The fourth regular meeting of the Senate of The University of British Columbia for the Session 1968-69 was held on Wednesday, December 4, 1968 at 8:00 p.m. in the Board and Senate Room, Administration Building.

Present: Dr. F. K. Hare (Chairman), Dean W. M. Armstrong, Dr. C. S. Belshaw, Mr. S. Black, Mr. C. B. Bourne, Mr. F. K. Bowers, Mr. D. M. Brousson, Mr. F. J. Cairnie, Dr. S. D. Cavers, Dr. J. D. Chapman, Dr. R. M. Clark, Dr. D. H. Copp, Dean G. F. Curtis, Mr. W. Ferguson, Dr. W. D. Finn, Mr. D. A. Freeman, Dr. S. M. Friedman, Dean W. H. Gage, Dean J. A. F. Gardner, Dr. W. C. Gibson, The Hon. Howard C. Green, Dr. N. A. Hall, Mr. W. L. Holland, Dr. H. L. Keenleyside, Dr. D. T. Kenny, Dr. P. Larkin, Rev. E. C. LeBel, Mr. S. Lefeaux, Dean S. Wah Leung, Mr. K. M. Lysyk, Dean Helen McCrae, Dr. C. A. McDowell, Dr. J. R. McIntosh, Mrs. H. J. MacKay, Mr. I. S. McNairn, Mr. D. F. Manders, Mr. John R. Meredith, Dr. Finlay A. Morrison, Dr. D. B. Moyls, Mr. D. Munton, Dr. J. M. Norris, Dr. H. P. Oberlander, Dean V. J. Okulitch, Dr. G. J. Parfitt, Dr. A. J. Renney, Dean B. E. Riedel, Mr. J. V. Rogers, Dr. G. Rosenbluth, Mr. Stuart Rush, Dr. A. D. Scott, Dean M. Shaw, Acting Dean C. E. Smith, Dr. J. H. G. Smith, Dr. M. W. Steinberg, Dr. R. W. Stewart, Mr. B. Stuart-Stubbs, Rev. W. S. Taylor, Dr. G. H. N. Towers, Mr. Mark Waldman, Mrs. B. E. Wales, Dr. H. V. Warren, Dr. Wm. A. Webber, Dean P. H. White, Mr. D. R. Williams, Acting Dean J. H. Young, Dr. S. H. Zbarsky.

Observers: Mr. J. A. Banham, Mr. T. A. Myers, Mr. K. Buttedahl, Mr. J. F. Stott.

Messages of regret for their inability to attend were received from Chancellor J. M. Buchanan, Dr. M. Bloom, Dean I. McTaggart-Cowan, Mr. J. Guthrie, Dr. W. S. Hoar, Mr. V. J. Housez, Dean J. F. McCreary, Mr. Justice J. MacDonald and Mr. D. F. Miller.

The Chairman called the meeting to order and stated that the Information Officer had asked permission to record the proceedings of Senate. Furthermore permission was requested by the Secretary to seat 39 people in the gallery for this meeting, rather than the usual 30. Senate agreed to these requests.

Minutes of the Previous Meeting

Dean Gage)
Dean Okulitch)

That the Minutes of the third regular meeting of the Senate for the Session 1968-69, held on October 30, 1968, having been circulated, be taken as read and adopted, with the following Amendment:

Page 4008: Insert as a penultimate paragraph:

"Attention was drawn to the fact that no mention was made of the needs of the Geology Department. It was reported that this was the only university in British Columbia training professional geologists; that we could not even now supply the demand, and that in the successful finding of the new mines, British Columbia was dependent for maintaining from 20 to 25 cents of every dollar earned in British Columbia. It was noted that Moscow University's showpiece building housed the three departments they considered most essential, namely Mathematics, Geology, and Geography."

Carried

Business arising from the Minutes

"Petition to the Senate of the University of British Columbia in support of a new Earth Sciences Building

"We, the undersigned students of Geology, graduates and undergraduates, are deeply concerned about the deplorable state of accommodation in the Department of Geology at present, and the absence of any provision for new facilities in the near future. In excluding Geology from the four new building projects under consideration, the Senate Committee on Academic Building Needs apparently has failed to recognize the critical need for a new Earth Sciences Building. Existing teaching space is severely congested; research equipment, laboratories and offices are dispersed among eleven structurally-inadequate buildings and huts; storage space is virtually non-existent; and technical shops are chaotically overcrowded. We urge the Senate Committee to give top priority to construction of an Earth Sciences Building. Canada's largest Department of Geology should not be housed in army huts."

Business arising from the Minutes

"Petition to the Senate of the University of British Columbia in support of a new Earth Sciences Building (Continued)

The Petition was presented by a student senator, who reported that the Petition bore 811 signatures.

Following discussion, it was agreed that the petition be referred to the Academic Building Needs Committee.

Report on Status of Consideration of the Student Brief

The Chairman of the Committee to examine the Student Brief stated that the Senate would recall that the conversations between the two committees had been broken off, but the Student Council had reconsidered its position and decided to continue meeting with the Senate committee. The discussions involved an interpretation of the terms of reference. It was reported that matters were now on a fairly flexible basis. The two committees had met on the evening of December 3, 1968, at which time it had been decided to set up a number of small "task forces", as follows:

"1. Academic and administrative appointments:

Mr. Tobin S. Robbins; Dr. A. D. Scott, Dean M. Shaw (part-time)

2. Faculty Council and student discipline:

Dr. C. S. Belshaw and Mr. David Zirnhelt

3. Student aid, scholarships and loans - financing student education:

Mr. Dave Robertson

4. Housing for graduate and undergraduate students and physical planning and building for the University:

Mr. Fraser D. Hodge and Dr. Wm. Webber

Business arising from the Minutes

Report on Status of Consideration of the Student Brief (Continued)

5. Students on governing bodies in the University:

Mr. Bud Abbott; Mr. D. M. Brousson; Mr. D. F. Miller; Mr. M. Waldman.

6. (a) Evaluation
(b) Academic programme
(c) Curriculum
(d) Relationship between teaching and research in the University:

Mr. Michael H. Bjornson; Dr. J. D. Chapman, Mr. Frank W. Gregory; Mr. Les Horswill; Mr. M. Keith Moore"

These two committees expect to meet again on December 17, 1968, and are also planning to meet once a week in the coming term. Before discussions were temporarily broken off some measure of agreement had been reached on discussing the problem of student discipline.

Mr. David Zirnhelt was invited to speak. He stated that the students were pleased that discussions were now going on and would continue after the beginning of January, 1969.

Page 4017 of the Minutes of October 30, 1968 - Appointment of a Presidential Advisory Committee on Internal and External aspects of University Government

The Chairman reported that the immediate task of this committee would be to prepare a submission to the Perry Committee. He further reported that an omission from the current agenda was the statement prepared by the Committee of Deans that had already been forwarded to Dr. Perry. A brief summary of the report was given.

Dr. Hall, Chairman of the Presidential Advisory Committee on Internal and External aspects of University Government, stated that a report of the Committee would be available soon.

Page 4017 of the Minutes of October 30, 1968 - Appointment of a Presidential Advisory Committee on Internal and External aspects of University Government (Continued)

Dr. Rosenbluth)
Dr. McDowell)

That the reports referred to above be circulated to the Senate and placed on the agenda of the next meeting of Senate.

Carried

From the Board of Governors

(i) The Board resolved that the report on University Facilities for the Marine Sciences on the Pacific Coast of Canada be referred to Deputy President W. M. Armstrong for review in terms of short and long-range fiscal implications, for both operating and capital aspects of this programme; and that the President be authorized to release $2,000.00 from Operating Revenues to finance the work of the Committee during 1968-69 if required.

(ii) The Board gave authorization to the President to establish a Clients' Committee for the under-noted building facilities, the Clients' Committee to be instructed to proceed with the preparation of facilities lists for presentation to the Board:

Buchanan Extension
Multi-purpose Science Building - Stage I
Undergraduate Library Addition - Stage I
Faculty of Law Building

The Chairman agreed that the membership of the Clients' Committees be expanded to provide for student members.

(iii) Notification of approval of Senate recommendations:

(a) Second Year Dental Hygiene Programme as recommended by the Faculty of Dentistry.

(b) Increase from 2 to 3 units for Pharmacy 110 as recommended by the Faculty of Pharmacy.

(c) Commencing 1969-70 the First Year class in Law be limited to such a number that will result in a total enrolment in all three years which will not exceed 700, exclusive of graduate students, as recommended by the Faculty of Law, subject to periodic review.

From the Board of Governors (Continued)

(d) That the Department of Continuing Medical Education be changed to a Division of Continuing Medical Education in the Faculty of Medicine, as recommended by the Faculty of Medicine.

Report by the President

The Chairman asked for and received Senate's approval to include in this and future agendas an item "Report by the President".

Dr. Hare then reported on the recent newspaper headlines and television radio coverage concerning universities in British Columbia. He stated that this was not a calculated opening of a campaign, but the embarrassing consequence of a Law Faculty meeting at which he had spoken. Dr. Hare therefore decided it would be wise to follow this up with a press conference. He quoted from U.B.C. Reports of December 5, 1968, covering his press conference and also made reference to arguments in this publication concerning restrictions on enrolment and the allocation of capital funds.

Dr. Hare then spoke concerning public reaction to the press release which had been entirely hostile. He said that the question being asked by the business community and the public at large is: "Why should we build more university space when (1) the students in the university don't seem to be grateful and (2) the staff does not seem to be able to keep the students under control?"

Senate was assured that the criticism of the universities was being made by responsible and influential citizens, including members of the Alumni Association.

Report by the President (Continued)

It was agreed that the universities' case must be presented forcefully to overcome the public's lack of understanding of the universities' problems.

Mr. Munton)
Dr. Belshaw) *That the Senate of the University of British Columbia strongly endorses and supports the recent statements of the President regarding the existence of an education crisis at British Columbia universities stemming from increasing enrolments and insufficient financial resources, and reaffirms the necessity and urgency of informing the general public of the Province as to the nature and seriousness of this crisis.*

Carried

In answer to a query, the Chairman reported that public criticism of the University, as revealed in his mail, was not related to the question of limitation of enrolment, but rather to an impression that the University was unable "to manage its affairs".

It was suggested that any public relations campaign mounted by the University should stress the requirements of all British Columbia's universities, rather than just those of The University of British Columbia.

Committee on Prizes, Scholarships and Bursaries

A summary of new awards and changes in awards shown in Appendix A had been circulated.

Dean Gage)
Mr. Meredith) *That the new awards and changes in awards be accepted, subject to the approval of the Board of Governors, and that letters of thanks be sent to the donors.*

Carried

Reports of Committees of Senate

New Programmes Committee

(a) Proposal to institute an M.Sc. degree in the field of Human Nutrition offered by the School of Home Economics

The Chairman reported that the subject matter of the proposed programme clearly fell in the field of science. The proposal provided for an interdisciplinary committee of the Faculty of Graduate Studies with representatives from the Faculties of Agricultural Sciences, Medicine and Science to supervise the programme in its early stages.

Mr. Bourne)
Dr. Moyls)

That Senate approve the proposal of the Faculty of Graduate Studies to institute an M.Sc. degree in the field of Human Nutrition to be offered by the School of Home Economics.

Carried

(b) Proposal to institute a Ph.D. programme in Slavonic Literature

The Chairman reported that assurances had been given that the existing members of the Department were able to undertake this new programme. It was planned to extend Ph.D. work to other areas, especially Linguistics, as soon as one or two senior scholars could be added to the Department.

Dr. Norris)
Mr. Bourne)

That Senate approve the proposal of the Faculty of Graduate Studies to institute a Ph.D. programme in Slavonic Literature.

Carried

Reports of Committees of Senate

Curriculum Committee

The Chairman reported that the Committee had considered the courses Anthropology 545 and Sociology 545 referred to it by Senate.

Dr. Hall)
Dr. Chapman) *That Senate approve the new courses proposed by the Faculty of Graduate Studies - Anthropology 545 and Sociology 545.*

Carried

Nominating Committee

(a) Membership of Continuing Education Committee

The following list of members was recommended to Senate:

Dean W. M. Armstrong	Dean V. J. Okulitch
Dr. Cyril Belshaw	Mr. G. R. Selman
Mr. R. M. Bibbs	Dr. R. F. Sharp
Professor S. Black	Dr. J. H. G. Smith
Mr. D. M. Brousson	Dr. R. W. Stewart
Mr. F. J. Cairnie	Dr. C. Verner
Mr. J. E. Currie	Dean P. H. White
Dr. G. W. Marquis	Dr. D. H. Williams
Dean J. F. McCreary	Dr. J. H. Young

Chancellor)
President) ex officio
Registrar)

It was agreed that the nominations be accepted with the addition of further members, to be decided by the President and the Chairman of the Nominating Committee. Among the additional members should be four students - possibly including the President of the Alma Mater Society and students in Continuing Education. It was also suggested that some women be included.

Reports of Committees of Senate

(b) Other Committees of Senate

It was reported that the Senate Nominating Committee recommends to Senate that student senators be nominated for membership on the committees as indicated:

Nominating Committee

(b) Other Committees of Senate (Continued)

Admissions	Mr. William A. Ferguson
Agenda	Mr. Stuart A. Rush
Curriculum	Mr. Mark Waldman
Long-Range Objectives	Mr. Don Munton
Liaison on Planning Permanent Buildings	Mr. Stuart A. Rush
Library	Mr. Don Munton (Plus two other non-Senate student members)
New Programmes	Mr. Don Munton

Dr. McDowell)
Dr. Kenny)

That the Senate approve having student senators as members on certain Senate Committees, as indicated, and that Senate also approve having a student senator on the Academic Building Needs Committee.

Carried

It was agreed that Mr. William A. Ferguson be asked to be the student senator on the Academic Building Needs Committee.

Reports of Committees of Senate

Nominating Committee

(b) Other Committees of Senate (Continued)

It was agreed that an additional student be added to certain committees, and two additional students to the Admissions Committee. This was left to the President and the Chairman of the Nominating Committee.

(c) Membership of Ad hoc Committee on Enrolment Policy

The following list of members was recommended to Senate:

Dr. C. S. Belshaw	Dr. R. Restrepo
Dean I. McT. Cowan	Dr. G. Rosenbluth
Dean W. H. Gage	Dr. C. E. Smith
Dr. D. T. Kenny	Dean P. H. White
Dean V. J. Okulitch	Dr. J. H. Young

Chancellor)
President) ex officio
Registrar)

Mr. Munton)
Dean Armstrong) *That Senate approve the list of committee members, with the addition of Mr. Stuart Rush.*

Carried

In further discussion it was agreed that the President and Dean Gage consider additions to the committee from representatives of professional faculties, the Alumni Association, and two or three students, possibly the President of the Alma Mater Society and the President of the Graduate Student Association or their nominees.

Senate expressed its hope that a report of this committee would be produced as soon as possible in view of the enrolment crisis.

Reports of Committees of Senate

Long-Range Objectives Committee

The Chairman of the Committee spoke to a preliminary report that had been circulated earlier.

Dr. Belshaw)
Dr. Norris) *That the preliminary report of the Long-Range Objectives Committee be received.*

Carried

Mr. Stuart Rush asked whether a study was being made of present space utilization - making use of buildings not now used. Dr. Belshaw stated that a study was being made of the relationship between the use of various types of space throughout the campus.

A lengthy discussion followed in which it was suggested that the committee had been concerned with the existing situation. The role of the University and the social relevance of its efforts had not yet been sharply defined, but the committee would be attempting to formulate a philosophy to guide the University in the future.

Dr. Hare thanked Dr. Belshaw for the preliminary report and congratulated him on the work done so far.

It was stated that the committee would appreciate comments, ideas and briefs from members of Senate by January 1, 1969.

Report of Senate representatives of the Senate Liaison Committee with the Board of Governors on Planning Permanent Buildings

The report had been circulated earlier.

Dr. Oberlander)
Dr. J. H. Smith) *That the report be received.*

Carried

After a lengthy discussion it was agreed that the report be taken into consideration by both the Long-Range Planning Committee and the Academic Building Needs Committee.

The three committees were urged to complement one another and not have unnecessary overlapping or duplication of effort.

Report of the Librarian

The Librarian's Report had been distributed for the October 30, 1968 meeting of Senate and comments on it by the Chairman of the Senate Library Committee had been circulated.

Mr.Stuart-Stubbs)
Dr. Norris) *That the Report of the Librarian, together with the letter from the Chairman of the Senate Library Committee, be received.*

Carried

Reference was made to Paragraph 4, Page 1 of the letter -

> "The University has completely changed its study habits in the last five years from one depending primarily upon a text book and lecture notes, to one requiring more direct student participation in the use and analysis of sources."

It was emphasized that the nature of our educational system was changing from a teacher-oriented to a student-oriented one, and therefore

Report of the Librarian (Continued)

provision should be made for more independent study. It should be realized that these changes would affect the library vastly, and consideration should be given to the new types of facilities that would be needed.

Proposals from the Faculties

School of Architecture

Dean White)
Dr. Norris) *That the proposal from the School of Architecture to limit the size of the First-Year class, subject to periodic review, be referred to the Committee on Enrolment Policy.*

Carried

It was agreed that all curriculum proposals be approved, subject to ratification by the Curriculum Committee. Comments on these proposals by Senate members were to be made to the Chairman of the Curriculum Committee by December 20, 1968. (Appendix B)

Faculty of Applied Science

Dean Armstrong)
Dean Okulitch) *That the curriculum and course proposals submitted by the Faculty of Applied Science be approved, subject to review by the Curriculum Committee.* (Appendix B)

Carried

Faculty of Arts

Dr. Young)
Mr. Holland) *That the proposal to offer Asian Studies 335 Extra-sessionally in Japan in the summer of 1969 be approved by Senate.*

Carried

Proposals from the Faculties

Faculty of Arts (Continued)

Dr. Young)
Mr. Holland) *That the course and curriculum proposals be referred to the Curriculum Committee.* (Appendix B)

Carried

Dr. Young)
Dr. Belshaw) *That the list of extra-sessional courses to be offered May/July, 1969 be approved by Senate.*

Carried

Faculty of Commerce and Business Administration

Proposal for a Baccalaureate degree in Accounting

This proposal was referred to the New Programmes Committee.

Faculty of Education

It was agreed to refer the new One-Year Diploma Programmes to the New Programmes Committee.

It was further agreed to refer the other items: (i) Changes in General Regulations (ii) Elementary Division proposals and (iii) Secondary Division proposals to the Curriculum Committee. (Appendix B)

Faculty of Forestry

It was agreed to refer the curriculum and course proposals to the Curriculum Committee. (Appendix B)

Faculty of Graduate Studies

(1) Proposal to change the title of the Master's degree in Agriculture from M.S.A. to M.Sc.

Dr. Moyls)
Dr. Renney) *That Senate approve the change in title of the Master's degree in Agriculture from M.S.A. to M.Sc.*

Carried

Proposals from the Faculties

Faculty of Graduate Studies (Continued)

(2) An explanation was given of the proposal to permit the offering of a Master's degree without thesis and of certain changes in the regulations for Masters' degrees.

The degrees to which this change would apply were given as M.A. M.Sc., M.A.Sc., M.S.A. M.B.A. and M.F.

Dr. Moyls)
Dr. McDowell) *That the proposal to permit the offering of a Master's degree without thesis, excluding the M.A.Sc. and the M.S.A., and proposed changes in degree regulations be approved, with provision for the new regulations to apply to students currently enrolled.*

Carried

School of Home Economics

It was agreed that the proposal to replace the existing Foods and Nutrition programme by:

(a) An Honours programme in Nutrition
(b) A Major programme in Nutrition
(c) A Major programme in Dietetics

be referred to the New Programmes Committee.

It was agreed that the course proposals - two new courses proposed in Nutrition, otherwise minor changes - be referred to the Curriculum Committee. (Appendix B)

Proposals from the Faculties (Continued)

Faculty of Law

Proposals of the Faculty of Law consisted of (i) a calendar statement on limitation of enrolment, the principle of which had been approved earlier by Senate, (ii) a requirement that applicants take the Princeton Law School Admission Tests, and (iii) course changes and introduction of new seminars. (Appendix B)

Dean Curtis)
Mr. Lysyk)

That the three items proposed by the Faculty of Law be accepted by Senate.

Carried

After discussion, it was suggested that Items (i) and (ii) be referred to the Admissions Committee of Senate for a report back to the next meeting of Senate. The mover and seconder of the Motion agreed with the suggestion.

Faculty of Medicine

Proposed establishment of a Division of Biophysics within the Department of Anatomy

It was explained that the change was organizational only and did not indicate the introduction of a new study programme.

It was clear that the Department of Anatomy had no intention of monopolizing the study of Biophysics and that the establishment of the Division would in no manner be prejudicial to the offering in the future of studies in Biophysics by other departments.

Proposals from the Faculties (Continued)

School of Nursing

It was agreed that the proposals be referred to the Curriculum Committee. (Appendix B)

Faculty of Pharmacy

Dean Riedel)
Dean Okulitch) *That the name of the Faculty of Pharmacy be changed to "The Faculty of Pharmaceutical Sciences".*

Carried

Dean Riedel)
Dean Okulitch) *That the designation of the degree in Pharmacy be changed from B.S.P. to B.Sc.(Pharm.).*

Carried

School of Physical Education and Recreation

Dr. Smith)
Dr. Webber) *That the proposal to offer a degree of Bachelor of Recreation be referred to the New Programmes Committee.*

Carried

Dr. Smith)
Dr. Webber) *That the 23 candidates for the B.P.E. degree be granted the degree.*

Carried

School of Rehabilitation Medicine

It was agreed that the course proposals submitted by the School of Rehabilitation Medicine be accepted by Senate, subject to perusal by the Curriculum Committee. (Appendix B)

Proposals from the Faculties (Continued)

Faculty of Science

The proposal for a change in the procedure for determining degree standing was explained. The proposal was to determine degree standing on the required courses for the Honours or Major rather than upon all the courses of the final two years.

Dr. Okulitch)
Dr. Copp)

That the proposal from the Faculty of Science for a change in the procedure for determining degree standing be approved by Senate.

Carried

A brief explanation of the curriculum and course proposals was given. Underlying most of the changes was an attempt to break up large courses into smaller ones. It was agreed to refer these curriculum and course changes to the Curriculum Committee.

(See Appendix B)

Other Business

Public Relations

Mr. Rogers of Trail recounted his experience with the public reaction to the President's recent meeting with the Press. He was convinced that any public sympathy for the critical situation facing universities has been submerged by a growing resentment against the actions of radical students. He expressed the opinion that any immediate appeal to the public by the University was doomed to failure. It was his view that unless the majority of students take action to restore public confidence in the universities, the universities will suffer in their relationships with government.

Other Business (Continued)

Admissions Policy

Mr. Munton)
Mr. Waldman)

That the Senate Admissions Committee be requested to review the present enrolment process, the Committee's own role in that process, and the existing enrolment requirements with respect to students transferring from other post-secondary institutions, and that this report be presented, if at all possible, to the January 1969 meeting of Senate.

Carried

It was reported that enquiries made with Vancouver City College, Selkirk College and Capilano College had not revealed difficulties in the transfer of students from these institutions to the University.

Reform at Laval University

Mr. Brousson presented to the Chairman of Senate a document in French, outlining proposals for reform at that institution.

The meeting adjourned at 11:30 p.m.

The next meeting will be held on Wednesday January 8, 1969, at 8:00 p.m.

Secretary

Confirmed

Chairman.

APPENDIX 'A'

Summary of New Awards and Changes in Awards Recommended to Senate

New Awards

Charles Brooks Memorial Bursary

A bursary of $100, given as a memorial to Charles Brooks by his wife, is offered to students entering the final year of Mineral Engineering. The award will be made to a student with a sound academic record who needs financial assistance.

The Ghent Davis Memorial Scholarship

A scholarship in the amount of $750, gift of Mrs. Frances Davis in memory of her husband Ghent Davis, is offered to an undergraduate or graduate student in Commerce and Business Administration. The award will be made to a student who, though not necessarily among the leaders of his class, is in the opinion of the Faculty deserving of financial assistance. At the discretion of the Faculty the sum may be divided between two students.

Changes in Awards

Health Officers' Prizes

These have been replaced by prizes to be known as:

The G.F. Amyot and S. Stewart Murray Prizes

Two cash prizes of $100 each have been provided by a fund established and maintained by donations from the Health Officers of British Columbia to honour these two public health physicians who contributed greatly to the development of public health services in British Columbia and assisted in the establishment of the Department of Health Care and Epidemiology, Faculty of Medicine. The prizes will be given to students who have demonstrated leadership and academic or research ability, selected by the Department after consultation with the Health Officers' Council of British Columbia. The S. Stewart Murray prize will be awarded for meritorious scholarship in the field of public health, preventive medicine or epidemiology; the G. F. Amyot prize will be awarded for meritorious scholarship in the field of health care research and administrative medicine.

Appendix 'B'

Course and Curriculum Changes referred to Senate Curriculum Committee

FACULTY OF APPLIED SCIENCE

First Year

New Courses — Mathematics 151 (1½) Linear Algebra
Mathematics 156 (1½) Vector Calculus

Change — Mathematics 155 - hours and description changed

Second, Third and Fourth Years

Agricultural Engineering

Second Year — Delete Biology 101
Move Chemistry 253 from third year to second year.
Add Mathematics 251

Third Year — Move Biology 101 from second year to third year
Delete Chemistry 253, Plant Science 321, M.E. 372
Change M.E. 365 and M.E. 479 from compulsory to optional courses.
Add elective courses and options.

Fourth Year — Change Plant Science 344 from compulsory to elective
Revise electives and options.

Chemical Engineering

Changes — Che.E. 353)
Che.E. 354) Hours changed
Chem. 257)

New Course — Min. 271

Chemistry

Changes — 253 Description revised
257 Hours changed
352 Hours changed

Civil Engineering

Changes — 467 Description revised
351)
476) Moved from second to first term

FACULTY OF APPLIED SCIENCE (Continued)

Electrical Engineering

New Courses	455	Communication Systems
	483	Radiation and Propagation
	485	Computer Methods in System Design
	490	Topics in Electrical Engineering
Changes	355	Title, content and hours changed
	367	Hours changed
	453	Title, content and hours changed
	463	Hours changed
	467	Title, content and hours changed
	469	Title, content and hours changed
	473	Hours changed
	475	Title, content and hours changed
	477	Hours changed
	481	Hours changed

Fourth Year curriculum changes.

Geological Engineering

Change 401 replaced by:

404 (1½) Structural Geology
419 (1½) Stratigraphy and Sedimentation

Mechanical Engineering

Changes	352	Number changed to 252
	463	Hours reduced

Metallurgical Engineering

Change 478 Title, content and number changed to:
378 Electron Theory of Solids

Mineral Engineering

New Course	271	Interfacial Properties
Changes	370	Content, hours and description amended
	453	Hours increased
	455	Title and description changed

Curriculum changes involving options for Second, Third and Fourth Years.

FACULTY OF APPLIED SCIENCE (Continued)

Engineering Physics

New Courses
353 (1½) Cryogenics
354 (1½) Vacuum Physics and Beam Technology
457 (2) Continuum Mechanics

Deletion 458

Curriculum changes involving Second, Third and Fourth Years.

SCHOOL OF ARCHITECTURE

Revision of introductory statement in Calendar, change in application date and statement explaining amended admission requirements.

FACULTY OF ARTS

Anthropology and Sociology

Anthropology

New Courses
431 Museum Principles and Methods
450 Formal Structure of Anthropological Theories

Sociology

New Courses
250 Introduction to Quantitative and Formal Theoretical Sociology
260 Introduction to Socio-Cultural and Socio-Ethnographic Studies
354 Communities
355 Societal Dynamics
356 Social Ecology
357 Evaluative Structures
362 Collective Behaviour
363 History of Social Thought
364 Sociology of Knowledge
366 Principles of Social Organisation
400 Sociological Research
450 Theoretical Problems
451 Problems in Research Design and Analysis
462 Social Change
464 Social Movements
465 Sociology of the Arts

FACULTY OF ARTS (Continued)

Sociology (Cont'd)

New Courses	466	Sociology of Education
	467	Sociology of Science
	469	Social Ideologies
	470	Formal Interactional Analysis
	471	Social Control
	472	Ethnomethodology
	473	Sociology of Mental Illness
	474	Professions and Occupations
	475	Dynamics of Interpersonal Relations
Changes	415	Number changed to 463
	325	Number and Title changed to 352 Organisations
	420	Number and Title changed to 353 Work and Industry
	430	Number and Title changed to 300 Comparative Sociology
	410	Number and Title changed to 351 Experimental Small Groups
	315	Number and Title changed to 361 Social Stratification
	306	Number and Title changed to 365 Socialisation
	421	Number and Title changed to 461 Political Sociology
	405	Number and Title changed to 468 Issues in Sociological Theory
Deletions	301	
	406	
	407	

Asian Studies

New Courses	Japanese 301	Classical Japanese
	Japanese 440	Supervised Study in the Japanese Language
	Chinese 342	Reading Course in Chinese for Honours Students
	Chinese 440	Supervised Study in the Chinese Language
	Chinese 442	Tutorial in Chinese for Honours Students
	Indic Languages 440	Supervised Study in Indic Languages

FACULTY OF ARTS (Continued)

Asian Studies (Cont'd)

Changes

101 Changed to Chinese 100 Basic Chinese
301 Changed to Chinese 300 Advanced Modern Chinese
401 Changed to Chinese 400 Classical Chinese II
413 Changed to Chinese 410 Twentieth Century Chinese Authors
411 Changed to Chinese 411 Premodern Chinese Fiction and Drama
409 Changed to Chinese 412 Readings in Classical Chinese Prose
419 Changed to Chinese 413 Readings in Classical Chinese Poetry
201 Changed to Chinese 200 Intermediate Chinese
101 Changed to Japanese 100 Basic Japanese
300 Changed to Japanese 300 Advanced Modern Japanese
342 Changed to Japanese 342 Reading Course in Japanese for Honours Students
400 Changed to Japanese 400 Readings in Modern Japanese Prose
407 Changed to Japanese 401 Readings in Premodern Japanese Prose
408 Changed to Japanese 402 Readings in Japanese Poetry
200 Changed to Japanese 200 Intermediate Japanese
442 Changed to Japanese 442 Tutorial in Japanese for Honours Students
305 Changed to Sanskrit 305 Introductory Sanskrit
414 Changed to Sanskrit 414 Intermediate Sanskrit

Deletions

406
440
449

Classics

New Courses

Latin 205 Intensive Intermediate Latin
Latin 301 Latin Literature of the Classical Period

Changes

Classical Studies 430 Re-titled Athens
Classical Studies 431 Re-titled Rome and Roman Britain

Deletion

Latin 210

FACULTY OF ARTS (Continued)

Creative Writing

New Courses	496	Tutorial
	497	Tutorial
Change	498	Tutorial (Description changed)

Economics

New Courses	201	Political Economy II
	304	Introduction to Empirical Economics
	305	Empirical Problems in Economics
	354	Probability and Economics
	364	Statistical Inference in Economics
	454	Introduction to Econometrics
Deletions	304	
	404	

English	210	An Introduction to English Honours
	351	History of the English Language
New Courses	371	Seventeenth-century Poetry
	372	Seventeenth-century Prose

(English 371 and English 372 are to be given in alternate years.)

	441	Canadian Prose
	442	Canadian Poetry
Change	442	Number changed to 460

French

New Courses	100	Beginning French
	115	French Practice
	301	Honours Seminar, I
	417	Twentieth-Century French Poetry
Changes	223	Changed to 202 Studies in French Language and Style, I
	304	Changed to 402 Studies in Franch Language and Style, III
	120	Re-titled Contemporary French: Language and Literature
	210	Re-titled Second-year French
	220	Re-titled An Introduction to French Literature
	302	Re-titled Studies in French Language and Style, II

FACULTY OF ARTS (Continued)

French (Cont'd.)

Changes (Cont'd.)	400	Re-titled A Survey of French Literature in Translation
	401	Re-titled Honours Seminar, II
	411	Re-titled Poetry and Drama of the Nineteenth Century
	412	Re-titled The Nineteenth-Century Novel
	413	Re-titled Currents of Thought in Nineteenth-Century Literature
	414	Re-titled The Twentieth-Century Drama

Geography

New Courses	315	Ecosystem Geography
	374	Statistics in Geography I
	375	Statistics in Geography II
	414	Fluvial Geomorphology

German

New Course	123	German Language - accelerated course
Changes	405	Re-titled Prose Works of the Nineteenth Century
	406	Re-titled Studies in the Classical Period

Hispanic and Italian Studies

New Course	Spanish 304	Modern Spanish Drama
Changes	Spanish 303	Changed to 415
	Spanish 404	Re-titled Spanish Drama
	Italian 310	Re-titled Italian Literature in English Translation

History

New Course	100-199 Problems in History
Deletions	100
	201
	202
	204
	205
	206
	212

FACULTY OF ARTS (Continued)

Philosophy

New Course 474 Russian and Soviet Scientific Thought

Change 414 Description changed

Political Science

New Courses 442 Problems in International Relations: World Communism
443 Problems in International Relations: Rich Nations, Poor Nations and International Stability

(These two courses will also be listed under International Relations.)

Change 309 Change in unit value

Religious Studies

New Courses Religious Studies 410 Modern Hinduism
Hebrew 300 Advanced Hebrew (Biblical)

Slavonic Studies

New Course Russian 180 Intensive Summer Workshop in Russian

Change Russian 210 Change in unit value

FACULTY OF COMMERCE AND BUSINESS ADMINISTRATION

New Courses Commerce 110 Probability and Statistics
(This course replaces Mathematics 211 and 212)

Commerce 210 Quantitative Analysis for Business
(This course replaces Mathematics 311 and 312, and Commerce 311 and 312)

Commerce 310 Simulation Models in Business

Commerce 410 Problem-Solving Methods

Commerce 411 Selected Topics in Quantitative Methods
(The two courses Commerce 410 and 411 replace Commerce 495)

FACULTY OF COMMERCE AND BUSINESS ADMINISTRATION (Continued)

Change	Commerce 323	Title changed to: Introduction to Administrative Studies
Deletions	Mathematics 211	
	212	
	311	
	312	
	Commerce 495	

FACULTY OF EDUCATION

Revision of calendar statements concerning changes in general regulations.

Elementary Division

New Course	Education 438	Observation and Recording

Changes	Education 203	Number changed to 303
	204	" " " 304
	201	" " " 321
	202	" " " 322
	205	" " " 323
	207	" " " 324
	209	" " " 325

Mathematics 203 - divided into two courses:

Mathematics 370	Mathematics for Elementary Teachers
Education 371	Methods of Elementary School Mathematics

Mathematics 303 - divided into two courses:

Mathematics 372	Topics in Mathematics for Elementary Teachers I
Mathematics 373	Topics in Mathematics for Elementary Teachers II

Education 417)
" 437) Unit value changed from 1½ to 1½-3

Second Year Elementary Transfer Programme discontinued

FACULTY OF EDUCATION (Continued)

Secondary Division

Changes — Education 301 - divided into two courses:

Education 301	Introduction to School Learning
Education 302	Introduction to Educational Evaluation

Education 435 - Description changed
Education 490 - Title and description changed
The Secondary School Library: Selection of Materials

Deletion — Education 410

New Concentration in Commerce (Data Processing)

Change in requirements of First Year to allow more flexibility.

FACULTY OF FORESTRY

New Course — 495 Forest Environmental Management

Changes

350	Hours changed
351	Unit value, title and description changed - Forest Protection
372	Unit value increased, description revised
462	Unit value decreased, hours changed
464	Unit value decreased, hours changed
471	Description revised
472	Description revised
476	Description revised
477	Description revised
482	Revised to incorporate Forestry 483 - Hydrology of Forest Land Use - unit value increased to 3

Deletion — 483

Additional Non-Forestry Electives:

Mathematics 200
Mathematics 300
Botany 303
Commerce 322
Commerce 465

Changes in Second, Third and Fourth Year Curriculum

FACULTY OF GRADUATE STUDIES

Anatomy

New Courses	505	General Cytological Biophysics
	506	Biophysics of Cell Membranes

Anthropology

New Course	515	Cultural Evolution and Cultural Ecology

Architecture

New Course	500	Architecture Seminar
Changes	503	Title, description and unit value changed: History of Architectural Theory and Philosophy
	504	Title and description changed: The Residential Environment
	549	Unit value increased to 9. Title and description changed: Research Project for the Master's Degree
Deletion	500	

Botany

New Courses	528	Current Topics in Plant Biochemistry (1969-70 and alternate years)
	529	Chemical Plant Taxonomy (1969-70 and alternate years)
Change	543	Title and description changed: Recent Advances in the Biology of Plant Cells (1969-70 and alternate years)

Civil Engineering

New Courses	514	Advanced Reinforced Concrete Design II
	519	Earthquake Resistant Design of Structures
	521	Optimization of Engineering Design
	537	Finite Elements
Changes	550	Renumbered 529, description changed

FACULTY OF GRADUATE STUDIES (Continued)

Civil Engineering (Cont'd.)

Changes (Cont'd.)

553	Number	changed to	531
554	"	"	532
555	"	"	533
556	"	"	535
557	"	"	505
558	"	"	510
559	"	"	511
560	"	"	546
561	"	"	542
562	"	"	543
563	"	"	545
564	"	"	550
566	"	"	548
567	"	"	540
568	"	"	541
569	"	"	551
570	"	"	513
571	"	"	515
572	"	"	517
579	"	"	544
580	"	"	507
581	"	"	508
582	"	"	500
583	"	"	501
585	"	"	503
588	"	"	574
589	"	"	576
590	"	"	570
591	"	"	571
592	"	"	572
593	"	"	580
594	"	"	578
595	"	"	585
596	"	"	590
597	"	"	591

Deletions 551
552
573

Computer Science

New Courses

501	Theory of Automata
502	Adaptive Systems
503	Formal Languages
531	Topics in the Theory of Automata

FACULTY OF GRADUATE STUDIES (Continued)

Computer Science (Cont'd.)

New Courses (Cont'd.)

532 Topics in Adaptive Systems
534 Topics in Computer Systems
535 Topics in Simulation
537 Topics in Coding and Information Theory
538 Topics in Information Processing

Electrical Engineering

New Course 595 Digital Systems Engineering

Changes 569 Description changed

573 Unit value reduced to 1. Title and description changed: Synchronous Machine Dynamics

French

Changes 500) 501) 502) 503) 504) 505) 506) 507) 508) 509) 510) 511) 512) 513) 514) 515) 516) 520) - Change in unit value

Forestry

New Courses
510 Advanced Forest Entomology
558 Studies in Forest Tree Physiology
567 Forest Sampling Methods
568 Dynamic Programming in Resource Allocation
576 Energy Transfer Mechanisms in Wood and Related Products
585 Research Methods in Forest Hydrology
591 Studies in Forest Development Planning

Geography

New Course 600 Doctoral Research Seminar

Geology

New Course 546 Directed Studies in Geology

FACULTY OF GRADUATE STUDIES (Continued)

Geology (Cont'd)

Changes

505) These two 3-unit courses divided into three
506) 1½ unit courses:

534 Mechanics of Natural Deformation
544 Rheology and Analysis of Natural Deformation
554 Structure and Properties of Crystals and Crystal Aggregates

520 Description revised

523 This 3-unit course divided into two 1½ unit courses:

533 X-Ray Mineralogy
543 Advanced Mineralogy

525 This 3-unit courses divided into two 1-unit courses:

555 Advanced Igneous Petrology
565 Advanced Metamorphic Petrology

535 This 3-unit course divided into two 1-unit courses:

575 Geological Phase Equilibrium
585 Equilibria in Mineral Systems

Geophysics

Change

501 Title and description changed: Topics in Geophysics and Astronomy

German

Changes

501)	509)	514)	
502)	510)	515)	
503)	511)	517)	- Change in unit value
505)	512)	518)	
508)	513)	519)	
		520)	

Home Economics

New Courses

511 Current Topics in Protein and Amino Acid Nutrition

FACULTY OF GRADUATE STUDIES (Continued)

Home Economics (Cont'd)

New Courses (Cont'd)

513 Current Topics in Lipid Nutrition
515 Current Topics in Vitamin Nutrition
517 Current Topics in Mineral Metabolism
531 Nutrition Seminar
547 Directed Studies
549 M.Sc. Thesis

Mathematics

Change 510 Title changed to Homological Algebra

Deletions 528) Changed to courses under
529) Computer Science

Mechanical Engineering

New Courses 558 Engineering Applications of Statistical Distribution Theory
567 Nonlinear Elasticity
587 Engineering Acoustics

Changes 563 Title changed to Tribology
565 Title and description changed: Linear Mechanical Vibrations
586 Unit value increased

Mineral Engineering

New Course 572 Nature of Adsorbed Molecules

Change 570 Unit value reduced; description changed

Pathology

New Course 521 Recent Advances in Bio-pathology - Chemical Aspects

Changes 500 Description changed
502 Description changed
506 Description changed
520 Titled and description changed: Recent Advances in Bio-pathology - Morphological Aspects
525 Prerequisites changed to Pathology 500 or 425 or equivalent

FACULTY OF GRADUATE STUDIES (Continued)

Physical Education

New Course	568	Seminar in Human Motor Performance and Learning
Changes	563	Title and description changed: Measurement of Human Motor Proficiency
	565	Description changed
	570	Title and description changed: Research in Physical Education
	571	Title and description changed: Physical Education for the Atypical Student

Russian

New Courses	540) 541) 542) 543) 544)	Topics in Russian Literature

FACULTY OF HOME ECONOMICS

New Courses	303	World Problems in Nutrition
	409	Principles of Infant Nutrition
Changes	340	Replaced by the following two courses:
		340 Human Growth and Development I
		341 Human Growth and Development II
	342	Replaced by the following two courses:
		342 The Contemporary Family I
		343 The Contemporary Family II
	403	Unit value changed
Deletion	414	

FACULTY OF LAW

New Courses	331	Three new Seminars added: Civil Liberties Family Law Reform Conflict of Laws
Change	331	Description of one Seminar changed: Current Problems in Constitutional Law
	213	Jurisprudence - Description changed
Deletion	331	One Seminar dropped: Government Regulation of Business

SCHOOL OF NURSING

Baccalaureate Programme

Changes	Nursing 189	Description changed
	Nursing 281	Title and description changed: Introduction to Statistics and Research Method
	Nursing 382	Title changed: Maternal and Newborn Infants Nursing
	Nursing 454	Title and description changed: Epidemiology and Health Care
	Nursing 463	Description changed
	Nursing 489	Description changed
Deletion	Nursing 389	

Choice of options for final year students expanded

Diploma Programmes

(a) Nursing B. Public Health Nursing

Calendar Statement indicating changes proposed to curriculum - decision would not be available for 1969-70 Calendar.

(b) Nursing E. Psychiatric Nursing

To be offered in the 1969-70 Calendar. (Not offered during the 1968-69 session.)

(c) Course change

Nursing 336 - Description changed.

FACULTY OF PHARMACY

Changes	210	Title and description changed: Pharmaceutics II
	310	Title and description changed: Pharmaceutics III
	410	Title and description changed: Biopharmaceutics
	411	Title and description changed: Applied Pharmaceutics
	414	Title changed: Problems in Pharmaceutics and Biopharmaceutics
	415	Title and description changed: Topics in Pharmaceutics and Biopharmaceutics
	416	Description changed
	425	Description changed
	450	Description changed
Deletion	417	

Revision of Calendar Statement with regard to Options.

SCHOOL OF PHYSICAL EDUCATION AND RECREATION

Replacement of existing programme for specialization in Physical Education by a two-option programme, one to allow for a reduction in science content and the other to allow more concentration in science or psychology, for those students interested in advanced studies in physical education.

New Courses	Physical Education	391	Applied Anatomy and Physiology
	Physical Education	468	Human Motor Performance and Learning
Changes	Physical Education	221) 227)	unit value increased

SCHOOL OF REHABILITATION MEDICINE

Changes	201) 202)	Combined to form one course:

201 Medicine and Surgery II

SCHOOL OF REHABILITATION MEDICINE (Continued)

Changes (Cont'd.)

301) 302) Combined to form one course:

301 Medicine and Surgery III

404 Title changed: Rehabilitation I
406 Title changed: Rehabilitation II

FACULTY OF SCIENCE

Astronomy

New Course 449 Directed Research in Astronomy

Change 321 Separation of lectures and laboratories to give:

321 Astronomical and Astrophysical Measurements
331 Astronomical Laboratory

New Programme Combined Honours Astronomy and Physics

Chemistry

New Courses
410 Solid State Chemistry
411 Synthesis and Chemistry of Natural Products
413 Bio-Organic Chemistry
414 Coordination Chemistry
416 Physical Organic Chemistry
418 Organometallic Chemistry
419 Chemical Thermodynamics
420 Molecular Spectroscopy

Changes
303 Title and description changed
403 Unit value reduced; change in description
407 Unit value reduced; change in description
409 Renumbered as 330
412 Divided into two courses:
401 Quantum Chemistry
404 Advanced Inorganic Chemistry

Programme Changes Honours and Majors programmes (to incorporate new courses)

FACULTY OF SCIENCE (Continued)

Computer Science

New Course	410	Systems Programming
Changes	200	Title and description changed
	201) 210) 400)	Change in prerequisite

Geology

Change	401	Divided into two courses:
		404 Structural Geology
		419 Stratigraphy and Sedimentation

Geophysics

New Course (1970-71)	412	Introduction to Space Plasma Physics
Changes	300	Renumbered as 201 with same title but with revised course content
	302	Title and content changed
Programme Changes		Major Geophysics Combined Honours Geophysics and Physics Combined Honours Geophysics and Geology

Life Sciences

Biology

New Courses	200	Cell Biology I: Structural Basis
	201	Cell Biology II: Chemical Basis (Required courses in the second year of Majors and Honours programmes in Biology, Botany and Zoology)
	315	Protistology
	335	Fundamental Genetics (Summer Session only)
Change	340	Title and content changed
Programme Change		Majors and Honours programmes, First and Second Years - revised to incorporate new courses.

FACULTY OF SCIENCE (Continued)

Life Sciences (Cont'd.)

Botany

New Courses
- 209 Non-Vascular Plants
- 210 Vascular Plants
  (Required courses in the second year of both the Majors and Honours programmes in Botany)
- 310 Plants and Man
  (Proposed in response to a request from the Faculty of Arts)

Programme Changes: Revised Majors and Honours programmes

Microbiology

New Course
- 416 Applied Microbiology

Zoology

New Courses 1969-70
- 203 Comparative Animal Morphology (Half of present course 202)
- 204 Developmental Biology (Half of present course 302)
- 424 Comparative Histology and Histophysiology

New Courses, to be instituted not later than 1970-71
- 306 Vertebrate Zoology (Half the present course 202)
- 305 Invertebrate Zoology
- 349 Honours Tutorial

Changes 1969-70
- 304 Separation of lectures and laboratories as:
  - 307 Physiology
  - 308 Physiology Laboratory A
- 416 Title changed
- 420 Unit value reduced
- 421 Change in orientation, title and description
- 422 Renumbered as 323 with change in title and description; unit value reduced.
- 423 Title and description changed
- 428 Separation of lectures and laboratories as:
  - 428 Comparative Physiology (New title and description)
  - 429 Physiology Laboratory B

FACULTY OF SCIENCE (Continued)

Life Sciences (Cont'd.)

Zoology (Cont'd.)

Deletion 1969-70	412	
Programme Changes 1969-70		Revised Majors and Honours programmes

Mathematics

A complete reorganization of all courses offered by the Department of Mathematics.

(1) Courses numbered 100 to 140 to start in 1969-70.
(2) The new course Mathematics 400 to be given in 1969-70 and subsequent years but to be numbered Mathematics 423 until the fourth year of the new programme comes into effect.
(3) Courses numbered 200 to 222 to start not later than 1970-71.
(4) Courses numbered 300 to 499 to start not later than 1971-72.

Revised requirements for Majors and Honours programmes, and for combined Honours programme in Mathematics and Physics.

Physics

New Courses (Honours programme)	349	Directed Studies
	401	Electromagnetic Theory
	406	Continuum Mechanics
	449	Directed Studies
Changes	302	Title and description changed; unit value reduced.
	308	Title and description changed
(Honours Programme)	402	Title and description changed; unit value increased.
	408	Description changed; unit value reduced
	409	Unit value increased
	415	Renumbered as 403
(Majors programme)	302	(Majors section) - renumbered as 312
	315	(Majors section) - renumbered as 413
	401	Renumbered as 411; title changed
Deletions	307) 404)	(Both in the Honours programme)

FACULTY OF SCIENCE (Continued)

Physics (Cont'd.)

Programme Changes	Revision of Honours programme, and of combined Honours programmes in Physics and Mathematics, Physics and Geophysics, Physics and Chemistry, and Physics and a subject other than Mathematics, Geophysics or Chemistry.
	Revision of fourth year Majors programme.
	New combined Honours programme in Physics and Astronomy