted to advanced standing, register at the office of the University Registrar, on a fixed date each year.
2. Other students, not having prerequisite conditions, may also register at the University Registrar's office between fixed dates each year.
3. Students not registered as above must register in the Engineering Building, on fixed dates each year. Students included in (2) may register at this time and place, instead of at the University Registrar's office, if they desire.
4. Late registration is permitted, up to a fixed date, on payment of a fee of \$5.00 or \$10.00, depending upon the degree of lateness.
5. Changes in registration are not permitted after a fixed date each year.
6. The "fixed dates" referred to in (1) to (5) are set each year, and depend upon the date of the opening of the University session. They are published in the University Calendar and the Faculty Announcement.
7. In October of each year, instructors are requested to advise the University Registrar of any irregularities in their class lists. These are dealt with by the Registrar in conference with the Department concerned.
8. The registration of students ordered to attend supplemental schools is provisional only, until they have successfully completed their work in such schools. If such students fail in the supplemental schools, their registrations are revised in accordance with the prerequisite rules.

(Mar. 3, 1913)

SCHOLARSHIPS and BURSARIES.

1. Where not otherwise provided for, appointments to vacant scholarships are made in October by the Dean on behalf of the Faculty, and upon the recommendation of the Department concerned.

2. Appointments to the Douglas Tutorial Bursaries are made early in each session by a special committee of the Faculty. This committee arranges with the Departments concerned as to the work to be done within these Departments by the appointees.

STANDING, PROMOTION and ELIGIBILITY.

1. The Committee on Registration, Standing and Promotion is charged with the following duties:-

- (a) The preparation of lists of students of the first year, who at the close of the session are either eligible to proceed to the summer schools, or are called upon to repeat the work of the year.
- (b) The preparation of similar lists at the close of the session governing the promotion of students of the second year.
- (c) The checking of the registration cards of all students at the opening of the session, assignments to supplemental schools, and the granting of special supplemental examinations to be held about the middle of October as directed by the Faculty. Such special supplemental examinations are granted in prerequisite subjects only and, in general, to students conditioned in only one prerequisite subject.
- (d) The determination, in consultation with heads of Departments, of the courses to be followed by students who have failed in their final year.
- (e) General oversight of the courses of students in all years, and the preparation of reports to the Faculty recording action taken under the rules, and recommendations in cases requiring special action.

2. The minimum percentages required for the various grades are as follows:-

First class	80%.	
Second class ...	65%.	
Third class	50%.	(Nov.6,1911.)

3. First year students failing in more than three subjects in which standing is determined by sessional examinations, or in three such subjects aggregating over 350 possible marks, are required to repeat their year: for the second year the corresponding standards are failures in more than four such subjects, or in three such subjects aggregating over 400 possible marks.

4. Final year students failing in subjects not aggregating more than about 30% of the total obtainable marks, need not repeat any of the courses, but are allowed to sit for special supplemental examinations in September of each year, or for the regular examinations of another session. (May 26, 1925.)

5. Final year students whose failures aggregate more than the above, must repeat all final year subjects in which they have failed. They may also be called upon to repeat other subjects in which their standing was low. (May 26, 1925.)

6. Students exempted from a certain proportion of their work in any year, shall nevertheless be ranked with other students in that year, on a percentage basis calculated on the subjects which they take. For example, assuming ten subjects in the course, a student exempted in one or more, and averaging 60% in all of the others, would rank equal with another student who averaged 60% in all ten, but when, in the opinion of the Dean, a student, owing to exemptions without corresponding handicaps, pursues a course which is appreciably lighter than that of the average student in his year, he may be ranked as though he had obtained only "pass" marks in the subjects in which he held exemptions: always provided, however, that an exempted student may, if he so desire, come up for examination in exempted subjects at the regular time, and be entitled to whatever marks he obtains. (Mar. 5, 1917.)

*

7. In the case of "optional" course approved by the Faculty for insertion in the calendar, credit may be given for standing obtained in accordance with the ordinary rule based upon lecture hours, but such credit shall in no case raise the minimum number of marks required to pass in any year. (Mar. 5, 1917.)

(* The word "optional" has since acquired another meaning.)

STUDENT RESPONSIBILITY

1. Students are responsible for correct registration in accordance with the prerequisite rules, and must avoid conflicts in time-tables when registering in subjects of more than one year.
2. Students are responsible for the fulfillment of the requirements as regards practical experience prior to graduation.

SUMMER ESSAYS AND SUMMER READING.

1. Summer reading is required of all students entering the second year.

2. A summer essay, or summer reading, is required of all students entering the third year in engineering courses, or entering the fourth or fifth years in architecture.

3. A summer essay is required of all students entering the fourth year in engineering courses.

4. Summer reading required of students entering the second year may be done during their first year, in which case students may offer themselves for examination in May at the close of their first year if they desire. An examination will also be held about October 1st for those who desire to be examined at that time. Examination papers for summer reading are prepared and read by the Department of English, Faculty of Arts.

5. Examinations in summer reading for students other than those entering the second year, are held about October 1st in each year. Examination papers are prepared and read by the Departments within whose jurisdiction the prescribed reading falls.

6. Summer essays are read and graded by the Department in which the writer is registered.

7. A special circular regarding summer reading is issued each year, prescribing the reading for that year.

8. Summer essays of students in engineering courses must be handed in at the Dean's office not later than 5 p.m. of October 10th in each year, except when October 10th falls on a Sunday, when they must be handed in not later than 5 p.m. October 11th. Summer essays of students in architecture must be handed in to the head of that Department, not later than the times specified above.

SUMMER ESSAYS and SUMMER READING.
(Continued.)

9. Failure to submit a summer essay on time is regarded as a failure in that subject. Fourth year students deficient in summer essays, but with no prerequisite conditions, are allowed the option of handing in their essays as special supplementals at the end of the Christmas holidays. Students having the option of summer reading or submitting a summer essay, and failing in the first choice exercised, are, if they exercise the alternative, regarded as making a second attempt. The third attempt of any kind is subject to a \$10.00 fee and a passing standard of sixty per cent. (Oct. 21, 1925.)

SUMMER SCHOOLS.

1. Summer schools are held in May of each year for all students entering the second year. Students entering the third and fourth years, except those in electrical engineering, must also attend summer schools which are held generally in May. Some, however, are held in September, and are attended also by students from other colleges entering the third or fourth years. Students in electrical engineering must fulfill other conditions instead of attending summer schools.

SUPPLEMENTAL EXAMINATIONS.

1. The January term examinations serve as supplemental examinations in the subjects covered.
2. Supplemental and special supplemental examinations for all classes, except the graduating class, are held in April of each year. Applications for these examinations must be filed with the Examination Committee one week in advance.
3. Special supplemental examinations are held in final year subjects in September of each year, for men who failed to receive their degrees in the preceding May. Returns from these examinations must be made on the regular forms to the Dean as promptly as possible.
4. The timetable for the September supplemental examinations is included in the general circular mailed to all students in June.
5. Papers for the September supplemental examinations should be prepared by the instructors concerned and delivered to the University Registrar before they leave the University at the end of the session.
6. Returns from the regular September supplemental examinations must be in the hands of the Dean before the date of registration, as students cannot complete their registration without this information.
7. Special supplemental examinations are held only between the beginning of the session and the middle of October, during the period from the beginning of the Christmas holidays to the end of the first term, or after the end of the session.
(Mar. 6, 1911.)
8. Special supplemental examinations in prerequisite subjects only, held about the middle of October, may be authorized by the Dean, under special circumstances, upon recommendation of the Registration Committee (Mar. 6, 1911), subject to the following regulations:-
 - (a) Students must not have more than three conditions, or a greater number aggregating not over 400 marks.

SUPPLEMENTAL EXAMINATIONS.

(Continued.)

- (b) Students must not have failed in three previous examinations in the subject in which examination is desired. (Jan.27,1913; Oct.26,1914; Oct.4,1915.)

9. Special supplemental examinations in non-prerequisite subjects may be authorized as set forth in (8), in the case of students wishing to enter two years in advance of the year of which the subject in question is a part. (Oct.26,1914.)

10. On or before October 10th of each year, a request is sent to the instructors concerned to prepare the necessary supplemental examination papers for students sitting at the special supplemental examinations, held about October 15th. The same instructors will read and grade the students' papers in their subjects, and transmit the returns to the Dean on the forms provided, at the earliest possible date. These returns are urgently required to permit of advising students whether or not they may proceed with their work.

11. Applications for special October supplemental examinations must be made when the student registers, or not later than September 30th of each year.

12. Students in the graduating class must remove all conditions before the opening of the second term in their final year, and special supplemental examinations are granted for this purpose during the Christmas holidays, or during the examination period in January of each year, except as noted in "Degrees". Students must apply to the Examination Committee one week in advance for such examinations.

Note:- Conditions in third year (non-prerequisite) may now be carried without necessarily barring from degree. (See "Degrees".)

13. Special supplemental examinations are arranged by the Examination Committee in cases of conflict of examination dates, provided written application is received from the student concerned on or before September 14th of each year, and the proper fees are paid to the University Bursar.

14. The pass mark for first supplemental examinations is 50%. For supplemental examinations in subjects in which the candidate has already failed twice, the pass mark is 60%; in this connection unexcused absence from the regular term examination is considered a failure. Lists of students required to make 60% in supplemental examinations are kept on file by the Dean.

(May 26,1925; Feb. 1,1926.)

SUPPLEMENTAL EXAMINATIONS.
(Continued.)

15. Final year students who fail for their degree, but whose standing is such that they receive permission from the Faculty to attempt supplemental examinations regularly held in the autumn in the subjects in which they have failed, shall be required in their supplemental examinations to obtain at least 50% in all subjects in which they have failed, and in the major subjects either a minimum of 60%, or such standing between 50% and 59%, inclusive, as will, combined with their standing in the major subjects already passed in the spring, give an average of at least 60% in the whole group of major subjects. The term major subject is to be taken as including all final year subjects which are counted for honours in the particular course taken by the student concerned. (Nov. 1, 1926.)

16. Partial students are not eligible to take supplemental examinations.

17. Instructors receive \$5.00 for each student taking a special supplemental examination.

SUPPLEMENTAL SCHOOLS.

1. Supplemental schools are held each year for students who have failed in drafting or laboratory courses, in which there are no written examinations. To be eligible to attend a supplemental school, a student must:-

(a) Have secured a standing of at least 30% in the subject in question. Should his standing be lower than 30%, he must repeat the regular course. (Mar. 3, 1913.)

(b) Pay a fee of \$10.00 to the University Bursar for each school he desires to attend. This fee is handed over to the instructor in charge of the school in payment for the extra services required of him.

2. Supplemental schools are held between 4 and 6 p.m. during October and November of each year.

3. The schedule of supplemental schools is arranged in conference between the Examination Committee and the heads of the Departments concerned.

TERM and SESSIONAL EXAMINATIONS.

1. Examinations are held at the end of the first term in January of each year in subjects which are completed at that time. These may be taken as supplemental examinations by students who have previously failed in the subjects covered. Returns for these examinations are made upon the forms provided, the alphabetical list of students and the order-of-merit sheet for those who take the examinations regularly, and the special forms for those who take the examinations as supplementals. These forms should be returned to the Dean at the earliest practicable date.
2. Term and sessional examinations are held at the end of the second term, in April for the first three years in the engineering courses and for all years in architecture, and in May for the fourth year in the engineering courses. Returns from these examinations are made as for the first term examinations. In addition, returns for prizes, exhibitions, honours, medals, fellowships, etc. are made on the proper forms.
3. The results of the sessional examinations are published in pamphlet form, available for distribution to students who apply for it.
4. The pass mark in term and sessional examinations is 50%.
(Nov. 6, 1911.)

WARNINGS and WITHDRAWALS.

1. Warnings are sent to students in the first year whose standing, as determined by the class examinations, is unsatisfactory. These warnings are issued about the beginning of November and of December in each year.

2. Similar warnings are also sent to students in the second year at the beginning of December in each year.

3. Students in the first and second years whose average standing, at the end of the first term in January, falls below 33% are required to withdraw from the Faculty.

ADVANCED STANDING.

Students may be admitted to advanced standing:

- (a) By special arrangement with the institutions from which they come, e.g. Acadia, Mount Allison, St. Francis Xavier.
- (b) Upon the recommendation of the Committee on Entrance from other Colleges, which considers each case upon its merits, including a consideration of the candidate's employment record. (Dec.5, 1927.)

EMPLOYMENT.

1. Every engineering student must, before he receives his degree, have had at least six to eight months experience in practical engineering work, satisfactory to the Faculty. This requirement applies to the class of 1929, et seq. (Mar. 10, 1925.)

2. The Faculty maintains a standing committee to assist students entering the second, third, fourth and fifth years to find summer employment, and to assist graduating students to find permanent employment. Its activities are limited to advising students and prospective employers, and establishing contact between the two.

3. Early in the second term of each session this committee prepares a bulletin, with the assistance of the various Departments, for circulation among possible employers.

4. The following occupations are not accepted as satisfactory:-

- (a) Salesman in non-engineering field.
- (b) Clerk, e.g., in hotel; bookkeeper or cashier.
- (c) Farmer.
- (d) Seaman.
- (e) Waiter.
- (f) Playground supervisor.
- (g) Attendant at gasoline service station.
- (h) Truck driver.

5. The cadet course in aviation given at Camp Borden, Ont. is accepted as satisfactory employment.

6. Students entering third year from the Royal Military College are required to secure three months' employment between their third and fourth years.

7. Reports of employment must be handed in at the Dean's Office not later than 5 p.m. on October 10th of each year, except when October 10th falls on a Sunday, when they must be handed in not later than 5 p.m. on October 11th.

8. Matters affecting employment of students in Architecture are handled by the Department of Architecture.

(Dec. 5, 1927.)

4. Final year students failing in subjects not aggregating more than about 30% of the total obtainable marks, need not repeat any of the courses, but are allowed to sit for special supplemental examinations in September of each year, or for the regular examinations of another session. (May 26, 1925.)

5. Final year students whose failures aggregate more than the above, must repeat all final year subjects in which they have failed. They may also be called upon to repeat other subjects in which their standing was low. (May 26, 1925.)

6. Students exempted from a certain proportion of their work in any year, shall nevertheless be ranked with other students in that year, on a percentage basis calculated on the subjects which they take. For example, assuming ten subjects in the course, a student exempted in one or more, and averaging 60% in all of the others, would rank equal with another student who averaged 60% in all ten, but when, in the opinion of the Dean, a student, owing to exemptions without corresponding handicaps, pursues a course which is appreciably lighter than that of the average student in his year, he may be ranked as though he had obtained only "pass" marks in the subjects in which he held exemptions: always provided, however, that an exempted student may, if he so desire, come up for examination in exempted subjects at the regular time and be entitled to whatever marks he obtains. (Mar. 5, 1917.)

7. In the case of "optional"* course approved by the Faculty for insertion in the calendar, credit may be given for standing obtained in accordance with the ordinary rule based upon lecture hours, but such credit shall in no case raise the minimum number of marks required to pass in any year. (*The word "optional" has since acquired another meaning) (Mar. 5, 1917.)

8. Failures in drafting room and laboratory subjects in which it is not practicable to set written supplemental examinations, are divided into three classes:-

FF. Those obtaining less than 30% of full marks.

F. Those obtaining less than 50% of full marks, but not falling under class FF.

D. Those obtaining 50% or more of full marks who are, however, deficient in certain essential parts of their work. The mark "D" is to stand opposite the student's name in the record until the deficiency in question is made up and the true mark can be entered.

Students coming under class FF are required to repeat the work, except in cases where the Faculty decides that failure was due to excusable absence, and then such cases are dealt with under class F.

Students coming under classes F and D are given an opportunity to make good their work by attending Supplemental Schools.

Students in classes F and D are permitted to register in subjects for which their supplemental work, as above, is prerequisite, on the understanding that registration will be cancelled at the end of the supplemental schools in the event of their failure to make good their deficiencies.

(Mar. 3, 1913.)