Wednesday, December 16, 1970

The fourth regular meeting of the Senate of The University of British Columbia for the session 1970-71 was held on Wednesday, December 16, 1970 at 8:00 p.m. in the Board and Senate Room, Administration Building.

Present: President W. H. Gage (Chairman), Dr. A. E. Aho, Deputy President W. M. Armstrong, Mr. S. Black, Rev. J. Blewett, Mr. C. B. Bourne, Mrs. A. Brearley, Mr. D. M. Brousson, Dr. D. G. Brown, Dr. T. H. Brown, Mr. F. J. Cairnie, Mr. J. J. Campbell, Dr. S. D. Cavers, Dr. J. D. Chapman, Dr. D. H. Chitty, Dr. R. M. Clark, Dean I. McTaggart Cowan, Dr. B. A. Dunell, Dr. C. W. J. Eliot, Dean W. D. Finn, The Hon. E. D. Fulton, Dean J. A. F. Gardner, Dr. W. C. Gibson, Mr. G. H. D. Hobbs, Dr. S. Israels, Dean D. T. Kenny, Dr. W. D. Kitts, Mrs. W. T. Lane, Mrs. J. MacD. Lecky, Mr. G. A. Letcher, Dr. P. A. Lusztig, Miss E. K. McCann, Dr. A. J. McClean, Dean J. F. McCreary, Mr. J. A. McEwen, Dr. M. F. McGregor, Mr. J. R. Meredith, Mr. D. F. Miller, Dr. J. R. Mitchell, Dr. B. N. Moyls, Dr. J. M. Norris, Mr. E. O'Brien, Dean V. J. Okulitch, Mr. R. F. Osborne, Dr. P. H. Pearse, Dean B. E. Riedel, Dr. G. Rosenbluth, Mr. R. S. Sandhu, Dean N. V. Scarfe, Dean M. Shaw, Dr. J. H. G. Smith, Mr. A. M. Smolensky, Dr. J. K. Stager, Mr. B. Stuart-Stubbs, Dr. G. M. Volkoff, Dr. H. V. Warren, Dr. W. A. Webber, Dr. B. L. White, Dean P. H. White, Mr. A. P. York, Dr. W. D. Young.

Observers: Mr. J. A. Banham, Mr. J. P. Blaney, Mr. T. A. Myers.

Messages of regret for their inability to attend were received from: Chancellor A. M. McGavin, Mr. C. J. Connaghan, Mr. I. F. Greenwood, Mr. J. Guthrie, Dr. D. F. Hardwick, Mr. D. S. M. Huberman, Dr. J. M. Kennedy, Mr. S. S. Lefeaux, Mr. K. R. Martin, Mr. J. V. Rogers, Dr. I. Ross, Dr. R. F. Sharp, Mr. K. Waldman.

The Chairman mentioned that he had received a number of enquiries concerning the apparent discontinuance of the summary of Senate proceedings. Since many members of Faculty had indicated they found the summary useful he advised Senate that he had asked the Information Office to continue to produce the summary for distribution at least for the next few meetings of Senate, after which Senate would review the situation. It was explained that the cost of this publication was high.

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Minutes of the Previous Meeting

Dean Scarfe)
Mr. Fulton) *That the minutes of the third regular meeting of Senate for the session 1970-71 having been circulated, be taken as read and adopted.*

Carried

Business arising from the Minutes

A request was made for information on the number of students who voted in the recent elections for student membership on Senate. It was agreed that this information would be made available at the next Senate meeting.

The Chairman informed Senate that as requested he had now appointed members to a committee on evaluation of undergraduate student performance, grading and marking systems, etc., with Dr. Clark as Chairman.

Centre for Continuing Education

The Chairman reminded Senate that some time ago he had been asked to appoint a President's Co-ordinating Committee on Continuing Education. He stated that Senate and Faculty members had now been appointed to serve on this committee.

From the Board of Governors

Notification of approval of Senate recommendations, subject, where applicable, to the proviso that none of the programmes be implemented without formal reference to the President and the formal agreement of the President; and that the Deans and Department Heads concerned with new programmes be asked to indicate the space requirements, if any, of such new programmes.

(i) Subject to a review of the draft Act by President W. H. Gage and the University solicitor, the new Ecumenical Theological Centre be affiliated with The University of British Columbia. (Page 5327-9)

Wednesday, December 16, 1970

From the Board of Governors

Notification of approval of Senate recommendations, subject, where applicable, to the proviso that none of the programmes be implemented without formal reference to the President and the formal agreement of the President; and that the Deans and Department Heads concerned with new programmes be asked to indicate the space requirements, if any, of such new programmes. (Continued)

(ii) Changes in Agricultural Mechanics 300, 301 and 415, as recommended by the Faculty of Agricultural Sciences. (Page 5330)

(iii) New course descriptions as recommended by the Faculty of Dentistry. (Page 5322)

(iv) Medical Microbiology 447, as recommended by the Faculty of Medicine. (Page 5323)

(v) New courses and course changes as recommended by the Faculty of Graduate Studies in Nursing, Community & Regional Planning, and Pharmaceutical Sciences. (Page 5322-3)

(vi) Establishment of a Department of Anaesthesiology as recommended by the Faculty of Medicine. (Page 5331)

Committee on Prizes, Scholarships and Bursaries

Dean Scarfe)
Dr. Norris) *That the new awards listed in Appendix 'A' 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

Admissions Committee

Dr. Chitty introduced the report which was intended to clarify the requirements for admission of applicants from other provinces. The report proposed no change in current admission procedures except to revise the policy with respect to students from Ontario.

Reports of Committees of Senate

Admissions Committee (Continued)

The Secretary outlined the changes that had taken place over the past few years in the secondary school systems in the other provinces and the revisions in university admissions policy that were necessary to accommodate them. It was noted that the terms "junior" and "senior" in reference to "matriculation" were no longer relevant. With the abandonment of formal high school leaving examinations under governmental control in provinces such as Ontario and Manitoba, and in particular the freeing of Ontario secondary schools from a standard curriculum, it was unrealistic to continue giving university degree credit for studies taken in secondary school. The report recommended a policy with respect to Quebec students that was consonant with that of McGill University.

The fact that out-of-province applicants, except to Graduate Studies are subject to an application fee and that, moreover, they are not as freely admissible as students from this province, led to an adverse criticism of admissions policy as being discriminatory. It was pointed out that the policy in these matters was not significantly different from that of other public universities.

Mr. Cairnie) *That the statement as proposed be approved.*
Dr. McGregor)

The opinion was expressed that consideration of the proposal should be delayed pending an analysis of the enrolment of students from other provinces.

Mr. Smolensky) *That the motion be tabled.*
Mr. Fulton) Lost

Reports of Committees of Senate

Admissions Committee (Continued)

Concern was expressed as to the implications in an explanatory paragraph of the report that referred to conditions affecting the acceptability of out-of-province applicants.

In amendment:

Dr. Clark) *That the penultimate paragraph of the report*
Mr. Smolensky) *be referred back to the committee.*

Lost

The motion was put and carried.

It was agreed that modifications in the wording of the statement of policy were necessary. The following statement with explanatory note has incorporated the suggestions of various members of Senate:

Applicants from other Canadian provinces

The minimum academic qualification for admission is matriculation in a public university (i.e. eligibility for admission to a public university) in the applicant's own province, provided that the subject-matter presented and the standing obtained meet the requirements of The University of British Columbia, and:

(a) no university degree credit will be granted for studies completed in secondary school, but where studies have been taken beyond the usual secondary school level advance placement will be considered (i.e. consideration will be given to permit the starting of university studies at a higher level than usual);

(b) applicants from Newfoundland where Grade 11 represents the end of secondary schooling will require successful completion of at least First Year at Memorial University or the equivalent before consideration can be given to their transfer to The University of British Columbia;

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Reports of Committees of Senate

Admissions Committee

Applicants from other Canadian provinces (Continued)

(c) applicants from the Province of Quebec will normally be expected to hold le diplome d'etudes collegiales (D.E.C.), having completed the two-year academic course of studies at a college d'enseignement general et professionnel (CEGEP) and, upon acceptance would in general be given advance credit for the equivalent of one year of university studies; applicants could be considered for admission to the First Year following completion of Grade 12 or two semesters of a CEGEP.

Note: The University of British Columbia, under present conditions, is not able to accept all qualified applicants. Applicants must give their reasons for seeking admission to this University. Applicants seeking admission to Faculties offering professional studies are normally expected to have completed in full the pre-professional requirements at another institution.

Curriculum Committee

Dr. Norris presented the report of the Senate Curriculum Committee.

Faculty of Agricultural Sciences

In the report circulated to Senate the committee had recommended postponement of approval of Agricultural Economics 258 pending further consultation with the Department of Economics. Dr. Norris stated that discussions had taken place after the report had been published and approval was recommended.

Dr. Norris)
Dean Shaw)

That new courses, Agricultural Economics 101 and 258, recommended by the Faculty of Agricultural Sciences and outlined in Appendix 'B' page 5344, be approved.

Carried

Dr. Norris)
Dean Shaw)

That course revisions in Agricultural Economics outlined in Appendix 'B' page 5344, and calendar revisions, recommended by the Faculty of Agricultural Sciences be approved.

Carried

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Reports of Committees of Senate

Curriculum Committee

Faculty of Agricultural Sciences (Continued)

Dr. Norris)
Dean Shaw)

That course revisions in Plant Science, recommended by the Faculty of Agricultural Sciences and outlined in Appendix 'B' page 5344, be approved.

Carried

Faculty of Arts

Dr. Norris)
Dean Kenny)

That the new courses and course changes in Creative Writing, French, Portuguese and Theatre, recommended by the Faculty of Arts and outlined in Appendix 'B' page 5345, be approved.

Carried

School of Physical Education and Recreation

Dr. Norris)
Mr. Osborne)

That the new courses and course changes recommended by the School of Physical Education and Recreation and outlined in Appendix 'B' page 5345, be approved.

Carried

Nominating Committee

Student Membership on Senate Committees

Dr. Volkoff reported the following recommendations of the committee:-

Academic Building Needs - R. W. Jacobs; J. A. McEwan

Admissions - R. W. Jacobs; E. O'Brien

Agenda Committee - J. Davies; A. M. Smolensky

Appeals on Academic Standing - K. Waldman; A. P. York

Curriculum Committee - K. Waldman; J. J. Campbell

New Programmes - G. A. Letcher; R. S. Sandhu

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Reports of Committees of Senate

Nominating Committee

Student Membership on Senate Committees (Continued)

Nominating Committee - A. M. Smolensky

Tributes Committee - S. E. Garrod

University Library - Miss D. Allen; J. J. Campbell

Degree Programmes for part-time students - K. Waldman; Miss D. Allen

Native Indians - Proposed Introductory Programme - A. P. York;
R. S. Sandhu;
S. E. Garrod

5-Year Review Procedures of Faculties and Departments - E. O'Brien

Sociological Study on U.B.C. Students - R. W. Jacobs; Miss D. Allen;
G. A. Letcher

Standards for Physical, Financial & Academic Resources - E. O'Brien

Dr. Volkoff)
Dr. Chapman) *That Senate approve the recommendations of the Nominating Committee.*

Carried

Proposals of the Faculties

Dean Scarfe)
Dr. Mitchell) *That the proposals of the Faculties of Agricultural Sciences, Applied Science, Arts, Commerce and Business Administration, Education, Forestry, Graduate Studies, Science, and the School of Nursing, outlined in Appendix 'B', be referred to the Senate Curriculum Committee.*

Carried

The Chairman of the Senate Curriculum Committee reminded Senate that members who had queries on submissions from the Faculties and Schools referred to the Curriculum Committee should submit their comments to him within ten days of a Senate meeting.

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Proposals of the Faculties (Continued)

Dean Scarfe)
Dean Kenny) *That the extension credit course proposals recommended by the Faculties of Arts, Education and Science, and outlined in Appendix 'C', be approved.*

Following a brief discussion the motion was put and carried.

Mr. Bourne)
Dean Okulitch) *That the proposal for a Physical Geography Programme leading to a B.Sc. degree recommended by the Faculty of Science be referred to the New Programmes Committee.*

Carried

Academic Year 1971-72

The Registrar stated that this was the usual notice of events which appear in the Calendar each academic year with a suggestion that the mid-term break in February should be at the beginning rather than at the end of a week. This suggestion had been made as a result of strong criticism by some faculty members that interference with the offerings of sectioned laboratories was greater with the end-of-week cancellation of classes.

It was argued that this arrangement would work to the disadvantage of Education students.

Dean Scarfe)
Mr. York) *That the change in the mid-term break from the beginning to the end of the week not be approved.*

Following a brief debate it was agreed that the President should discuss this with the Deans of the Faculties concerned and arrive at a decision.

Reference was made to the date given for the last day for changes in courses. It was suggested that students could not adequately make up their minds within the two weeks allowed.

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Academic Year 1971-72 (Continued)

It was pointed out that many changes, for good reasons, are permitted after the deadline. It was argued, however, that many students were not aware that changes could be made after the announced date and therefore the wording should indicate the flexibility that in fact exists.

In amendment:

Dr. Clark)
Dr. Brown) *That the last day for changes in courses in most Faculties, except in exceptional circumstances with the permission of a Faculty advisor, be Friday, September 24, 1971.*

Following further discussion it was agreed that the matter should be referred to a small committee to be chosen by the Chairman of Senate.

Report on Registration 1970-71

The Registrar presented the report on Registration for 1970-71. He stated that this was the first time the University had imposed a limit on freshman enrolment. The limit set was "approximately 3,400" and the number enrolled as of December 1 was 3,399.

Last year's enrolment at the freshman level was 3,962. It was explained that it appeared that there was a reduction of 563 but, because the First Year students who had completed a partial year in the 1969-70 session were all promoted to the Second Year, the actual decrease was approximately 400. The opening of Douglas College in September of this year reduced the demand for places in the University First Year.

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Senate Membership

(i) Members appointed by the Lt. Governor in Council:-

Mr. C. J. Connaghan
Mr. G. H. D. Hobbs

(ii) Dr. B. A. Dunell, Department of Chemistry to replace Dr. R. A. Restrepo who is on leave-of-absence until June 30, 1971.

The Chairman welcomed Mr. Hobbs and Dr. Dunell to Senate. A letter of regret had been received from Mr. Connaghan for his inability to attend the meeting.

Proposals of Senate Members

A notice of motion had been given at the November 18, 1970 meeting of Senate by Mr. Smolensky.

Mr. Smolensky stated that he wished to draw Senate's attention to the lack of Canadian content and courses dealing with Canada. He stated that while some departments published a detailed description of their offerings no comprehensive list of courses had been compiled. He felt that an assessment should be made of what was offered in the way of studies about Canada, British Columbia and the Vancouver area. Once answers to these questions had been obtained Senate could consider in an informed light whether more emphasis might be put on these areas and on what one could call "the Canadian scene".

Mr. Smolensky)
Mr. Letcher) *That the Senate instruct the Academic Planner to undertake a survey of all courses in all faculties in order to determine which of these have significant relevance to either French or English Canada, be it in the social, political, economic, historic, legal, or scientific fields. Further, that he report back to Senate as soon as possible the number and a description of each of these courses.*

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Proposals of Senate Members (Continued)

A lengthy debate followed during which it was agreed that the motion be amended by the deletion of the words "be it in the social, political economic, historic, legal, or scientific fields".

In amendment:

Dr. Clark)
Mr. Campbell) *That the words "instruct the Academic Planner to undertake a survey" be replaced by "that the Senate request the President to have a survey undertaken".*

Some members felt that there was an implicit assumption that Senate was in favour of emphasizing Canadian studies and that if this was the policy such an elaborate study would not contribute much to it.

The amendment to the motion was put and carried.

The motion as amended was lost.

Mr. Cairnie stated that Senate should go on record as advocating a greater degree of Canadian content in courses offered in the University, and gave notice of the following motion:

> "As a matter of general practice in the preparation and delineation of course content and in the presentation of course materials, Faculty members will attempt to include in their courses as much Canadian content, examples, illustrative material and references as possible."

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Recommendations from the Long-Range Objectives Committee Report

(i) Recommendation 14

That the counselling service of the Office of Student Services be closely co-ordinated with counselling activities of the faculty, if necessary, under the same administrative authority; and that the Deans of the various faculties ensure that their respective faculty advisors are well informed of the subject matter and overall implications of their advice to students.

(ii) Recommendation 16

That faculties should come to grips with the question of student membership on curriculum committees, and devise clear, coherent faculty policies.

(iii) Recommendation 17

That departments, schools or faculties should provide for professionally designed questionnaires to be distributed annually to all graduate and undergraduate students for the purpose of securing regular and assessable expressions of student opinion concerning curriculum. Such questionnaires should include inquiries about proposals for change and improvement, as well as opinions about existing programmes.

Dr. Norris said that the Committee suggested that Recommendation 14 be dealt with by requesting the respective counselling services to study the possibility of improving their co-ordination, and that Recommendations 16 and 17 be referred to the Faculties for their consideration.

The Chairman stated that he had had discussions with the Vice-President of the A.M.S. regarding Recommendation 17 which was closely related to activities that are currently being undertaken by a committee of the Student Council.

Dr. Norris)
Dr. Warren) *That the Chairman of Senate refer these recommendations to those concerned and report back to Senate.*

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Recommendations from the Long-Range Objectives Committee Report (Continued)

In connection with questionnaires related to course and instruction evaluation that had been distributed by the A.M.S. at the end of the first term it was suggested that the arrangements left much to be desired.

The Chairman reported that he had suggested to members of the Student Council that Council members concerned should meet with each of the Deans and himself to discuss this matter further.

The question was raised as to the means of implementing the suggestion related to Recommendation 14. It was agreed that this matter should be discussed with those concerned.

The motion was put and carried.

Other Business

Dean McCreary informed Senate that the Faculty of Medicine proposed to establish a Department of Radiology and requested that this be referred to the New Programmes Committee in order that it might be placed on the Agenda for the January 1971 meeting of Senate. Senate agreed to this request.

Dr. Cavers argued that since students apparently interpret literally Calendar regulations that there should be a statement in the Calendar to the effect that a student may petition for a change in the regulations as they affect his studies.

The Chairman stated that any comments could be made at the next meeting.

Other Business (Continued)

Concern was expressed at the possibility of fraternity property being sold for the purpose of building a motel or hotel immediately adjacent to the campus. The Chairman explained that the land did not belong to the University but gave his assurance that a committee had been set up to endeavour to see that the University's interests were protected.

Dr. Young expressed concern at problems that are occasioned by "faculty rank" and suggested that its purpose be discussed. The Chairman said that he would provide an opportunity for Dr. Young to discuss the matter with an appropriate group of those concerned.

Mr. Osborne stated that the lease for the golf course on the University Endowment Lands had now expired. He felt that the University should request that the land be turned over to the University and that any proposed commercial or residential development should be opposed. The Chairman stated that although the University had no control over the allocation of the Endowment Lands concern would be expressed to those involved.

Mr. Brousson expressed concern regarding a recent article in the U.B.C. Reports concerning the Master Teacher Award. The Chairman stated that many steps were being taken to improve the quality of teaching, the Master Teacher Award being only one.

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The meeting adjourned at 10.45 p.m.

The next meeting of Senate will be held on Wednesday, January 20, 1971.

Secretary

Confirmed

Chairman

APPENDIX 'A'

New Awards Recommended to Senate

The Dr. Paul Alexander Donaldson Scholarship

Established in memory of Dr. Paul Donaldson, a member of the Class of 1969, who died during his last year of medical school but, because of previous high achievement, was awarded a post humous degree. As a tribute to his accomplishment and personal dedication, this scholarship has been donated by classmates, friends, and family. It will be awarded to a graduating student who, in the opinion of the faculty, has shown outstanding academic achievement and personal qualities over his years in Medical School.

Charles E. Frosst Medical Scholarship

A scholarship of $500 will be awarded annually to the third year student who, in the opinion of the awards committee, has shown most promise in the field of therapeutics. A suitably inscribed bronze medal will also be presented to each year's winner.

The Institute of Chartered Accountants of British Columbia Desmond O'Brien Memorial Scholarship

This scholarship of $600 has been established as a memorial to the late Desmond O'Brien, F.C.A. by the Institute as a tribute to his contribution to the accounting profession in British Columbia and in Canada. The award will be made on the recommendation of the Faculty to a student enrolled in the Licentiate of Accounting programme who has high academic standing and is deserving of financial assistance. At the discretion of the Faculty this sum may be divided between two or more students.

APPENDIX 'A'

New Awards Recommended to Senate (Continued)

The Sydney Elizabeth Price Memorial Bursary

As a memorial to their daughter, Sydney Elizabeth Price, a student at U.B.C. from 1968 to 1970 in the Faculty of Arts, a bursary has been established by her parents, Mr. and Mrs. J. E. Price of Calgary, Alberta. In the amount of approximately $250 annually, this bursary will be awarded annually to a women student in the Faculty of Arts who needs financial assistance and is entering the Third Year, and is taking a major or honours course in Political Science.

APPENDIX 'B'

Course and Curriculum Changes referred to Senate Curriculum Committee

FACULTY OF AGRICULTURAL SCIENCES

Animal Science

Changes	402	same course as Poultry Science 402
	322	change in description - to read as Poultry Science 322
	420	delete prerequisite Chemistry 230

Poultry Science

Changes	306	delete prerequisite Chemistry 230
	406	change in description, unit value, and number - now 402

Soil Science

Change	414	revised prerequisites - Soil Science 413 or consent of instructor

FACULTY OF APPLIED SCIENCE

Second, Third and Fourth Year Applied Science

Agricultural Engineering

Delete	Ap.Sc. 257; Physics 250; Mathematics 350
Second Year	Add - Ap.Sc. 251; Physics 253
Third Year	Add - Microbiology 417; Microbiology 418

Chemical Engineering

New Course	475	Process Control
Changes	250	revised title and description
	350	revised title and description
Second Year	Delete - Ap.Sc. 257; Add - Ap.Sc. 251	
Third Year	Add - Min. 373	

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FACULTY OF APPLIED SCIENCE (Continued)

Civil Engineering

New Courses	352	Introduction to Geodesy
	353	Elementary Photogrammetry
	373	Elementary Design I
	457	Plane Coordinate and Integrated Surveys
	459	Strength of Materials III
	462	Conceptual Design
	463	Elementary Design II
	464	Hydraulic Engineering
	465	Water Quality Studies
	473	Foundation Engineering II
	474	Mechanics of Materials
	490	Construction Engineering
Changes	355	hours reduced
	365	change in number and title
	370	hours changed
	451	revised title and description
	452	revised title and description
	453	revised title and description
	454	revised title and description
	468	change in hours
	470	revised description
	472	revised title and description
	475	number change from 517
	478	number change from 550
	355	to be offered in first term
	365	to be offered in second term
Second Year	Add - Physics 253; Ap.Sc. 251	
Third Year	Add - Mathematics 357	
Third & Fourth Years	Delete - Mathematics 350; Physics 250	
	468	change in hours

Electrical Engineering

New Courses	Ap.Sc.	
	251	Electrical Circuit Analysis
	E.E. 354	Electrical Engineering Problems
	364	Electronic Instruments
	365	Applied Electronics
	366	Electronics Theory and Applications
	370	Electrical Machines and Power Transmission

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FACULTY OF APPLIED SCIENCE

Electrical Engineering (Continued)

Changes	352	change in hours
	353	change in title, description and hours
	357	change in title and description
	361	change in title, description and hours
	463	revised title
	469	revised description
	471	revised title, description and hours
	475	revised description
	477	revised description

Deletions
Ap.Sc. 257
E.E. 351
363
465

Second Year
Add Mathematics 350
Delete Mathematics 364

Third Year (Core)
Add Mathematics 251
E.E. 354
Elective

Delete E.E. 359
M.E. 492

(Option I) Delete Mathematics 350

(Option II) Delete Mathematics 364

Fourth Year
Compulsory - Option I - change heading to Option I

Add 3 Compatible Electives

Compulsory Option II - change heading to Option II

Delete entire section beginning:

Electives - Option I and Option II

Engineering Physics

New Course	Physics 355	Basic Quantum Physics
Changes	Physics 453	revised title and description
	Physics 454	revised title and description
Delete	Physics 472	

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FACULTY OF APPLIED SCIENCE

Engineering Physics (Continued)

Second Year	Add	Computer Science 210 may be taken as an alternative to Computer Science 251
Third Year	Add	Physics 355 Mathematics 350 Computer Science 302
	Delete	Mathematics 364 Physics 352 Physics 353 Physics 354
Fourth Year	Alternative Course - Interim for 1971-72 only:	
	Replace	Physics 452 by Physics 452 or both of Physics 453 and 454 (for those students who did Physics 353 in Third Year)
	Delete	Physics 472

Geological Engineering

Curriculum changes - Split Option I into three parts in 4th Year:-

(a) Mining; (b) Petroleum, Coal; (c) General

Mathematics

Delete 364

Mechanical Engineering

New Course	385	Fluid Mechanics
Changes	384	revised description
	391	revised description
Second Year	Add	Ap.Sc. 251
	Delete	Physics 250
Third Year	Add	Mathematics 450
	Delete	Mathematics 350

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FACULTY OF APPLIED SCIENCE

Mechanical Engineering (Continued)

Fourth Year	Revised description of "Approved Elective in Fourth Year"
	'As an elective, a suitable undergraduate or graduate course outside of the Department or graduate course in the Department may be chosen, subject to the approval of the Department.'

Metallurgy

New Courses	461	Nuclear Metallurgy
	495	Tutorial (no academic credit)
Changes	350	revised hours
	478	number changed from 358
Second Year	Add - Ap.Sc. 251; Delete - Physics 250	
Third Year	Delete - Met. 378	
Fourth Year	Add - Met. 478	

Mineral Engineering

New Course	360	Elements of Mineral Engineering
Changes	370	revised title, description and hours
	371	revised title and contents
	372	change in hours
	373	number change from 271
	451	number change from 352
	457	change in hours
	472	revised content and hours

Physics

New Course	253	Introduction to Solid State Physics
Change	250	revised description and hours

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FACULTY OF ARTS

Anthropology & Sociology

New Courses — Sociology 460 (3) Sociology of special geographical areas
Sociology 480 (1½-3) Methods and Techniques in Sociological Research

Change — Anthropology 418 change in title and description

Delete — Sociology 355

Asian Studies

New Courses — Chinese 201 (3) Intensive Modern Chinese
Indic Languages 300 (3) Introductory Hindi
Indic Languages 400 (3) Intermediate Hindi

Changes — Asian Studies 105 change in number from 205
Asian Studies 115 change in number from 215
Chinese 200 unit value reduced from (6) to (3)
Chinese 301 change in description
Chinese 440 change in description
Japanese 440 change in description

Classics

New Course — 436 (3) Classical Thought

Economics

New Courses — 130 (1½) Introduction to Economic History
140 (1½) An Introduction to Economic Development

(Economics 130 and 140 replace Economics 100)

301 (1½) Intermediate Microeconomic Analysis
301 (1½) Intermediate Macroeconomic Analysis

(Economics 301 and 301 replace Economics 300)

343 (3) Economic Development of Asia
384 (1½) Economic Analysis of Health Services
417 (1½) Welfare Economics
434 (3) Modern European Economic History: Problems and Methodology
475 (1½-3) Regional Economics

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FACULTY OF ARTS

Economics (Continued)

Changes	309 (3)	change in number, unit value and description (formerly Economics 350 - 2)
	435	change in number and unit value, now Economics 492 (1½-3)

List of number changes:

New	Old	New	Old	New	Old
306	332	361	367	447	458
307	342	365	381	455	452
319	303	374	385	456	462
325	304	378	333	460	457
326	305	388	313	461	467
327	354	406	432	465	481
328	364	407	442	466	491
334	320	420	415	470	409
336	321	429	454	480	484
345	308	438	480	490	401
350	310	439	490	495	441
355	352	440	412	499	449
360	357				

Delete 100, 201, 300, 460

Fine Arts

New Courses

171 (3) Introduction to the Visual Arts
261 (3) History of the Art of the Americas
331 (1½-3) Early Christian and Byzantine Art
347 (1½-3) 19th and 20th Century Architecture
351 (1½-3) Chinese Art
353 (1½-3) Japanese Art
355 (1½-3) Art of India
359 (1½-3) Art of Southeast Asia
393 (3) History of the Film (Cross listing of Theatre 330)
395 (3) Film Aesthetics and Criticism
429 (1½-3) Studies in the Art of Greece and Rome (to be listed jointly as Classical Studies 429)
431 (1½-3) Seminar in Early Christian and Byzantine Art
433 (1½-3) Seminar in Medieval Art
435 (1½-3) Seminar in 15th and 16th Century Art
437 (1½-3) Seminar in 17th and 18th Century Art
439 (1½-3) Seminar in 19th and 20th Century Art

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FACULTY OF ARTS

Fine Arts

New Courses (Continued)

459 (1½-3) Seminar in the Art of Southeast Asia
461 (1½-3) Seminar in the Art of the Americas
465 (1½-3) Seminar in Canadian and American Art
497 (3-6) Direct Study Abroad

Changes

125 change in title
181 change in number and title, formerly 228
251 change in number and title, formerly 326
281 change in number, title and description, formerly 238
329 change in number and unit value, formerly 330
333 change in number, title, description and unit value formerly 325
335 change in number, title and unit value, formerly 430
337 change in number, title, description and unit value formerly 432
339 change in number, title and unit value, formerly 425
365 change in number, description and unit value, formerly 327
375 change in number and title, formerly 439
381 change in number, title and description, formerly 335
383 change in number and title, formerly 328
385 change in number and title, formerly 434
387 change in number and title, formerly 428
451 change in number, title, description and unit value, formerly 426
453 change in number, title, description and unit value, formerly 427
455 change in number, title, description and unit value, formerly 429
477 change in number and title, formerly 438
481 change in number, title and description, formerly 435

List of number changes:

331 to 371; 436 to 373; 446 to 471; 431 to 473; 449 to 499

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FACULTY OF ARTS

Geography

New Courses	100	Introduction to Geography
	200	Human Geography
	201	Locational Analysis
	310	Atmosphere and Environment
	379	Physical Geography Field Course
	411	Microclimatology
	417	Permafrost and the Arctic and Alpine Environments
Changes	212	change in title and description
	214	change in title and description
	311	change in number, title and description, formerly 312
	351	change in title and description
Delete	102	

History

New Course	308 (3)	Economic History of Europe, 1350-1750
Change	431	change in title and description

Home Economics

New Courses	351 (1½)	Human Physical Growth and Development
	400 (1½)	Contemporary Issues in Home Economics
	404 (1½)	Family Sciences Seminar
	476 (1½)	Directed Study in Home Economics
Change	340	change in number to 240

Linguistics

New Course	100 (3)	Introduction to General Linguistics
Change	319	change in description

Music

New Course	325 (3)	Fifteenth and Sixteenth Century Music
Change	425	change in title

Delete old 325

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FACULTY OF ARTS

Philosophy

New Courses
201 (3) Problems in Ethics and Social Philosophy
498-499 (1½-3) Directed Reading

Changes
200 change in description
414 change in description

Political Science

New Courses
333 (3) French Canada (Joint listing of course already offered as French 333 and Economics 383)
444 (3) Problems in strategy, national security and arms control

Religious Studies

New Courses
202 (3) Introduction to the study of Western religious traditions
204 (3) Introduction to the study of Eastern religious traditions
324 (3) Religion in America
341 (3) Islamic Art & Architecture
362 (1½) Japanese Buddhism
400 (3-6) Seminar in Phenomenology of Religion
406 (3) Biblical (Old Testament) Exegesis
410 (1½) Biblical (New Testament) Exegesis
412 (3) Problems in the study of religion
420 (3) Religion in Canada
450 (1½) Advaita Vedanta
451 (1½) Hindu Theism
470 (1½) Research methods and bibliography
500 (3) Reading and research in selected areas of the religious literature and traditions of the Western world
503 (3) Reading and research in texts and literature of the Christian tradition
510 (3) Reading and research in selected areas of the religious texts and traditions of South and East Asia

Changes
100 change in number, formerly 200
300 change in number, formerly 407
405 change in number, formerly 304
311 change in number and unit value, formerly 406
352 change in number and unit value, formerly 410
360 change in number and unit value, formerly 411
361 change in number and unit value, formerly 412

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FACULTY OF ARTS

Religious Studies

Changes (Continued)

421 change in number and unit value, formerly 400
422 change in number and unit value, formerly 401
463 change in number and unit value, formerly 413
310 change in title, number, and unit value, formerly 405
323 change in number, title and description, formerly 205
301 change in number, unit value, title and description
302 change in number, unit value, title and description (301-302 replace 305)
350 change in number, unit value, title and description
351 change in number, unit value, title and description (350-351 replace 300)
411 change in number, unit value, title and description (formerly 306)

Delete 302, 307, 308, 421 and Hebrew 300

Slavonic Studies

New Course Russian 480 (6) Advanced workshop in Russian language

Change Russian 430 change in title and description

Delete Slavonic Studies 514; Comparative Philology 420

FACULTY OF COMMERCE AND BUSINESS ADMINISTRATION

Industrial Relations

Changes Courses split, and description and title change:

321 - now 320 and 321
324 - now 324 and 325
422 - now 421 and 422

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FACULTY OF EDUCATION

Elementary Division

New Course 489 (3) Applied Linguistics for Teachers (to be offered in lieu of one section of English 309)

Changes 441 to 447 to be removed from list of electives

300, 301, 305 now F.A. 100, F.A. 201 and Ed. 425

Secondary Division

New Courses
- 493 (1½) Introduction to the study of Higher Education
- 494 (1½) Communications Media Programmes in Schools - Motion Picture Film and Television
- 495 (1½) Still Photography Production in Education
- 496 (1½) Motion Picture Production in Education

New Programmes and changes in Programmes

New Honours, Art Education (Ed. 449 Art Education)

Delete Guidance Concentration

Changes
- 200 change in description
- 481 change in description
- 482 title and description change
- 483 title and description change
- 484 title and description change

F.A. 300 to become F.A. 100
F.A. 301 to become F.A. 201

FACULTY OF FORESTRY

New Courses
- 125 (1½) Forest Resources Use
- 280 (3) Harvesting and Manufacture of Forest Products (to replace Forestry 263 and 380)
- 345 (1) Seminar
- 409 (1½) Forest Ecosystem Laboratory

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FACULTY OF FORESTRY

Changes	111	change in description, unit value and hours
	204	change in description
	304	change in description, unit value and hours
	248	change in unit value
	380	change in unit value and hours
	499	change in unit value
	146	change in hours
Delete	English 150, M.E. 154, Forestry 263, Forestry 310	

FACULTY OF GRADUATE STUDIES

Agricultural Sciences

Agricultural Engineering

New Courses	554 (1½)	Instrumentation for Biomaterial Research
	555 (1½)	Load Response of Biomaterials (replaces A.E. 582)
	571 (1)	Bio-Machine Systems
	572 (1½)	Soil-Machine Systems
	590 (1-2)	Waste Treatment in Agricultural and Food Industries
Changes	563	change in title and description
	565	change in title and description
Delete	582	

Food Science

New Courses	508 (1½)	Biorheology
	509 (1)	Food Enzymes

Plant Science

New Course	504 (3)	Principles, Techniques and Problems in Applied Plant Ecology
Changes	500	change in unit value
	501	change in number, now 511
	507	change in number, now 513

Poultry Science

New Course	524 (1½)	Advances in Poultry Nutrition III

FACULTY OF GRADUATE STUDIES (Continued)

Applied Science

Civil Engineering

New Courses	564 (1)	Engineering Management of Solid Wastes
	569 (1)	Advanced Studies in Waste Treatment
	573 (1)	Numerical Methods in Soil Mechanics
Changes	529	change in description
	540	change in description
	541	change in description
	567	change in description
	568	change in description
	535	change in title and description

Electrical Engineering

New Courses	596 (1)	Optical Signal Processing I
	598 (1)	Optical Signal Processing II
Changes	573	change in description
	577	change in description
	595	change in description
	553	change in unit value and description
Delete	559 and 567	

Mechanical Engineering

Change	558	change in description

Metallurgy

New Course	558 (2)	Corrosion

Mineral Engineering

New Courses	554 (1)	Mineral Property Evaluation
	572 (2)	Properties of Interfaces (Combination of Min. 571 (1) and 572 (1)
	573 (1)	Treatment of Mineral Industry Effluents
	574 (2)	Corrosion (Same as Met. 558)
Changes	551	change in description
	552	change in description

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FACULTY OF GRADUATE STUDIES (Continued)

Arts

Economics

New Courses 610 (1½) Current Issues in Public Finance
680 (1½) The Economics of Federalism

Change 506 change in unit value

Deletions 507 (replaced by Economics 557 and 567)
510 (replaced by Economics 580 and 590)

Changes in course numbers:

502	formerly	550	555	formerly	552	615	formerly	600
503	"	551	556	"	562	629	"	604
519	"	503	560	"	557	641	"	612
520	"	515	561	"	567	645	"	608
521	"	516	565	"	581	652	"	680
525	"	504	566	"	591	653	"	506
530	"	520	570	"	509	654	"	610
540	"	512	590	"	535	655	"	652
545	"	508	592	"	536	660	"	657
550	"	580	594	"	540	661	"	667
551	"	590	599	"	549			

French

New Course 519 (3) The Language and Literature of Old Provencal (Replacing Romance Studies 519)

Changes 503 change in content and title
507 change in title
510 change in title
511 change in title
513 change in title
515 change in title

Geography

New Course 516 (1½-3) Heat and Water Balance Climatology

Change 504 change in title

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FACULTY OF GRADUATE STUDIES

Arts (Continued)

History

Changes in courses and course titles:

From	570-574 (3)	Readings in Asian History
To	570 (3)	Readings in Comparative Asian History
	571 (3)	Readings in Chinese History
	572 (3)	Readings in Japanese History
	573 (3)	Readings in Southeast Asian History
	574 (3)	Readings in South Asian History
From	575-579 (6)	Seminar in Comparative Asian History
To	575 (6)	Seminar in Comparative Asian History
	576 (6)	Seminar in Chinese History
	577 (6)	Seminar in Japanese History
	578 (6)	Seminar in Southeast Asian History
	579 (6)	Seminar in South Asian History

Mathematics

New Course	528 (3)	Methods of Applied Mathematics

Forestry

New Courses	507 (1-3)	Problems in Forest Protection
	508 (2)	Forest Insect Ecology

Medicine

Biochemistry

Change	500 (1-6)	to Biochemistry 500 (1) and Biochemistry 501 (1-3)

Paediatrics

New Courses	506 (2)	Speech Perception
	507 (3)	Neurological Aspects of Language
Changes	500	change in title and description
	501	change in title and description
	502	change in title and description
	503	change in title and description
	504	change in title and description
	505	change in title and description

FACULTY OF GRADUATE STUDIES (Continued)

Science

Geophysics

New Course	Astronomy 500 (3)	Principles of Modern Astronomy
Changes	Astronomy 501	change in description
	520	change in title
	515	change in course
	561	change in course
Delete	Astronomy 562	

Physics

Change	526 (1)	Quantum Theory of Radiation now Physics 526 (2) Intermediate Quantum Mechanics

Zoology

Changes	520	change in description
	522	change in description
	527	change in description

Community & Regional Planning

New course	525 (1½)	Environmental Planning II

SCHOOL OF NURSING

New course	357 (3)	Perspectives in Nursing
Changes	189	change in description
	252	change in number, unit value and description, now 253 (3) Human Behaviour
	267	change in description
	280	change in unit value
	366	change in description and unit value
	460	change in unit value
	463	change in title, description and unit value
Delete	154, 252, 356, 531	

SCHOOL OF NURSING (Continued)

Baccalaureate 'A' Programme

First Year	Add Pathology 375 Delete Nursing 154
Second Year	Add Pathology 375 for 1971/72 only

Baccalaureate 'D' Programme

Second Year	Add Nursing 253 Delete Nursing 252 and Nursing 356
Third Year	Add Nursing 357 Revise Nursing 366 (1-3)

Baccalaureate 'A' and 'D' Programmes

Fourth Year

Changes	463	change in description
	* 460	change in unit value

Diploma Programmes

Nursing 'C' discontinued

Master of Science in Nursing

First Year	Add Nursing 532 Nursing 521 add prerequisite Nursing 281 Delete Nursing 531
Second Year	Add Nursing 533

FACULTY OF SCIENCE

Astronomy

Changes	321	change in number, now 421
	331	change in number, now 431
	421	change in number, now 500

*Nursing 460 - disregard this change

FACULTY OF SCIENCE (Continued)

Biology

New course for Summer Session 323 (3) General Ecology

Changes
311 change in description
321 change in title and description
322 change in title and description
405 change in unit value and description
422 change in number formerly Microbiology 322

Genetics in Marine Biology Option

Biology 334 required of all students in Marine Biology Option

Bamfield Marine Station

New Courses
Biology 400 (3) Directed Studies
410 (3) Marine Invertebrate Zoology
420 (3) Marine Phycology
430 (3) Marine Ecology

Botany

Changes
303 split into two courses:
308 (1½) Structure and reproduction of Fungi and
309 (1½) Physiology and Ecology of Fungi
402 change in description
440 change in description
435 change in description

Chemistry

New Courses
335 (3) Inorganic Chemistry for Biological Sciences
422 (1) Intermediate Organic Chemistry Laboratory

Change
423 change in description

FACULTY OF SCIENCE (Continued)

Computer Science

Changes	200	change in description
	400	change in description and prerequisite
	302	change in prerequisite
	311	change in prerequisite
	405	change in prerequisite
	421	change in prerequisite

New Programme Combined Honours in Computer Science and Mathematics

Geology

New Courses	312 (1)	Environmental Geology
	359 (1½)	Ore Microscopy for Mineral Engineers
Changes	410	change in description
	419	change in description

Summer session course 1971 385 (3) Investigating the Earth

Geophysics

Change 400 change in unit value, title and description

Change in Geophysics Major Program and Astronomy Major Program

Third year - substitute Mathematics 301 for Mathematics 323

Changes in Geophysics and Physics Combined Honours

Third year - substitute Mathematics 301 for Mathematics 323
Fourth year - substitute Mathematics 300 for Mathematics 423

Changes in Honours Geophysics and Geology Combined

Second year - added Mathematics 120 (1)
Third year - substitute Mathematics 301 for Mathematics 300
Fourth year - substitute Mathematics 300 for Mathematics 410
change Elective to read (3-5)

New Programme Geophysics Honours

FACULTY OF SCIENCE (Continued)

Mathematics

Changes
300 change in title and description
301 change in title and description
400 change in description
413 change in description
421 change in description
423 change in description
424 change in description
425 change in description

Microbiology

Changes
307 change in title
321 change in unit value, title and description
322 converted to Biology 422
323 split into two courses:
324 (1½) Bacterial Growth and Metabolism and
325 (1½) Introductory Bacterial Genetics
402 change in description
405 change in description
408 delete from description "Prerequisite - Microbiology 402"

Changes in Majors and Honours Programs:

Third Year — Majors and Honours

Drop Microbiology 322
Add Microbiology 324

Fourth Year — Major

Add Biology 422 (elective) (1½)

Honours

Add Biology 422 (elective) (1½)
Microbiology 405 elective rather than required

Requirements for a combined B.Sc. (Honours Microbiology) - M.D. or D.M.D.

1st, 2nd and 3rd Years as for Honours Microbiology B.Sc.
4th Year - Microbiology 430, 449, Microbiology elective (3rd or 4th Year), Physiology 400, Anatomy 400

FACULTY OF SCIENCE (Continued)

Physiology

New Course	427 (1½)	Advanced Topics in Respiratory Physiology
Change	421	change in title and description

Zoology

New Courses	310 (1½)	Comparative Biology of Reproduction
	348 (1½ or 3)	Zoology Tutorial

APPENDIX 'C'

Extension Credit Courses May-July 1971

FACULTY OF ARTS

Anthropology		301	Indians of B.C.
		400	Readings in Theory
		412	Introduction to Anthropological Problems
		416	Political Anthropology
Economics		200	Principles of Economics
		300	Intermediate Economic Analysis
		401	Applied Economics
English		200	Literature and Composition
		303	English Composition
		340)	The English Novel
	OR	380)	Eighteenth-Century Literature
		365	Shakespeare - In-the-Field, London & Stratford-upon-Avon, England
		391)	The Romantic Period
	OR	392)	Victorian Poetry
		425	British Drama, 1880 to the Present
		454	American Fiction
History		326	British North America, 1763-1867
		329	Social Development of Canada
		429	History of the American West
Philosophy		212	Logic and Scientific Reasoning
Political Science		315	Communist Chinese Government and Politics - In-the-Field, China
Psychology		200	Experimental Psychology
		308	Social Psychology
		316	Methods in Research
		409	Cognitive Processes
Sociology		250	Introduction to Quantitative & Formal Theoretical Sociology
		353	Work and Industry
		354	Communities
		361	Social Stratification
		466	Sociology of Education
Fine Arts		430	Art of the Renaissance - In-the-Field, Florence

Correspondence

Psychology	200	Experimental Psychology

APPENDIX 'C'

Extension Credit Courses May-July 1971 (Continued)

FACULTY OF EDUCATION

Education 331	Human Development
Education 332	Psychology of Adolescence
Education 333	Curriculum & Instruction for Young Children
Education 470	Educational Sociology
Education 472/473	Developmental Reading - Theoretical/Practical - Elementary Grades
Education 475/476	Remedial Reading - Theoretical/Practical
Education 576	Advanced Seminar in the Supervision of Instruction

Summer Session 1971

Education 440)	Special Study in a Subject-matter Field
Education 449)	Supervised Study -- Historial and Geographical Studies, In-the-Field, England
Education 479	Cross Cultural Education (Native Indians)

FACULTY OF SCIENCE

Mathematics 305	Statistics